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SWEDISH CLIMATE-CHANGE MITIGATION FINANCE

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Foreword by EBA

The Paris Agreement sets ambitious targets for limiting global warming. To achieve these targets, a significant shift in global energy systems and investment patterns will be required. Climate aid plays a crucial role in enabling developing countries to transition to low-carbon economies and build climate resilience. Understanding the effectiveness of climate aid initiatives, including those undertaken by Sweden, is essential to making informed policy decisions and ensuring that resources are allocated efficiently.

This report investigates the role of Swedish climate aid in achieving the objectives of the Paris Agreement, with a particular focus on catalytic climate-change mitigation finance. The authors have analysed the portfolios of three key institutions: the Swedish International Development Cooperation Agency (Sida), Swedfund, and the Nordic Development Fund. The analysis reveals that, while the expected contributions to short-term climate-change mitigation are limited, the portfolios do demonstrate a commitment to sustainable development and low-emissions pathways for developing countries. The report also highlights the importance of transparency and data sharing to enhance the effectiveness of climate aid initiatives.

We believe this report will be useful to Swedish policymakers and officials at the Ministry for Foreign Affairs and the Ministry of Climate and Enterprise. We also hope the report will prove relevant to Swedish and international development actors in their support of climate-change mitigation.

The study has been supported by a reference group chaired by Kim Forss, formerly of EBA. The authors are solely responsible for the content of the report.

Stockholm, October 2024

Torbjörn Becker, EBA Chair

Kim Forss

Sammanfattning

Den här rapporten utforskar hur det svenska klimatbiståndet kan bidra till att uppnå målen i Parisavtalet. Rapporten fokuserar på hur Sida, Swedfund och Nordiska utvecklingsfonden (NDF) kan använda katalytisk finansiering för att minska utsläpp. Syftet är att utvärdera om deras insatser kan bidra till den utsläppsminskning som krävs för att hålla den globala uppvärmningen under 1,5 grader.

Rapporten bygger på tre portföljutvärderingar genomförda av Stockholm Environment Institute, IVL Svenska Miljöinstitutet och Perspectives Climate Research. Dessa utvärderingar har bedömt i vilken utsträckning institutionernas klimatinvesteringar kan bidra till de omfattande förändringar som krävs för att nå 1,5-gradersmålet till 2030.

Utvärderingarna är så kallade *ex ante*-utvärderingar, vilket innebär att de bygger på förväntade resultat snarare än faktiska utfall. De undersöker om investeringarna kan bidra till att minska utsläppen, utifrån kriterier för en så kallad ”transformativ klimatfinansiering”. Dessa kriterier har tagits fram av Transformational Change Learning Partnership (TCLP) inom Climate Investment Funds (CIF) och handlar om att investeringarna ska ske i stor skala, snabbt, på ett sätt som leder till mer grundläggande förändringar i samhället och att de ska vara relevanta för de lokala förutsättningarna. Utöver dessa krav har vi även tittat på om investeringarna är additionella.

De utvärderade portföljerna för finansiering av utsläppsminskning

De tre institutionerna – Sida, Swedfund och NDF – använder olika typer av finansieringsverktyg i de portföljer som utvärderats. Sida använder främst bidrag, Swedfund en kombination av investeringar och lån, och NDF använder både bidrag, investeringar och förmånliga lån. Det finns en del överlappning mellan institutionernas investeringar, där flera projekt får stöd från två eller till och med alla tre.

Afrika söder om Sahara är det område där de flesta projekten finns, särskilt i länder som Moçambique, Kenya, Rwanda och Uganda. Även Asien är en viktig region, framför allt för Swedfund och i mindre utsträckning för NDF.

Portföljerna har ett gemensamt fokus på energisektorn, särskilt förnybar energi. För att se direkta resultat i form av minskade utsläpp måste vi vänta till slutet av 2030-talet eller ännu längre in på 2040-talet. Sidas projekt är ofta kortare och inriktade på att bygga upp grunden för framtida förändringar, till exempel genom att stärka lokala institutioner eller utveckla nya marknader. Dessa indirekta effekter är viktiga, men bidrar inte direkt till att minska utsläppen på kort sikt.

Sammanfattningsvis visar analysen att portföljerna inte är primärt utformade för att ge snabba resultat i form av minskade utsläpp till 2030.

Den transformativa potentialen kan förbättras

Sammantaget följer de tre portföljerna de riktlinjer som FN:s klimatpanel (IPCC) har satt upp för att främja klimatinvesteringar i utvecklingsländer. Trots det finns det utrymme för förbättringar när det gäller att driva på mer grundläggande förändringar, enligt de kriterier som tagits fram av TCLP. Av de 67 investeringar som utvärderades fick 16 höga betyg, varav fem nådde högsta möjliga poäng.

TCLP-kriterierna är en utgångspunkt för att utvärdera klimatinvesteringar, men det är inte den enda. En slutsats är i alla fall att varje institution behöver vara tydligare med hur just deras medel ska bidra till den nödvändiga omställningen. Det gäller både för enskilda projekt och för hela portföljen. När flera institutioner investerar i samma projekt eller område ökar dessutom risken för bristande additionalitet. För att säkerställa att varje investerad krona verkligen gör nytta är det viktigt att varje institution kan visa hur deras bidrag kompletterar de andra.

De flesta projekt som finansieras av de tre institutionerna har flera mål. Utöver att minska utsläppen syftar de även till att bidra till en mer hållbar utveckling genom att främja ekonomisk tillväxt, skapa arbetstillfällen och stärka jämställdheten.

Portföljerna kan stödja en långsiktig utveckling med låga utsläpp

Portföljernas förmåga att bidra till minskade utsläpp på kort sikt påverkas av faktorer som var projekten genomförs och vilken typ av insatser som finansieras.

De utvärderade portföljerna fokuserar främst på Afrika söder om Sahara, en region med stora utvecklingsbehov men förhållandevis låga totala utsläpp. Detta innebär att potentialen för snabba utsläppsminskningar genom dessa portföljer är begränsad

Eftersom portföljerna i första hand är inriktade på hållbar utveckling i utvecklingsländer förväntas de inte, i någon större utsträckning, bidra till att minska utsläppen fram till 2030. De syftar i stället till att stödja hållbar ekonomisk utveckling med låga utsläpp och kan därför förväntas vara relevanta för långsiktiga insatser för att bekämpa klimatförändringar. Samtidigt är insatserna tydligt inom ramen för utvecklingsuppdraget alla tre utvärderade institutioner har.

Behov av ökad transparens

Rapporten understryker behovet av ökad transparens i den svenska finansieringen av klimatinsatser. Detaljerad data på projektnivå är avgörande för att bedöma resultat, identifiera framgångsrika metoder och säkerställa att medlen används effektivt. Transparens kring finansiering och förväntade/uppnådda resultat är också viktigt för att stödja utvecklingen av lokala marknader.

Transparens är inte bara viktigt för lärande och samordning, utan också för att upprätthålla trovärdigheten i det svenska klimatarbetet. Bristande transparens kan undergräva förtroendet för klimatfinansieringsinsatser, både bland svenska skattebetalare och människor i samarbetsländer. Transparens är avgörande för att bygga förtroende för insatser och strategier för att minska klimatpåverkan.

Summary

This report investigates the role of Swedish climate aid in achieving the objectives of the Paris Agreement. The focus is on catalytic climate-change mitigation finance and the initiatives of three key institutions: the Swedish International Development Cooperation Agency (Sida), Swedfund and the Nordic Development Fund (NDF). The aim has been to evaluate whether the funding for climate-change mitigation provided by these institutions can contribute significantly to the climate-change mitigation necessary to achieve the objectives of the Paris Agreement.

The report is based on three portfolio evaluations conducted by teams from Stockholm Environment Institute, IVL Swedish Environmental Research Institute, and Perspectives Climate Research. The teams have evaluated the potential of the climate investments to contribute to the significant change needed to achieve the necessary reduction in emissions by 2030 to keep global warming to no more than 1.5°C.

The evaluations are *ex ante*, i.e., based on expected results rather than actual outcomes. They discuss potential contributions towards overall climate-change mitigation objectives based on the five dimensions of transformative climate finance identified by the Transformational Change Learning Partnership (TCLP) of the Climate Investment Funds (CIF). The dimensions used in the evaluations are: speed, scale, systemic change and relevance. We also consider additionality.

The evaluated climate-change mitigation finance portfolios

The mitigation finance portfolios of Sida, Swedfund, and NDF are financially diverse, with each institution using a different mix of financial instruments. Sida primarily uses grants, Swedfund a blend of equity and debt, and NDF a mix that includes grants and equity

as well as concessional loans. The portfolios have some overlap, with several projects having two or three of the institutions as investors or financiers.

All three portfolios focus strongly on sub-Saharan Africa, with sizable projects implemented in Mozambique, Kenya, Rwanda and Uganda. Asia is also an important region for Swedfund and, to a lesser extent, NDF.

The portfolios share a common theme in that their primary focus is on the energy sector, with renewable energy generation as the key subsector. In terms of direct mitigation, results should not be expected until the late 2030s and into the 2040s. Sida's projects are generally more short term and primarily aimed at indirect mitigation, such as capacity- and institution-building, developing markets and influencing energy policy.

Mapping the portfolios provided an immediate answer to the question of whether they can provide mitigation results by 2030, insofar as they are not primarily intended to do so.

Transformational potential can be improved

In general, the chosen modalities in the three portfolios are in line with recommendations from the Intergovernmental Panel on Climate Change (IPCC) on how to mobilise mitigation resources in developing countries. Evaluation in the TCLP dimensions does however suggest that all three portfolios could increase their transformative potential. Out of 67 investments, 16 score high in the assessment, with five achieving a maximum score.

While the TCLP dimensions speed, scale, systemic change and relevance are one point of departure, this is not the only approach. All three institutions need to clearly articulate how their funds are intended to contribute to the necessary change, both on a project and portfolio level. The report also highlights how the evaluated

portfolios overlap; unless the three institutions clearly articulate how they are adding value, there is obviously a risk for low additionality.

Most projects and investments funded by the three institutions have additional expected outcomes beyond climate-change mitigation. In line with the institutions' mandates, projects are also intended to contribute to poverty reduction through, for example, economic development, job creation, gender empowerment and other social benefits.

The portfolios can support low-emissions development in the long term

The potential contribution of portfolios to climate-change mitigation in the short term also depends on the geographical location, mitigation objectives and the types of interventions in the projects the institutions finance.

The primary focus of the evaluated portfolios is on Africa, specifically countries in sub-Saharan Africa. While these countries are important from a development perspective, at present they are not significant emitters of greenhouse gases, clearly limiting the potential for mitigation in the short term; after all, when emissions are limited, so are the potential reductions.

Being primarily focused on sustainable development in less developed countries, the portfolios are not expected to significantly contribute to mitigation by 2030. They do, however, aim to support low-emissions development pathways and can therefore be expected to be relevant for long-term efforts to combat climate change while remaining within the development remit of all three evaluated institutions.

Greater transparency needed

The report emphasises the need for greater transparency in Swedish climate-change mitigation finance. Granular project-level data is crucial to assessing effectiveness, identifying successful approaches and ensuring that funds are used effectively. Transparency concerning finances and expected/achieved mitigation results is also essential for supporting market development.

Transparency is not only important for learning and coordination but also for maintaining credibility. A lack of transparency may undermine trust in climate finance efforts, both among Swedish taxpayers and people in partner countries. Transparency is essential to building trust in mitigation efforts and policies.

1 Introduction

Climate change is one of the crucial issues of our time and, through the Paris Agreement, the countries of the world have agreed to rapidly reduce global emissions. According to the Intergovernmental Panel on Climate Change (IPCC), global greenhouse gas emissions must be halved by 2030 if we are to achieve the Paris Agreement's target of keeping global warming to no more than 1.5°C.

Developed countries need to mobilise significant funding for climate-change mitigation and adaptation in developing countries. At the 2009 United Nations Climate Change Conference, commonly known as the Copenhagen Summit, developed countries pledged new and additional long-term finance of US\$ 100 billion annually by 2020 to support developing countries in adapting to and mitigating the effects of climate change.¹ A starting point for achieving this objective is that public efforts must be made to mobilise private capital.²

Since the Paris Agreement, Sweden has identified development cooperation as a tool to mobilise private capital and contribute to climate change mitigation in developing countries. This is stated in government policies, budget bills and strategies. Both the current and previous Swedish governments have specified that Swedish climate aid shall mobilise private capital for climate-change mitigation through so-called "catalytic aid". One objective in both the Government's Climate Action Plan and its recently released policy for Swedish aid is to ensure that Swedish climate aid is more catalytic and contributes to significant mitigation results.³

¹ UNFCCC, Copenhagen Accord, 2009.

² A new financing target is also currently being negotiated, set to be agreed at COP29 later in 2024.

³ Swedish Government (2023), Written communication 2023/24:59, The Government's Climate Action Plan: All the Way to Net Zero, Swedish Government (2023) Development Assistance for a New Era Freedom, empowerment and sustainable growth.

So, Swedish goals are ambitious. The question then is: To what extent does Swedish climate finance actually contribute to the implementation of the Paris Agreement? Or, to quote Greta Thunberg, is it simply: “Green economy. Blah blah blah. Net zero by 2050. Blah, blah, blah.”⁴

This report explores a limited part of Swedish climate aid – catalytic climate mitigation finance. This aid is intended to mobilise additional resources for climate-change mitigation (for a more in-depth definition, see page 12). More specifically we are focusing on mitigation efforts funded by three key institutions: the Swedish International Development Cooperation Agency (Sida), Swedfund and the Nordic Development Fund (NDF).

Given the urgency of the climate crisis, the purpose of this report is to provide a better understanding of whether climate-change mitigation funding from these three institutions can be said to be making a significant contribution to the objectives detailed in the Paris Agreement.

Specifically, we address two critical questions:

1. **Scale:** Does Swedish climate mitigation finance support activities in developing countries that have the potential to significantly mitigate climate change on a large scale?
2. **Timeliness and Paris Agreement alignment:** Are the mitigation actions funded by Swedish development aid likely to make significant contributions to meeting climate goals for 2030 and to achieving the Paris Agreement’s target of keeping global warming to no more than 1.5°C.

This is a summative report that builds on three portfolio evaluations, one for each of the three institutions.

⁴ *The Guardian* (2021), “‘Blah, blah, blah’: Greta Thunberg lambasts leaders over climate crisis”.

The three institutions – Sida, Swedfund and NDF – and their mitigation finance portfolios are presented in Chapter 2, along with a definition of catalytic climate-change mitigation finance and how it differs from other types of climate aid.

In Chapter 3, the main findings from the three portfolio evaluations are presented and discussed.

The portfolio evaluations were conducted by three teams: Annika Hilgert and Fiona Lambe from Stockholm Environment Institute (SEI) evaluated the NDF portfolio; Swedfund's portfolio was evaluated by Flintull Annica Eriksson and Per Strömberg from IVL Swedish Environmental Research Institute; while the team evaluating the Sida portfolio consisted of Luisa Weber, Max Schmidt and Igor Shishlov from Perspectives Climate Research.

The criteria for evaluating portfolios were based on five dimensions identified by the Climate Investment Funds' (CIF) Transformational Change Learning Partnership (TCLP) that must be present for there to be confidence that climate actions are transformational, i.e., do they contribute to the transformational change required to keep global warming to no more than 1.5°C. The evaluation framework and the methodology used are described in Appendix 3.

The evaluations are *ex ante* by design and are thus not intended to assess actual outcomes, simply what is *expected* to happen. The evaluators assess the intended results and discuss the potential contribution to overall targets for reduced emissions and climate-change mitigation. One significant limitation to the three portfolio evaluations has been limited access to data. This is discussed in both Appendix 3 Methodology, and in the section on transparency in Chapter 3.

The report concludes with a discussion on the implications for future mitigation finance and Swedish climate aid in general.

2 Swedish priorities and three mitigation portfolios

Swedish climate work shall be based on the Paris Agreement, a legally binding international treaty on climate change that entered into force in 2016. Among other things, the Agreement formulates a goal to limit global warming to 1.5°C, which can only be achieved by significantly reducing greenhouse gas emissions and extracting carbon dioxide from the atmosphere. Furthermore, the Paris Agreement includes provisions stating that developed countries shall provide financial resources and capacity-building to assist developing countries with climate-change mitigation and adaptation.⁵

The Swedish Climate Act (SFS 2017:720) entered into force on 1 January 2018. The act contains provisions on the government's climate work, what the aim of the work is to be and how it is to be conducted. Section 5 of the act states that the government must prepare a climate action plan for presentation to the Riksdag every fourth year describing planned and implemented national measures, as well as Sweden's commitments within the EU and internationally.⁶

In its latest Climate Action Plan, presented to the Riksdag in December 2023, the Government states that climate aid and climate investments must increase and become more effective. Climate aid should contribute to the green transition, sustainable development and global growth. It should also contribute to a greater extent to reducing emissions. The Government acknowledges that development cooperation must contribute to the fulfilment of the Paris Agreement, and that climate aid must make an effective contribution to reducing emissions in developing countries. Swedish climate aid should be catalytic by, for example, mobilising private financial resources, developing financial markets and through the use of

⁵ The Paris Agreement, Articles 9 and 11.

⁶ The Swedish Climate Act (SFS 2017: 720).

challenge funds and guarantees.⁷ The Government also emphasises the importance of transparency:

The Paris Agreement places high demands on all countries in terms of how they measure, verify and report emissions, as well as on the reporting of measures and financing. High transparency demands are key to maintaining credibility and verifying goal attainment, but also mean that extensive capacity-building is needed in many developing countries.⁸

The same ambitions of increased and more effective Swedish climate aid and greater transparency can be found in the Government's policy for Swedish aid and development cooperation. As in the Climate Action Plan, the Government states that increased mitigation outcomes should be attained through a focus on middle-income countries.⁹

The Government has issued a thematic development cooperation strategy for the period 2022–2026 that focuses specifically on the environment and climate.¹⁰ Allocating a total of SEK 8 billion for the period, the Government states that an innovative and flexible approach should be applied, including the use of innovative forms of financing and new technical solutions, as well as mobilising additional financial resources. The same ambitions were also stated in the preceding thematic strategy.

⁷ Swedish Government (2023), Written communication 2023/24:59, The Government's Climate Action Plan: All the Way to Net Zero. p. 32.

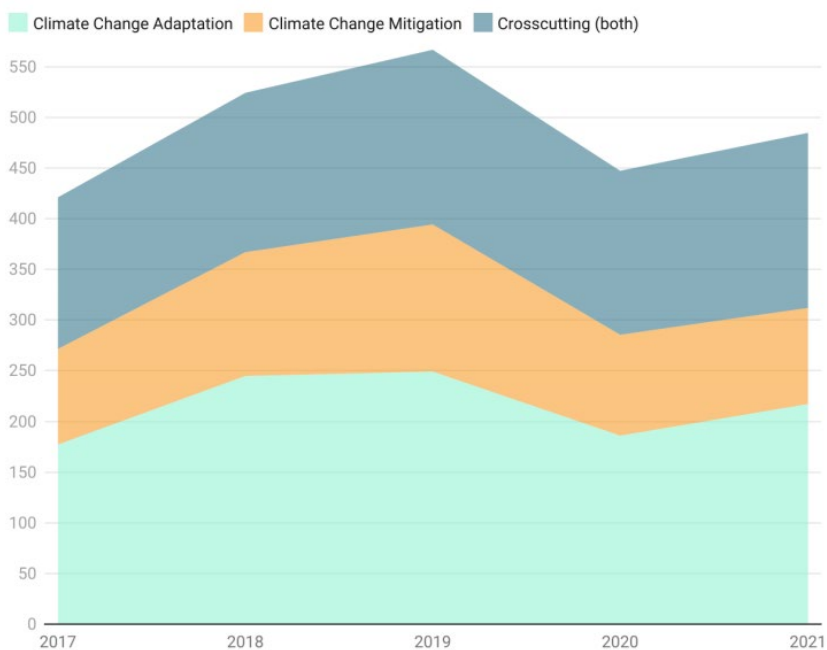
⁸ Swedish Government (2023), Written communication 2023/24:59, The Governments Climate Action Plan: All the Way to Net Zero, p. 33 (translated from Swedish by the authors).

⁹ Swedish Government (2023), Development assistance for a new era: Freedom, empowerment and sustainable growth.

¹⁰ Swedish Government (2018), Strategy for Sweden's global development cooperation in the areas of environmental sustainability, sustainable climate and oceans, and sustainable use of natural resources 2018–2022, p. 7.

Sweden has set itself ambitious goals for climate aid in general and catalytic climate aid specifically. In 2023, Swedish climate aid amounted to SEK 9.4 billion.¹¹ However, a more detailed mapping of Swedish climate aid published by EBA in 2023 reveals that only a limited part of bilateral aid is focused solely on mitigation (see Figure 1). The mapping also reveals that almost no Swedish mitigation aid was aimed at reducing emissions in middle-income countries.¹²

Figure 1: Swedish bilateral climate aid, by objective, 2017–2021, US\$ million



Source: Williams, Otto (2023), *Swedish Climate Aid: What Does the Data Tell Us?*, Working paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

¹¹ Swedish Government (2024), Sweden increases climate aid 2023, press release, 29 May 2024.

¹² Williams, Otto (2023), *Swedish Climate Aid: What Does the Data Tell Us?* Working paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

Three institutions with different roles and mandates

Three institutions are key actors in Swedish ambitions to provide catalytic mitigation finance: Sida, Swedfund and NDF. While the mandates and governance of these institutions vary, and they use different types of financial instruments, they all fund climate-change mitigation initiatives.

Swedfund is Sweden's development finance institution. Its mission is to reduce poverty through sustainable investments in developing countries. Established in 1979, Swedfund is a state-owned company the aim of which is to help create the conditions for improving the standard of living of people living in poverty and under oppression. Swedfund develops and manages an investment portfolio of equity, loans and guarantees in and to companies in countries that qualify for development aid.¹³ Swedfund's climate targets are aligned with the goals of the Paris Agreement and include investing in low-emissions pathways and climate-resilient development, as well as contributing to achieving net zero emissions.

In 2014, Swedfund decided to restrict its investments in the energy sector to renewables, preceding instructions from the Government that the company shall ensure that all investments are “climatically sustainable” (2017).¹⁴ The Government gave Swedfund more detailed instructions in 2019, stipulating that the company's portfolio is to be climate neutral by 2045.¹⁵ Swedfund has published a Guiding Note on how the company intends to implement its work on climate change.¹⁶

¹³ Swedfund (2021), Articles of Association.

¹⁴ Email from Swedfund (18 August 2024).

¹⁵ Swedish Government (2019), Owner Instructions for Swedfund International AB.

¹⁶ Swedfund (2021), Guiding Note: Climate.

Swedfund's operations are financed by reflows from the portfolio and through capital injections from the development cooperation budget. At the end of 2023, the company had a portfolio of 73 investments, primarily in sub-Saharan Africa and Asia, with a total value of over SEK 10 billion. Energy and climate are the largest sectors, representing 38 per cent of the portfolio.¹⁷

The **Swedish International Development Agency (Sida)** is the government agency responsible for Sweden's bilateral development cooperation. With a commitment to reducing global poverty and promoting sustainable development, Sida provides financial support and expertise to partner countries and organisations worldwide.

Sida is guided by geographical and thematic strategies decided by the Government. A significant proportion of those strategies have climate-change adaptation or mitigation among their objectives, and there is a specific thematic strategy on climate, environment and biodiversity for the period 2022–2026.¹⁸ *Environment and Climate* is also one of four thematic perspectives that should be integrated into all Sida projects. Another of the agency's core tasks is to act as a catalyst, using innovative financial solutions to mobilise additional financial flows that can contribute to poverty-reduction and sustainable global development.¹⁹

Sida manages about half of Sweden's climate aid, just over US\$ 450 million per year. Despite stated ambition to increase Swedish climate aid, this figure has remained fairly constant over a number of years (Figure 2). Approximately 50% of all climate aid distributed by Sida is spent on climate-change adaptation, while around US\$ 100 million is spent on mitigation. The remainder of the

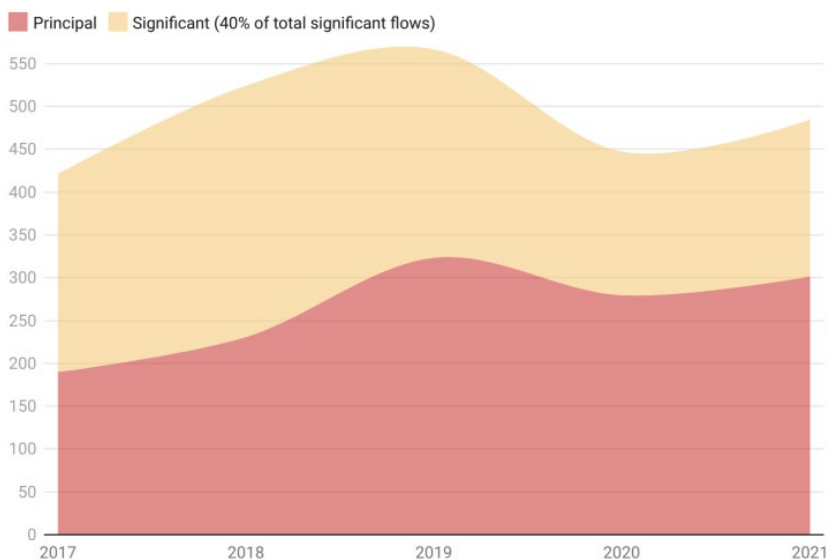
¹⁷ Swedfund (2024), Annual report 2023.

¹⁸ Swedish Government (2022), Strategy for Swedish global development cooperation on environment, climate and biodiversity 2022–2026.

¹⁹ Swedish Government (2010), Swedish Ordinance (SFS 2010:1080) with instructions for the Board of the Swedish International Development Agency (Sida).

portfolio is made up of interventions classified as “crosscutting”, i.e., they address both mitigation and adaptation.²⁰

Figure 2: Swedish bilateral climate aid, by Rio Marker type, 2017–2021, US\$ million



Source: Williams, Otto, Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

Sida’s climate portfolio is mainly focused on Africa, with Mozambique being the largest recipient country. Mozambique is also the primary partner country for mitigation aid, receiving about US\$ 10 million per year during the period 2017–2021. Technical assistance and capacity-building (primarily to state actors and civil society) and investments in climate-friendly technologies are the main modalities used in climate aid interventions funded by Sida.²¹

²⁰ Williams, Otto (2023), Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

²¹ Williams, Otto, Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

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.²² 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.²³

NDF's mandate was revised in 2009 to focus on funding climate change and development interventions in low-income countries. The institution has since established a portfolio of climate-mitigation and adaptation projects. As of 2016, NDF is also committed to contributing to achieving the targets set out in the Paris Agreement.²⁴

NDF concentrates on providing catalytic and early-stage financing for projects and mobilising private-sector financing. One key aim is to establish a 'pipeline' of viable, large-scale solutions to climate change through, for example, pilot projects and preparatory actions co-financed with public and private investors.²⁵

The current NDF strategy for the period 2020-2025 sets three targets for the portfolio: i) at least 50% of financing should go to adaptation projects, ii) 60% of financing should be allocated to projects in sub-Saharan Africa, and iii) 50% of financing should be in the form of grants.²⁶

²² Nordic Development Fund (2023), 2022 Annual Financial Report.

²³ Nordic Development Fund (2023), 2022 Annual Financial Report.

²⁴ Skjelvik, J. M., & Swanson, P. (2012). Evaluation of NDF's progress under the climate mandate; Spratt, S., Lawlor, E., Prasada Rao, K., & Berger, M. (2019). Joint Nordic Organisational Assessment of the Nordic Development Fund (NDF), EBA Report 2019:06, the Expert Group for Aid Studies (EBA); Nordic Development Fund (2023), 2022 Annual Financial Report.

²⁵ Nordic Development Fund (2019), Strategy 2025: Nordic Leadership addressing climate change.

²⁶ Nordic Development Fund (2019), Strategy 2025: Nordic Leadership addressing climate change.

In 2022, NDF was managing an active climate portfolio with a value of approximately €359 million and total assets of €726 million.²⁷

Three mitigation finance portfolios

In this section we describe the mitigation finance portfolios of Sida, Swedfund and NDF. The portfolios presented here have been compiled for the purpose of these evaluations.²⁸ As previously noted, all three institutions have also funded or invested in other projects. This report only evaluates the interventions that meet the inclusion criteria for our study (Table 1).²⁹ All of the projects are presented in detail in Appendix 1. As also noted above, these portfolios are based on publicly available data, the quality of which is discussed in Chapter 3 and Appendix 3.

²⁷ Nordic Development Fund (2023), 2022 Annual Financial Report.

²⁸ This entire section builds on the portfolio evaluation papers: For Swedfund see: Eriksson, Flintull Annica, Strömberg, Per (2024) Swedfund's climate mitigation finance: a portfolio evaluation, The Expert Group for Aid Studies (EBA), Sweden. For Sida see: Weber, Luisa; Schmidt, Max; Shishlov, Igor (2024), Sida's climate mitigation finance: a portfolio evaluation, Working Paper April 2024, The Expert Group for Aid Studies (EBA), Sweden. For NDF see: Hilgert, Annika & Fiona Lambe (2024), NDFs mitigation finance: a portfolio evaluation, The Expert Group for Aid.

²⁹ The total number of projects or size of the portfolios in financial terms may differ from current portfolios, as the data was collected in 2023. Some projects or investments were excluded by the evaluation teams due to lack of available documentation clearly demonstrating mitigation as among the planned results. See Appendix 1 for a detailed description of the portfolios.

Table 1: Mitigation finance portfolios, total number of projects and funds committed (US\$ million)

	NDF	Swedfund	Sida
No of investments/projects	23	23	21
Total funds committed	165	408	348
Types of financial instruments used	Equity, debt, grants	Equity, debt	Grants, guarantees

Source: Portfolio evaluations. Please note that, for Sida’s guarantees, the total amount committed only includes the ODA grant that subsidises the fee, not the value of the guarantee or the funds expected to be mobilised.

While we present the three portfolios side by side for comparison purposes, it is important to note that there are significant differences, particularly in the financial instruments used. Awarding a US\$ 10 million grant is not the same as providing US\$ 10 million as equity or a loan.³⁰

All three institutions use a mix of different financial instruments, with some overlap (Figure 3). The financial instruments used can be explained by the roles and mandates of the institutions. Sida primarily works through grants and Swedfund a blend of equity and debt, while NDF uses a mix dominated by grants, although it also provides loans and equity.

One finding from the portfolio mapping is that there is an overlap between all three portfolios. In a total of five projects, involving some of the largest commitments, two or three of the institutions are among the investors/co-financiers.

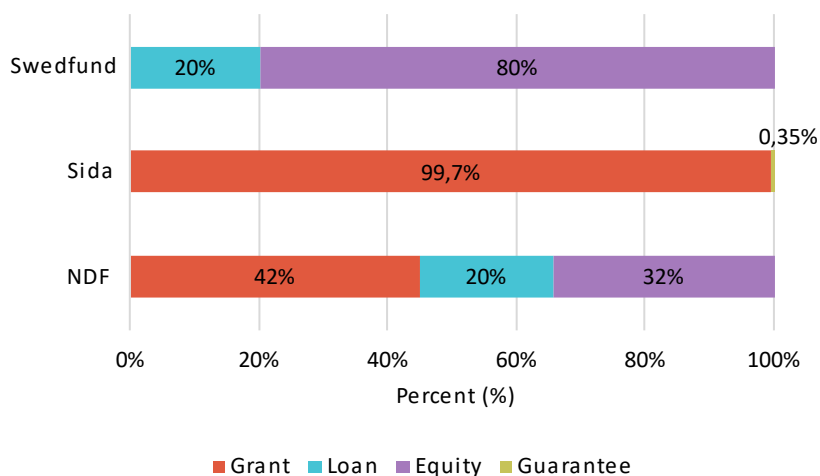
The evaluators, not the respective institutions, defined which projects should be included in the portfolio assessment. The criteria for inclusion were investments or funded projects that have

³⁰ There are methods for calculating the “grant equivalent” of concessional loans and equity. For the interested reader, an introduction can be found in Scott, Simon (2017), The grant element method of measuring the concessionality of loans and debt relief, OECD Development Centre Working Paper No. 339.

mitigation as an explicit primary objective, and that are catalytic in their intervention logic. This does not correspond exactly to how the institutions themselves define their mitigation finance portfolios.

One important question raised is whether the evaluation captures portfolios or simply selections of individual investments and/or projects. The term *portfolio* implies that there is a larger guiding principle in the selection of individual investments, where the total is more than the sum of the parts, such as investing in activities that, while not formally connected, contribute towards the same intended impact based on a common framework or theory of change. It may also be the case that portfolio selection is used as a form of risk-mitigation, although no such explicit logic has been captured while mapping these portfolios (see also Chapter 3, pages 30–31). For the purposes of this report, the term *portfolio* refers to a collection of funded interventions.

Figure 3: Share of committed investments per financing instrument



Source: Calculations based on the portfolio evaluations. Please note that the guarantee amount represents the ODA eligible sum (the subsidised fee), not the amount guaranteed or the potential amount mobilised.

An analysis of committed volumes over time indicates that the three portfolios have developed differently. NDF's commitments are spread evenly over recent years, with a gradual increase over time. The sizes of the commitments ranges from €2 million to €22 million, at an average of just under €10 million per commitment.

Sida's profile is more erratic, with significant commitments made in 2019 and 2021. This might be explained by the fact that the projects included in the evaluation only represent a small part of Sida's overall climate aid commitments. The average funding volume per project is about US\$ 17 million. However, Sida's contribution to projects varies substantially, with funding volumes ranging from US\$ 0.16 million (EARF - COVID19 off-grid relief fund) to US\$ 92 million (Beyond the Grid Fund for Africa).

Swedfund's commitments have been steadily growing over the last few years. This can be expected to continue, as the Government has allocated additional funds to Swedfund specifically for climate investments. In 2023, an earmarked capital increase of SEK 460 million was appropriated for climate investment.³¹ The same amount was also proposed in the Government's 2024 Budget Bill.³² Investments ranged in size from US\$ 1 million to US\$ 50 million, with an average investment of around US\$ 18 million.

A strong focus on sub-Saharan Africa

All three portfolios are characterised by a strong focus on sub-Saharan Africa (see Figure 4 below). Sizeable projects are underway in Mozambique, Kenya, Rwanda and Uganda. However, the geographical spread is significant, with many countries receiving funding.

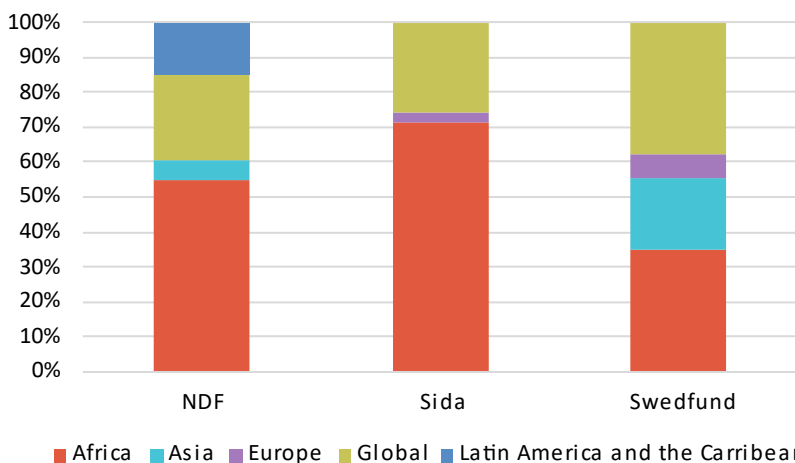
³¹ Swedfund (2024) Annual report 2023.

³² Swedish Government (2023), Government Bill 2023/24:1, Expenditure Area 7 International development cooperation.

Asia is an important region for Swedfund and, to some extent, NDF. Swedfund has allocated more than a third of its climate finance investments to the region.

The exact geographical distribution of the portfolios on a country level is difficult to establish, as a significant percentage of the projects are part of multi-country funds or programmes. There was often little or no available data on how funds are distributed within specific projects. This was often due to the fact that a number of investments were made in investment funds and this data will only be generated when the funds subsequently allocate resources to specific projects.

Figure 4: Geographical distribution, share of investments for each institution by world region



Source: Calculations based on the portfolio evaluations. The investments classified as “Global” most often focus regionally on countries in Africa and Asia.

In addition, a number of projects are classified as global, especially in Sida’s portfolio. These are often international capacity-building projects such the *Global Innovation Lab for Climate Finance* and *Green Bonds Technical Assistance Program*.

Box 1: Project example, Climate Investor One

(Funded by NDF and Swedfund, multi-country)

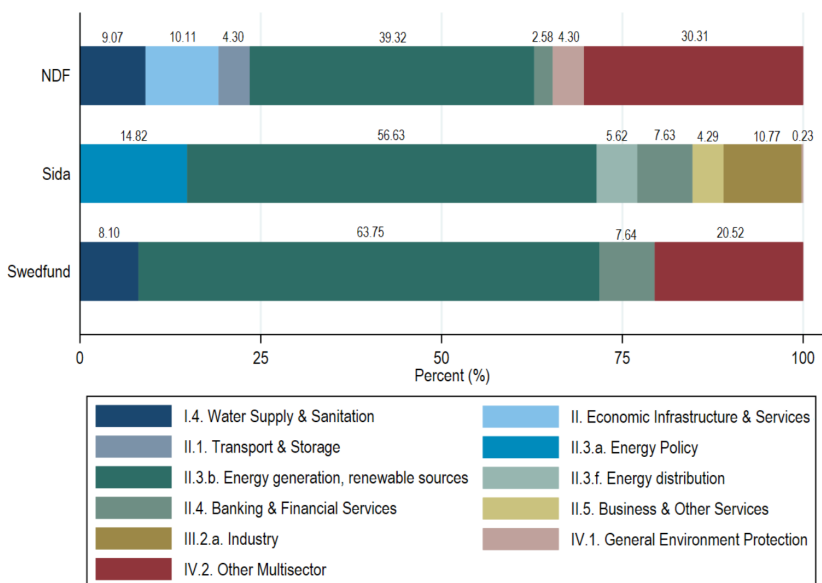
Climate Investor One (CIO) is an \$850 million blended vehicle designed to accelerate the development, construction, and implementation of renewable energy infrastructure projects in emerging markets. Comprised of three inter-linked investment funds, CIO provides fit-for-purpose financing across the project finance lifecycle. The Fund aims to support ~30 projects over its 15-year investment term and will target a variety of renewable energy technologies

Source: Convergence (2021), Climate Investor One Case Study and portfolio evaluations. Both Swedfund and NDF have also invested in Climate Investor Two.

Energy is the key sector

There are many ways to mitigate climate change using a wide range of solutions and approaches in various sectors. While there are many options to explore, the three portfolios share a common theme in that their primary focus is on the energy sector, with the key subsector being renewable energy generation. Renewable energy is the largest sector in all three portfolios, ranging from approximately 40 per cent at NDF to over 60 per cent at Swedfund, see Figure 5.

Figure 5: Share of total commitment values by sector



Source: Calculations based on the portfolio evaluations. OECD sectors.

The importance of the energy sector is emphasised by the fact that energy policy and energy distribution also receive significant funding, especially from Sida. Indeed, between them, these three components of the energy sector account for around 75 per cent of Sida’s portfolio and over 70 per cent of Swedfund’s.

The three energy sectors represent about 75 percent of Sida’s total portfolio, and more that 70 percent of Swedfund’s (for illustration, see project example below).

Box 2: Project example, Advancing Regional Energy Projects (AREP)

Project Example:

(Funded by Sida, sub-Saharan-Africa, multi-country project)

The project, implemented by the World Bank, aims to establish interconnected, cross-national grids and regional energy trading systems by working together with regional authorities (‘power pools’) and providing technical studies and training. The initiative is intended to be pivotal for decarbonizing existing power systems and enables the expansion of RE by balancing out variability in energy generation. This should foster growth in RE markets and economic activity due to improved access to reliable electricity supply.

Source: Sida portfolio evaluation.

The category “other multisector” also receives a significant share of funding, especially from NDF. These are investments and projects that cover more than one sector. In the case of NDF, these initiatives are often targeted at circular economy, such as the Africa Circular Economy Facility.

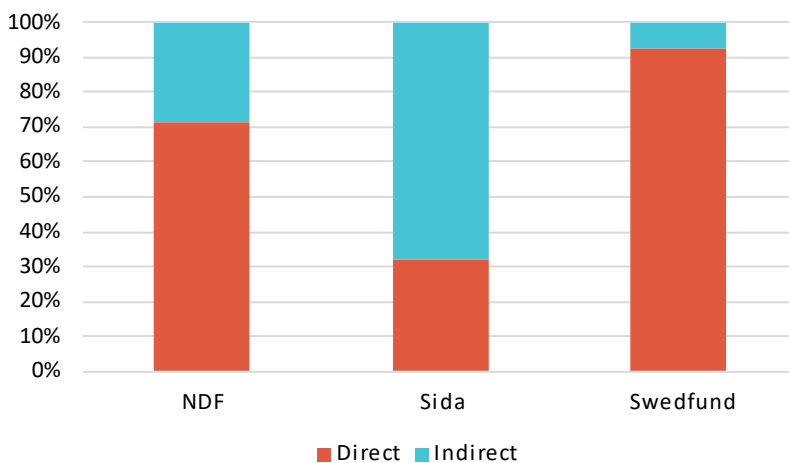
Expected results are mainly long term

The expected mitigation outcomes of interventions can be either direct or indirect. Direct mitigation includes reducing emissions and carbon removal through nature-based solutions. Indirect mitigation include mobilising resources for mitigation or capacity-building projects by, for example, offering technical assistance, training and workshops. A single project may strive for both direct and indirect mitigation outcomes.

The portfolio evaluations suggest that the three institutions take different approaches in search of different mitigation outcomes (Figure 6). The majority of interventions in Sida’s portfolio are intended to achieve indirect mitigation, which is probably a reflection of the agency’s role and mandate and the fact that its primary financial instrument is the grant. These grants are often awarded to provide resources in the short term, such as institutional capacity building to enable larger investments or develop markets.

At the other end of the spectrum, Swedfund’s portfolio is almost exclusively dedicated to achieving direct (expected) mitigation results. Once again, this makes perfect sense given its role and chosen financial instruments. Swedfund primarily invests in renewable energy generation in the expectation of directly reducing emissions.

Figure 6: Mitigation type



Source: Portfolios evaluations.

NDF operates somewhere between the two, with about a third of its expected results being indirect. This reflects a portfolio that includes grants to develop project pipelines, including through the NDC Pipeline Accelerator. Indirect results include capacity-building,

educational initiatives, institutional reinforcement, developing regulatory frameworks, raising awareness and promoting entrepreneurship.

Box 3: Project example, SunFunder Gigaton Fund

Funded by Sida, Swedfund and NDF. East Africa 60% , Middle East, Asia, Latin America)

The SunFunder Gigaton Fund is an investment fund managed by SunFunder Inc. that aims to provide lending to small and medium-sized renewable energy companies in low- and middle-income countries, with a focus on Africa. The fund aims to contribute to positive development outcomes through lending in five areas: 1) affordable access to clean energy; 2) decarbonisation; 3) improved well-being and quality of life for women; 4) job creation and positive economic development in low- and middle-income countries; and 5) climate adaptation and resilience.

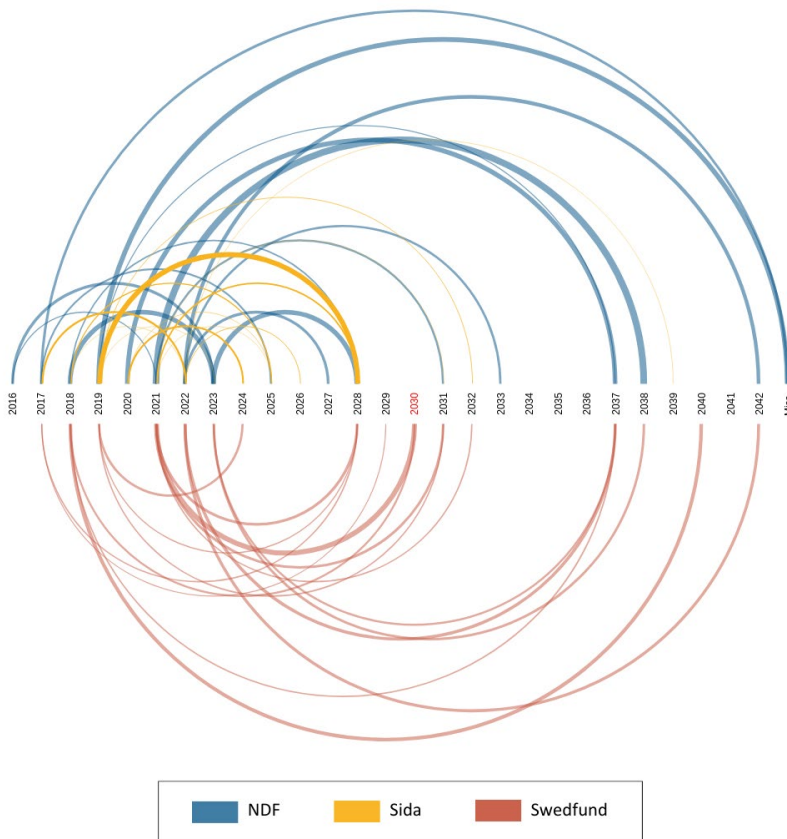
Source: Openaid, portfolio evaluations.

While the portfolios differ in their mix of direct and indirect expected outcomes, one conclusion that can be drawn from the evaluations is that there is a lack of available data regarding the expected mitigation results of a significant number of projects. While it may be clear that direct or indirect results are expected, there is usually no reliable quantitative data on what the expected results are (for example, the project is expected to reduce greenhouse gas emissions). This issue is discussed in more detail in Chapter 3.

One way of understanding expectations is the time horizon for outcomes: When are results expected? In this report, we are particularly interested in mitigation outcomes that can contribute to reducing emissions by 2030. So, what do the portfolio evaluations tell us on this critical point?

The overall conclusion is that direct mitigation outcomes, such as cutting emissions, should not be expected until the late 2030s and early 2040s (figure 7). Swedfund and NDF both have similar profiles, with a number of recently initiated projects targeting direct emissions reductions. Several projects involve constructing new energy production or infrastructure, such as solar power and grid expansions. The commitment and expected return on investment in these types of projects have a long-term horizon.

Figure 7: Project periods, mitigation finance



Source: Calculations based on portfolio evaluations. Note that the figure describes the project/investment periods, not expected mitigation results. A renewable energy investment, for example, might have an investment horizon that significantly exceeds the construction timeframe of the actual infrastructure. The project might be operational, producing solar, water or wind energy, for a major part of this period.

Compared to NDF and Swedfund, Sida's projects are shorter and their expected outcomes more immediate. This can be explained by Sida's preferred financial instrument (grants) and the fact that the agency is primarily targeting indirect mitigation, such as institution- and capacity-building, market development, influencing energy policy and mobilising financial resources. However, Sida's indirect expected outcomes have the same long-term horizon for contributing to direct mitigation outcomes as NDF and Swedfund, i.e., the late 2030s/2040s.

3 What did we learn about the mitigation finance portfolios?

In the previous chapter we described three mitigation finance portfolios. While they only cover a fraction of Swedish aid, and indeed a limited part of Swedish climate aid, the portfolio evaluations do offer a number of valuable insights of relevance to policy.³³ Although based solely on publicly available data, the portfolio evaluations raise a number of questions about the impact, trade-offs and ambitions of mitigation aid funded from official development assistance (ODA).

The first two sections in this chapter focus on the potential mitigation results of the evaluated portfolios. One immediate conclusion is that their contribution to meeting emission reduction targets for 2030 will be negligible. In the next section, we discuss whether this is actually a problem in itself, or simply a reflection of the roles and mandates of the three institutions.

In the final section of this chapter, we discuss the conclusion that transparency is lacking across all three portfolios. The main issue in this context is that insufficient transparency regarding mitigation outcomes hampers efficient and effective mitigation finance.

The portfolios will not significantly contribute to the Paris Agreement by 2030

As many have already stated, and are continuing to emphasise, climate change needs to be mitigated now. In the words of United Nations Secretary-General António Guterres: “The battle to limit

³³ While this is only a limited part of all climate-change mitigation aid, many important characteristics are shared by all Swedish mitigation aid, see Williams, Otto, Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

temperature rise to 1.5 degrees will be won or lost in the 2020s – under the watch of leaders today”.³⁴

The Independent High-Level Expert Group on Climate Finance has concluded that: “Failure to generate investment and finance of the scale and nature required is to fail on Paris”.³⁵

The conclusion from all three portfolio evaluations is that none of these specific portfolios will contribute significantly to climate-change mitigation by 2030, a state of affairs for which there are multiple reasons.

The portfolios are not fully transformative

One important finding of the portfolio evaluations is that none of the portfolios is fully “transformative”; that is, designed in such a way that the expected outcomes can contribute to mitigation results on the transformative scale needed.³⁶

The evaluations were based on five dimensions of transformative climate action identified by the Transformational Change Learning Partnership (TCLP), a multi-stakeholder and interdisciplinary community set up by the Climate Investment Funds (CIF). These five dimensions are: speed, scale, systemic change, relevance and adaptive sustainability (see Box 4). The last criterion was excluded from the evaluation, and two of the teams instead included additionality as a criterion in their assessments.³⁷

³⁴ UNCTAD (2023), Technology and Innovation Report 2023, p. iv.

³⁵ Bhattacharya A, Songwe V, Soubeyran E and Stern N (2023) A climate finance framework: decisive action to deliver on the Paris Agreement – Summary. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.

³⁶ Transformative change can be defined as “A system wide change that requires more than technological change through consideration of social and economic factors that, with technology, can bring about rapid change at scale.”, see [transformative change | IPBES secretariat](#).

³⁷ One project team decided to award a separate score for additionality rather than scoring it with the TCLP’s dimensions.

The evaluation criteria were chosen as a framework for evaluating mitigation finance that goes beyond measuring immediate emission reductions. It focuses on the potential for long-term, systemic changes that contribute to a climate-neutral, inclusive and sustainable future.

The evaluation criteria are a lens to focus on and understand the potential of mitigation efforts. It should however be noted that none of the institutions in question use these specific criteria. One should also bear in mind that all three institutions have mandates that extend beyond mitigation, hence they have other considerations when selecting projects. For a more in-depth description of the methodology used in the portfolio evaluations, including a discussion of limitations, please refer to Appendix 3. Most projects also have additional objectives besides climate-change mitigation, see Appendices 1 and 2.

Box 4: Evaluation criteria, including the TCLP’s dimensions of transformative climate finance

Scale: Investments are enabling faster action. This was assessed by capturing how investments were intending to raise, mobilise or unlock public and private finance. The degree of funding in innovation was also assessed.

Speed: Investment outcomes will manifest by 2030 and investments contribute to streamlining access to finance. The evaluation considered the timeline for intended mitigation outcomes, but also if and how investments might improve and accelerate access to finance.

Systemic Change: Investments consider different levels of actors in a coordinated, interconnected and inclusive manner, and are providing new and innovative solutions.

Relevance: Investments are aligned with national needs as identified through NDCs and global areas/sectors of high importance identified in the Paris Agreement.

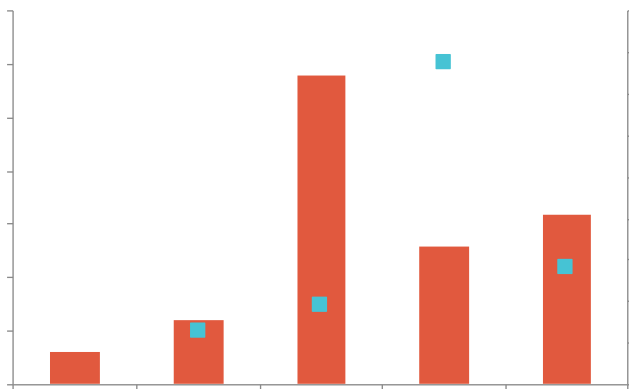
Additionality: Would these outcomes have come about without this project?

All five criteria were individually evaluated based on questions/definitions provided for indicators and relevant evidence. All five criteria were initially weighted equally in the portfolio's evaluations. Additional points were then automatically awarded to projects that scored a yes for relevance and scale.

Based on the evaluation criteria, on average, the investments across the three portfolios do not score high and the three portfolios lack transformative potential. The evaluations are summarised in Figure 8 below, which describes the assessment of all projects in all three portfolios. For a detailed presentation of the results, please refer to Appendix 2, which contains a project level summary.

As illustrated in the histogram below, the majority of evaluated investments and projects are in the middle range. The average score for all projects in the three portfolios is approximately 60 per cent. Distribution is relatively similar in all three portfolios, with no significant differences in the total assessments. The same is true of individual evaluation criteria.

Figure 8: Scoring distribution all evaluation criteria, across climate finance portfolios, number of projects and total committed ODA



Source: Portfolio evaluations. The histogram shows the distribution of total scores for all evaluation criteria as a percentage of the maximum possible score. All projects in all three portfolios are included. The vertical axis shows the number of projects and the secondary vertical axis the value of funds committed (US\$ million) indicated by a blue square.

Although only 9 projects fall within the two lowest ranges, few investments demonstrate truly transformational potential. Only 5 out of the 67 assessed investments achieved the maximum score. Of the 67 investments, 16 are in the highest range (it should be noted that some of these are the same project, with more than one investment). About half of all projects, and about half of the committed funds, are found around the 50% mark.

Each evaluation criterion defines a different dimension of transformative change. The criteria are designed to capture the fact that we need rapid and extraordinary solutions that create systemic change.

It is important to note that the scoring described here is an indicator of overall transformational potential. A project might score fairly well but if, for example, it is not relevant, it will still have no transformational potential.

At the same time, it should be noted that, when part of a portfolio, not all projects would have to meet all criteria, as discussed by the team evaluating NDF:

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.³⁸

So, one might argue that an evaluation should look for transformational potential not in individual investments or projects, but rather in the portfolio as a whole. Projects may be chosen to complement and support one another, targeting different outcomes that together contribute to transformational change.

This portfolio logic was not captured in the evaluation. For NDF and Swedfund, the evaluation covers all, or most, of their mitigation finance projects. However, no data was identified illustrating a portfolio logic for how mitigation results could be attained through complementary investments; that, for example, one project is not addressing one aspect of transformational change because another project in the portfolio is already addressing it. One might expect this to be described in a project's theory of change or intervention logic.

In the case of Sida, the projects in the portfolio represent only a fraction of all mitigation aid. In fact-checking their portfolio evaluation, Sida noted that a number of evaluated projects were part

³⁸ Hilgert, Annika & Fiona Lambe (2024), NDFs mitigation finance: a portfolio evaluation, EBA, p 51.

of a larger portfolio, with a significant number of complementing projects of various types.³⁹ These other projects were not included in this evaluation because they did not meet the inclusion criterion of being catalytic mitigation finance projects. An evaluation of such an attempt to create a coherent portfolio with complementary projects might have generated a different assessment of overall transformational potential.

In conclusion, the portfolio evaluations indicate that the overall transformational potential of the investments found in the three portfolios is, at best, average. It could be argued that, as the evaluation teams only had access to publicly available data, there might well be other data on the funded projects that would have altered their assessment (the problem of transparency is discussed below). And, perhaps most importantly, this is an analysis that focuses exclusively on expected mitigation outcomes. Most, if not all, projects also have other expected outcomes (see Appendix 1 and Appendix 2).

Nevertheless, the conclusion described above is also supported by additional factors. The potential for climate-change mitigation depends on the geographical area and the planned mitigation objectives, as well as the type of intervention being funded.

Geography matters (at least in the short-term)

The main focus of all three portfolios is Africa, more specifically projects in countries in sub-Saharan Africa. While these countries are important from a development perspective, they are responsible for relatively small amounts of global greenhouse gas emissions. Indeed, low-income countries account for only around 4 per cent of total greenhouse gas emissions.⁴⁰

³⁹ Sida's Power Africa Portfolio, email from Sida, 24 March 2024.

⁴⁰ Wolfgang Fengler, Indermit Gill, and Homi Kharas (2023), Making emissions count in country classifications, Brookings Institution.

A recent income-emissions classification from the Brookings Institution shows that there are no nations that are both high-emission countries and low-income countries. Most new greenhouse gas emissions today emanate from middle-income countries (Figure 9). There are still high-emission/high-income countries but many, including Sweden, have successfully reduced emissions over time.⁴¹ A fossil fuel-based development path is not inevitable.

Figure 9: Classifying countries by emissions and income

	Low income 704 million people in 26 countries	Middle income 6 billion people in 100 countries	High income 1.2 billion people in 56 countries	TOTAL
Low emissions 3.5 billion people in 81 countries	1.0 GT 585 million people in 23 countries	7.9 GT 2.9 billion people in 54 countries	0.2 GT 40 million people in 4 countries	9.1 GT
Medium emissions 1.8 billion people in 50 countries	1.0 GT 119 million people in 3 countries	7.8 GT 1.1 billion people in 26 countries	3.0 GT 413 million people in 21 countries	11.8 GT
High emissions 2.8 billion people in 51 countries	0 GT 0 people in 0 countries	23.3 GT 2 billion people in 20 countries	13.7 GT 790 million people in 31 countries	37 GT
Total emissions	2.0 GT	39.0 GT	16.9 GT	57.9 GT

Source: Wolfgang Fengler, Indermit Gill, and Homi Kharas (2023), Making emissions count in country classifications, Brookings Institution.

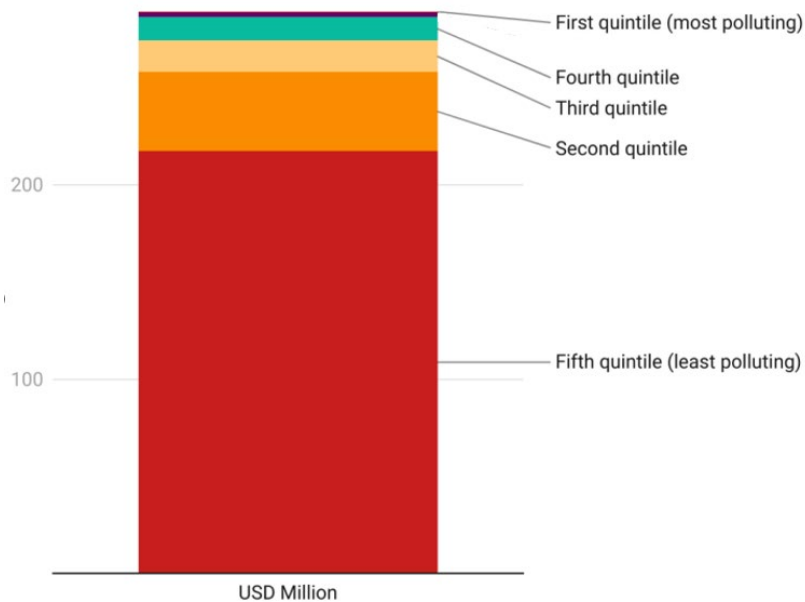
Geographically, the evaluated portfolios are concentrated on some of the least developed countries, mainly in Africa, which limits their overall short-term mitigation potential. The mitigation projects in the main portfolio countries will not contribute significant immediate emissions reductions as emissions are already relatively low (see pages 17–18 for a reminder of the geographic profiles of the three portfolios). Even with highly transformative projects, the short-term mitigation impact would be limited due to the countries’ low emissions.

In the next section of this chapter, expected longer-term mitigation results are discussed. It is crucial that low-income, low-emission countries avoid becoming high emitters as they develop, something that offers a different perspective on the evaluated portfolios.

⁴¹ Swedish National Environmental Protection Agency (2024), official statistics on Sweden’s emissions and uptake of greenhouse gases.

The focus on low-emission, low-income countries is not unique to these three portfolios; it is a general characteristic of all Swedish bilateral mitigation aid, which has traditionally focused on countries with lower per capita CO₂ emissions (see Figure 10).⁴²

Figure 10: Mitigation aid allocation by CO₂ emissions per capita, by quintile, 2017–2021



Source: Williams, Otto (2023), Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

The Government has stated that more effective action will be achieved if Swedish climate aid is focused on mitigation efforts in middle-income countries.⁴³ If this reprioritisation impacts how aid funds are allocated in government strategies, it will represent a significant change in Swedish mitigation aid.

⁴² Williams, Otto (2023), Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

⁴³ Swedish Government (2023) Development Assistance for a New Era Freedom, empowerment and sustainable growth.

The geographical profile of the portfolios is thus a limiting factor for short-term mitigation results. However, this has not been the primary objective of these portfolios. Most of the projects in the portfolios are intended to deliver direct mitigation results by reducing or avoiding emissions, results that are not expected until the end of the 2030s or, in some cases, even later. For example, it takes time to plan and construct renewable energy infrastructure, and developing a market for renewable energy in a developing country will take even longer. In general, the projects are in line with the IPCC's conclusions regarding how to scale up mitigation in developing regions.⁴⁴ The portfolio evaluations suggest that the projects are not fully transformative however, as noted above.

The evaluated portfolios are not the only ones. The Independent High-Level Expert Group on Climate Finance concludes in their review of climate finance that that the “current use of de-risking instruments to mobilise private investment is insufficient” and that a “more holistic, comprehensive strategy is needed to deliver bigger, better and faster climate finance”.⁴⁵

That said, it is also clear that there are options available in these specific countries that could deliver mitigation results on a large scale and fairly quickly if one wanted to add this to expected results. While it is not the focus of this report to explore all of the alternatives, one

⁴⁴ IPCC, 2022: Summary for Policymakers [P.R. Shukla, J. Skea, A. Reisinger, R. Slade, R. Fradera, M. Pathak, A. Al Khourdajie, M. Belkacemi, R. van Diemen, A. Hasija, G. Lisboa, S. Luz, J. Malley, D. McCollum, S. Some, P. Vyas, (eds.)]. In: *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA.

⁴⁵ Bhattacharya A, Songwe V, Soubeyran E and Stern N (2023) *A climate finance framework: decisive action to deliver on the Paris Agreement – Summary*. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.

option is briefly described below. The objective is to illustrate that there are options that are: in a traditional Swedish partner country, have mitigation potential, and the potential for catalytic mitigation finance.

One mitigation option that might be relevant in these particular countries is carbon removal through nature-based solutions. The potential for these solutions should not be understated, as the United Nations Environment Programme (UNEP) concludes in a recent report:

A cautious interpretation of the existing evidence, taking account of associated uncertainties and the time needed to deploy safeguards, indicates that by 2030, nature-based solutions implemented across all ecosystems can deliver emission reductions and removals of at least 5 GtCO₂e per year, of a maximum estimate of 11.7 GtCO₂e per year. By 2050, this rises to at least 10 GtCO₂e per year, of a maximum estimate of 18 GtCO₂e per year. This is a significant proportion of the total mitigation needed.⁴⁶

So, there is unexplored potential and nature-based solutions are often found as a potential mitigation solution in nationally determined contributions (NDCs), which in the case of developing countries often highlight the need for funding for nature-based solutions.⁴⁷

The evaluations reveal that nature-based solutions not obviously explored as a solution in these three portfolios. While the team evaluating Sida did note that Sida is funding projects in agriculture,

⁴⁶ United Nations Environment Programme and International Union for Conservation of Nature (2021). Nature-based solutions for climate change mitigation. Nairobi and Gland, p. 1.

⁴⁷ United Nations Environment Programme and International Union for Conservation of Nature (2021). Nature-based solutions for climate change mitigation. Nairobi and Gland.

forestry and other land-use sectors that might be relevant,⁴⁸ climate-change mitigation was not listed as one of the main objectives in any of the project documentation, and the projects were therefore not included in the initial portfolio data set. These projects may however still enhance carbon sinks.⁴⁹

It is also worth noting that the clean cooking projects supported by Sida might also contribute in this regard. Adopting more efficient cookstoves is one solution for decreasing deforestation mentioned by the UNEP in its report on nature-based solutions for climate-change mitigation.⁵⁰

Climate-change mitigation finance or development aid?

So, is it a problem that, being focused on sustainable development in some of the least developed countries, the three portfolios evaluated here will not deliver significant mitigation results by 2030? On the one hand, yes: climate change is an immediate danger and enormous resources need to be mobilised to support change at a societal level that limits global greenhouse gas emissions.⁵¹ Emissions need to be halved by 2030.

⁴⁸ NDF also co-finances a number of projects involving nature-based solutions (email from NDF 30 July 2024). The projects were not included in the portfolio evaluation as they were not coded as principally focused on mitigation, but rather adaptation.

⁴⁹ Weber, Luisa; Schmidt, Max; Shishlov, Igor (2024), Sida's climate mitigation finance: A portfolio evaluation, Working Paper April 2024, The Expert Group for Aid Studies (EBA), Sweden

⁵⁰ United Nations Environment Programme and International Union for Conservation of Nature (2021). Nature-based solutions for climate change mitigation. Nairobi and Gland.

⁵¹ Bhattacharya A, Songwe V, Soubeyran E and Stern N (2023) A climate finance framework: decisive action to deliver on the Paris Agreement – Summary.

But, at the same time, if developing countries that are currently classed as low-income and low-emissions were to follow the same fossil-based development pathway as today's medium- and high-income countries, emissions would skyrocket. Even with a more sustainable development strategy, the International Energy Agency (IEA) estimates that emissions in developing countries will increase by almost 20 per cent by the mid-2040s, before declining marginally by 2050.⁵²

This being the case, it makes sense to support sustainable economic development, or a green development strategy. If they deliver the expected results, these portfolios should support low-carbon development pathways. Primarily focused on clean energy and market development as a means to contribute to green development, they seek to lift people out of poverty sustainably and, as described in Chapter 2, this is precisely the core remit of all three institutions. This is what they should be delivering: both climate-change mitigation finance and development aid.

Climate finance should be new and additional

Alongside other developed countries, Sweden is committed to providing US\$ 100 billion in new and additional funding for climate action in developing countries annually.⁵³ Climate finance should not come at the expense of development aid.

Being clear about what is climate finance and what is development aid is crucial. It is a question of not only ensuring the necessary resources are actually mobilised, but also that all funds are spent as effectively as possible.

London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.

⁵² International Energy Agency (2021), *Net Zero by 2050 A Roadmap for the Global Energy Sector*, p. 36-37. Worth noting is that, even with this scenario with significant sustainable development, the IEA estimates that by 2050, 750 million people still have no access to electricity, the vast majority in sub-Saharan Africa. About 1.5 billion people will rely on bioenergy for cooking.

⁵³ See for example UNFCCC (2010), the Cancun Agreements.

If the overarching priority of funding is not articulated, there is clearly a risk that trade-offs will be made between potentially conflicting priorities. This is highlighted by the team that evaluated Sida's portfolio, who contend that Sida finds itself on the horns of a dilemma, stuck between the need to prioritise development goals and to maximise emission reductions. They conclude that achieving both goals simultaneously is challenging,⁵⁴ a conclusion shared by the Swedish Government's special climate investigator, who in his recent report on Swedish climate policy argues:

It is genuinely difficult and in practice impossible to credibly calculate how great the additional emissions reductions provided by development aid actually are. The motivation behind measures to reduce emissions in developing countries should therefore not be to offset such projected emissions against one's own emissions targets, but rather a desire to finance a green development strategy in the poorest countries. They should therefore be evaluated like any other development aid and not by calculating carbon footprint.⁵⁵

The evaluated portfolios have all been reported as climate-change mitigation finance, having mitigation as (one of) their primary objectives, meaning that these investments all count towards Swedish commitment to contribute to climate finance.⁵⁶

⁵⁴ Weber, Luisa; Schmidt, Max; Shishlov, Igor (2024), Sida's climate mitigation finance: A portfolio evaluation, Working Paper April 2024, The Expert Group for Aid Studies (EBA), Sweden, p. 8.

⁵⁵ Hassler John (2023)., Sveriges klimatstrategi: 46 förslag för klimatomställningen i ljuset av Fit for 55. 2023, (KN2023/03828).

⁵⁶ All are reported using OECD-DAC's Rio marker system, which indicate whether development finance target's themes of the Rio Conventions. All have been coded as having mitigation as the "principal objective".

According to the formal definition of mitigation aid, these projects would not be financed without the envisioned mitigation results.⁵⁷ They should be, intrinsically, mitigation projects. But would these investments really not exist without the (long-term) mitigation component? While the assessed relevance to NDCs is in general high, perhaps the alignment between development and climate outcomes could be better articulated. One option could be to explore national Long-Term Low Emissions Development Strategies (LT-LEDS), which like the evaluated portfolios have outcome horizons in excess of 10 years.

One initial step towards establishing whether the projects are actually targeting climate-change mitigation would be ensuring that we have all relevant information about the projects: their setup, expected results and how they are intended to contribute to overall portfolio results. In other words, a transparent overview of what is actually being invested in. This will be discussed in more detail in the next section of this chapter. It is however clear that, on a project level, the distinction between development aid and climate finance often dissolves, as sustainable development and long-term climate-change mitigation are closely interlinked.

Not transparent enough

The three portfolio evaluations have largely been carried out using freely available data. The primary reason for this was not to assess transparency, but to limit the workload for the institutions in question.⁵⁸ Data was initially collected from the institutions, each of

⁵⁷ Williams, Otto (2023), Swedish Climate Aid: What Does the Data Tell Us?, Working Paper, June 2023, The Expert Group for Aid Studies (EBA), Sweden.

⁵⁸ It should however be noted that 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), Transformational Change Learning Brief).

which have some kind of project database or similar. A request was then sent to each institution, to ensure that no additional publications or documents were freely available (see Appendix 3 Methodology for further information).

The overall conclusion in all three portfolio evaluations was that the low level of detail in freely available data on projects and investment rationales limited the results of the overall study. More data would have enabled a more comprehensive analysis of the portfolios based on the evaluation criteria. Such an analysis could have provided the basis for more developed conclusions concerning the transformational potential of project and, especially, portfolios.

The team evaluating NDF noted that the data published by the institution was not sufficient for a thorough analysis of all investments, with basic data such as project proposals not always being available:

Overall, the level of transparency for the portfolio was low with limited information available online. Particularly 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.⁵⁹

Since the completion of the portfolio evaluation, NDF's Board of Directors has adopted a new Public Information Policy.⁶⁰

⁵⁹ Hilgert, Annika & Fiona Lambe (2024), NDFs mitigation finance: a portfolio evaluation, The Expert Group for Aid. In response to a request for additional information, from EBAs secretariat, NDF noted that no additional information could be shared due to legal reasons.

⁶⁰ Nordic Development Fund (2024) Public Information Policy.

The team evaluating Swedfund concluded that the available information was insufficient and rated transparency as low. This finding confirmed the results of the DFI Transparency Index 2023, which ranked Swedfund 18th out of 21 non-sovereign development finance institutions (DFIs).⁶¹ One category of information in which Swedfund was ranked especially low in the index was “Impact Management”. This is in line with the findings of the evaluation team from IVL Swedish Environmental Research Institute, who concluded that Swedfund should disclose project-level impact indicators and results, especially unambiguous and consistent expected mitigation outcomes for each project, which would be valuable if shared transparently.

In terms of transparency, Sida emerges from the evaluation somewhat better than Swedfund and NDF. While the teams evaluating NDF and Swedfund were limited by a general lack of available data on the respective portfolio investments, Sida provided substantially more documentation. However, the team evaluating Sida’s portfolio had far from all the data needed for their analysis. In Sida’s case, the available project documentation did not contain enough information to assess the portfolio based in the evaluation criteria, nor was the information detailed enough concerning what the aims of the funded projects where. It proved particularly difficult to assess the expected mitigation outcomes, intervention types and co-benefits. More than half of interventions had insufficient project documentation for a proper analysis. The team also noted that, for some interventions, the vague design posed real risks for mitigation outcomes:

However, an open-ended and vague design carries multiple risks, in particular that the projects do not fulfil their climate-change mitigation purpose. Emission curbing effects are not guaranteed if key targets are not clearly outlined at the outset and if

⁶¹ Publish What You Fund (2023), DFI Transparency Index 2023.

funding is not earmarked for direct climate-change mitigation when granting finance to a broad-focused fund.⁶²

The conclusion in this report is in line with other recent transparency assessments of Swedish aid. In the most recent ATI Transparency Index, which rates how transparently national development agencies report to the International Aid Transparency Initiative (IATI)⁶³, Sida's rank is middling.

While these rankings certainly do not capture the full picture of transparency, they can provide an important indication. As in the public sector in general, transparency in aid meets many needs, from demanding accountability and shaping public opinion to learning and coordination, to name but a few.⁶⁴

In climate finance, transparency serves a number of specific purposes. Firstly, going back to the discussion in the previous section of this report, we need to be sure that what we are dealing with actually is climate-change mitigation finance, and that it delivers its expected outcomes. A number of studies have highlighted that this is not always the case; in fact, the reality is often the opposite. As global affairs think tank ODI observes, aid reported as “climate finance” is often other aid that has been repurposed, realigned or rebadged:

...projects are simply being rebadged as ‘climate finance’ with little substantive change in the nature of the investment, then the development impacts of individual projects would not change.

⁶² Weber, Luisa; Schmidt, Max; Shishlov, Igor (2024), Sida's climate mitigation finance: a portfolio evaluation, Working Paper April 2024, The Expert Group for Aid Studies (EBA), Sweden.

⁶³ Publish What You Fund (2022), ATI Transparency Index 2022.

⁶⁴ Hedlin, Pontus and Cristoffer Lokatt (2024), Transparens i det svenska biståndet, EBA Report 2024:4, The Expert Group for Aid Studies.

However, there are clearly issues in relation to the integrity of the climate finance target and an erosion of trust in future climate negotiations.⁶⁵

It is not clear from the available data if the interventions in our three portfolios are really *principally* climate finance, or if they are development projects that happen to have mitigation potential.

Furthermore, we need transparency in climate finance in order to ensure that funds are used effectively to help achieve mitigation outcomes. One of the current barriers to transformational climate finance is the lack of information transparency, hence its inclusion in the CIF's principles. As the CIF observes, a lack of transparency is likely to limit the flow of investments into projects designed to achieve climate goals.⁶⁶

There are two dimensions to this. First, the effectiveness and efficiency in terms of mitigation proper: Are we getting the best potential mitigation value for money, whether that be direct or indirect mitigation? Reviews of other climate-change mitigation funders show that they, like our three institutions, fail to provide transparent project-level data on expected mitigation outcomes.

At present, only two funders report systematically on expected and actual project-level emissions impacts, and there is almost no gold-standard evaluation evidence. To enable policymakers to learn as quickly as possible about the most- and least-effective approaches, all funders should routinely publish their anticipated and real-world mitigation and costs at project level.⁶⁷

⁶⁵ Miller, M., Roger, L., Cao, Y., et al. (2023) Where has the money come from to finance rising climate ambition? ODI Emerging analysis. London: ODI.

⁶⁶ Larson, Tim; Chemor, Nacibe; Roberts, Janelle; Ward, Mike; Moin, Sarah. (2023). Principles for transformational climate finance to advance just and equitable solutions, Climate Investment Funds, Washington, D.C.

⁶⁷ Juden, Matt and Ian Mitchell (2020), What Do We Know about the Cost-Effectiveness of Aid Spent on Climate Mitigation?, CGD Blog.

And there are real differences between projects, indicating the importance of making informed choices. In a review of project-level data from CIF's Clean Technologies Fund, the anticipated costs for different investments differ by orders of magnitude both within and between sectors.⁶⁸ There is a real need for granular data on the investments/projects, to ensure that limited resources go to the most effective projects. Investments should not be made in subpar activities.

However, this is not 'simply' a question of mitigation results. The climate finance funding gap cannot be filled with public resources alone. Other resources, many times greater than current ODA levels, need to flow towards climate-change mitigation.⁶⁹ Most evaluated investments have expected outcomes that should help to mobilise other resources, this being a criterion for inclusion in these catalytic mitigation finance portfolios. They aim to contribute to building financial markets, catalysing private finance or otherwise facilitating the mobilisation of other resources. However, significant private finance demands transparency, as noted by the NGO Convergence in its recent report *State of Blended Finance 2024*:

To ensure that risk is being priced appropriately and that it better informs project modelling, more financial performance data is needed on returns, default, and recovery rates. Only a handful of blended finance transactions publicly disclose this information, making comprehensive and meaningful analysis difficult.⁷⁰

⁶⁸ Juden, Matt and Ian Mitchell (2020), What Do We Know about the Cost-Effectiveness of Aid Spent on Climate Mitigation?, CGD Blog.

⁶⁹ The gap is in the trillions, but despite this the levels of blended climate finance is actually declining over time. Convergence (2023), *State of Blended Finance 2023*, Climate Finance Edition, p. 9.

⁷⁰ Convergence (2024), *State of Blended Finance 2024*, p. 40.

Building strong financial markets depends on investor confidence and transparency about the market fundamentals, including the financials of deals conducted. And this is even more true in the space of blended or concessional finance, where part of the funding is provided on non-commercial terms.

Transparency is also essential to ensure that investments that are made are additional: that the concessional funds are filling a role that cannot be filled on commercial terms. There are, however, many indications that DFIs and other development actors compete:

...with each other to finance projects – especially, the low-hanging fruit that the private sector, with a little help, could finance on commercial terms.⁷¹

One clear indicator is also that a significant proportion of funds reported as mobilised actually comes from other development actors:

In other words, at present concessional financing is most often being blended with commercial capital from MDBs/DFIs, rather than supporting third party private sector mobilization.⁷²

This is not building markets; rather, different development actors are flocking together in the same projects instead of accepting risks that others refuse to take on.

This is illustrated by the fact that there are at least five projects evaluated in this report for which more than one of our institutions contributed some form of funding. All three institutions have invested in the SunFunder Gigaton Fund but, due to a lack of transparent reporting, the additional contribution expected from

⁷¹ Carter, Paddy (2018), The Pitfalls of Leverage Targets, CGD Blog.

⁷² Apampa, Andrew (2023) How much does a dollar of concessional capital mobilize?, Convergence Blog.

each institution cannot be analysed. It also remains unclear whether the funds reported as mobilised are other ODA funds, or if they represent genuinely new resources mobilised from other sources.⁷³

⁷³ A benchmark of blended finance leverage ratios conducted by Convergence in 2023 concluded that less than half of funds mobilised by concessional finance comes from private sources. The majority of mobilised funds comes from other development finance institutions and multilateral development funds. See: [Blended finance leverage ratio - Blog - Convergence News | Convergence](#)

4 Conclusions: Implications for future mitigation efforts

The purpose of this report is to provide a better understanding of three climate-change mitigation finance portfolios. Can they be said to be making a significant contribution to achieving the objectives of the Paris Agreement? More specifically, given the urgency of the climate crisis and the need for immediate action, the scope of our task was to evaluate expected mitigation outcomes by 2030. The Swedish Government has also indicated that short-term mitigation results should be a priority of Swedish development cooperation.

A clear focus on long-term low-emissions development

The overall conclusion about expected mitigation outcomes is that these will not materialise by 2030, nor are they expected to. The three portfolios of Sida, Swedfund and NDF are all characterised by their focus on long-term sustainable development in low-income, low-emission countries. While they will not significantly contribute to reducing emissions or other mitigation outcomes by 2030, the results could however be more relevant by 2040 and 2050. Ensuring that developing countries take a low-emissions, long-term development pathway is critical to long-term climate goals.

Creating sustainable economic development through the provision of financial and institutional resources can support both climate adaptation and the resilience of developing countries to climate related loss and damage. This is essential work in the countries covered by the portfolios evaluated here, which belong to a group of countries that are not only among the least developed but also among the most exposed to climate change.

Transformative potential must be improved

The chosen modalities in the three portfolios are, in general, in line with IPCC recommendations on how to mobilise mitigation resources in developing countries. An evaluation of the portfolios based on the TCLP's dimensions of transformative climate finance does however suggest that there is room for all of three to increase their transformative potential.

If Swedish climate-change mitigation finance is to contribute to systemic change on the necessary scale, it is vital that all funds are spent effectively and efficiently. The CIF principles and the TCLP dimensions of relevance, scale, speed and systemic change, along with our own criterion of additionality, is one approach, but not the only one. All institutions need to clearly articulate how their funds are intended to contribute to the necessary systemic change, at both project and portfolio level. One option is to develop and publish a portfolio-level theory of change that articulates how results are expected to contribute to the necessary change.

The report reveals that the evaluated portfolios overlap. Without a clear articulation of the additional contribution of each institution, there is clearly a risk of low value added. Strengthened coordination between these three institutions, as well as with other actors, could contribute to productive joint actions. With their differing expertise and financial toolkits, there should be a significant potential for beneficial cooperation.

As the report shows, there are opportunities to be explored that can bring additionality to Swedish climate-change mitigation finance. One such opportunity is nature-based solutions, a broad range of actions that can contribute to significant mitigation outcome in relevant partner countries. Another opportunity is to align portfolios with national Long-Term Low Emissions Development Strategies (LT-LEDSs) where they exist. These strategies share the long-term horizon of the evaluated portfolios, although many countries will need technical assistance to develop their own LT-LEDS.

The portfolios are not transparent enough

The report highlights the importance of transparency. Granular data on a project level is needed to support learning about what works, and to demonstrate that projects are effective and the funds additional. Transparency on financials and expected and achieved mitigation results is also crucial to support market development.

There is room for all three institutions to significantly improve their transparency. Swedfund and NDF do not publish enough data about their investments. Sida provides significantly more documentation but needs to include more data describing expected mitigation outcomes, intervention types and co-benefits.

Aside from being important for learning and coordination, lack of transparency also presents a potential credibility problem for climate finance at large. Climate-change mitigation is a global challenge and the results are equally important for Swedish taxpayers and people living in partner countries. Transparency is needed to build trust in mitigation efforts and policies alike.

Policy implications for Swedish climate-change mitigation finance

Pursuant to the Paris Agreement⁷⁴, a new financing commitment for climate finance is due to be agreed at COP29 in November 2024. The New Collective Quantified Goal (NCQG) on Climate Finance is intended to raise the floor beyond the current annual target of US\$ 100 billion, taking into account the needs and priorities of developing countries. As the funding gap is massive, and growing, greater ambition is required in terms of both the quantity and quality

⁷⁴ Paris Agreement, Decision 1/CP21 Paragraph 53.

of funding. The NCQG is also an opportunity to improve the levels of both accountability and transparency in climate finance.⁷⁵

The Swedish Government has announced a shift in focus for Swedish climate aid to mitigation efforts in middle-income countries. As illustrated in this report, this might provide opportunities for more significant short-term mitigation results, as these countries are currently high-emitters. However, this report underlines the importance of continuing to fund interventions in low-income countries. While at present these are low-emission countries, if they embark on anything other than a low-carbon development pathway, the resulting emissions may undo mitigation results elsewhere. The Work Programme on Just Transition Pathways was adopted at COP28.⁷⁶ Climate finance plays an important role in supporting a just transition, greening the economy in a fair and inclusive manner and creating decent work opportunities. Mobilising climate finance on just transition pathways will be critical to supporting the Paris Agreement.

At present, middle-income countries receive a significant proportion of mitigation finance. Mitigation finance needs to be increased, but this is still a crowded space. Sweden needs to ensure that new funds directed to middle-income countries are additional and effective. This can only be done by being transparent, down to portfolio and project level. Swedish climate finance must be effective and targeted at transformative solutions.

Finally, climate financing of all types must increase. Transparency is needed to ensure that, in line with the international climate commitments, funding is new and additional. The Swedish Government has decided to set the ODA budget at SEK 56 billion until at least 2025. The Government should transparently allocate

⁷⁵ For an introduction to the NCQG process, see : Alayza, N. (2023).

“Untangling the finance goal: An introduction to the new collective quantified goal.” Working Paper. Washington, DC: World Resources Institute.

⁷⁶ UNFCCC. Just Transition work programme (UAE Just Transition work programme | UNFCCC).

new climate finance to developing countries. Climate finance should, in line with Swedish commitments, not come at the expense of development aid. At the same time, it is clear from this report that a significant proportion of ODA can finance both development and climate-change mitigation and adaptation by focusing on just and long-term low-emissions development strategies.

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Appendix 1: Climate-change mitigation portfolios

Table A1: Projects/investments included in the portfolio evaluations

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	BUILD Fund (UNCDF/Bamboo capital) [NDF C136]	8 454 940	equity	Filling the 'missing middle' financing gap for SMEs, de-risking	2021	2031	unspecified	Food security and nutrition, green economy, financial inclusion
NDF	EcoMicro 2.0 Ref. NDF C78	4 302 639	grant	De-risking, innovation, catalytic	2016	2021	Bolivia, Nicaragua, Honduras, regional	Banking and financial services (Green microfinance)
NDF	Emerging Market Climate Action Fund (EMCAF)	12 682 410	loan	Catalytic	2021	2038	regional	Energy, transport infrastructure

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	Africa Circular Economy Facility	2 014 268	grant	Capacity building (institutional and business) to drive circular economy innovations and practices; early stage financing for SMEs	2022	2027	Rwanda, Nigeria, South Africa, Ghana, Côte d'Ivoire	Circular economy (multisectoral)
NDF	Africa Go Green Fund (AGGF) [NDF C135]	10 000 000	equity	Catalytic	2021	2036	regional	Renewable energy, energy efficiency (Green housing, green transport and industrial energy efficiency)

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	Facility for Energy Inclusion Off-Grid Energy Access Fund (FEI OGEF)	5 377 176	equity	To provide financing to segments of the sector typically underserved (thus de-risking and catalysing future investment)	2018	2028	regional	Renewable energy (off and on-grid)
NDF	Facility for Energy Inclusion Off-Grid Energy Access Fund (FEI OGEF)	448 098	grant	To provide financing to segments of the sector typically underserved (thus de-risking and catalysing future investment)	2018	2028	regional	Renewable energy (off and on-grid)

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	NDC Pipeline Accelerator Ref. NDC C98	10 494 242	grant	Project preparation, mainstreaming climate change, de-risking	2017	missing	regional	Infrastructure; land-use; agriculture; circular economy
NDF	Urban & Municipal Development Fund Ref. NDF C100	4 002 097	grant	Project preparation, de-risking, catalytic, early stage	2018	2021	regional	Infrastructure
NDF	Energy and Environment Partnership Trust Fund	19 716 311	loan	Catalytic, early-stage financing for innovation	2019	missing	regional	Renewable energy
NDF	SunFunder Gigaton Fund	14 712 735	grant	Early stage, innovation	2022	2037	unspecified, regional	Clean energy, e-mobility, energy efficiency

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	Sustainable Energy Fund for Africa (SEFA)	9 316 797	grant	Catalytic, early stage financing, project preparation	2020	2029	regional	Renewable energy, energy access (off-grid connectivity)
NDF	ADB Ventures	8 385 117	equity	Catalytic, early stage financing;	2020	2037	regional	Climate mitigation and adaptation tech
NDF	ADB Ventures	931 680	grant	Catalytic, early stage financing;	2020	2037	regional	Climate mitigation and adaptation tech
NDF	Energy Entrepreneurship Growth Fund (EEGF) Ref. NDF C138	7 950 742	equity	Catalytic, early stage financing	2022	2033	regional	Renewable energy, energy access
NDF	Energy Entrepreneurship Growth Fund (EEGF) Ref. NDF C138; Technical Assistance Facility (TAF)	1 403 072	grant	Catalytic, early stage financing	2022	2033	regional	Renewable energy, energy access

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	Serengeti energy	7 003 669	equity	Catalytic, innovative	2017	2025	Kenya, Rwanda, Uganda, Tanzania	Renewable energy
NDF	Serengeti energy	500 262	grant	Catalytic, innovative	2017	2025	Kenya, Rwanda, Uganda, Tanzania	Renewable energy
NDF	AGF Green Guarantee Facility	6 296 545	equity	De-risking, financing innovation, catalysing private finance	2016	2023	Kenya, Zambia, Cote d'Ivoire, Ghana	Sustainable energy, cleaner production, climate smart agriculture and natural resource management and green services

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	AGF Green Guarantee Facility	1 679 079	grant	De-risking, financing innovation, catalysing private finance	2016	2023	Kenya, Zambia, Cote d'Ivoire, Ghana	Sustainable energy, cleaner production, climate smart agriculture and natural resource management and green services
NDF	NDC Pipeline Accelerator II Ref. NDF C149	9 808 490	grant	Project preparation, early stage intervention, de-risking	2023	2028	regional	Infrastructure; land-use; agriculture; circular economy

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	Climate Investor One	4 480 980	grant	Catalytic, de-risking	2019	2037	Burundi, Cameroon, Indonesia, Uganda, Kenya, Malawi, Madagascar, Mongolia, Djibouti, Morocco, Nigeria (Asia and Africa)	Renewable energy

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
NDF	Climate Investor Two (Construction Equity Fund 2)	15 107 009	grant	Whole-of-life financing including Development Fund and Construction Equity Fund	2022	2042	Bangladesh, Botswana, Brazil, Colombia, Côte d'Ivoire, Djibouti, Ecuador, India, Indonesia, Kenya, Madagascar, Maldives, Morocco, Namibia, Nigeria, Philippines, Sierra Leone, South Africa, Uganda	Water, sanitation and ocean infrastructure projects

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Sida	ESMAP 2021–2024 – ESMAP Support 2021–2024	29 175 929	grant	project funding	2021	2026	unspecified	Energy policy; energy efficiency
Sida	The Public-Private Infrastructure Advisory Facility (PPIAF) WB 2019–2032	14 950 000	grant	project funding	2019	2032	unspecified	Business and other services
Sida	UNCDF LMF-Booster 2019–2024	20 600 000	grant	project funding	2019	2024	unspecified	Energy access; renewable energy
Sida	UNIDO 2018–22 Private Financing Advisory Network (PFAN)	9 205 560	grant	project funding	2018	2022	unspecified	Energy generation

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Sida	EARF – COVID19 off-grid relief fund - guarantee subsidy	158 453	guarantee	de-risking	2021	2027	unspecified	Energy access; renewable energy
Sida	Modern Cooking Facility for Africa	36 486 493	grant	project funding	2021	2028	Kenya, Tanzania, DRC, Zambia, Zimbabwe, Mozambique	Energy efficiency
Sida	Tanzania Clean Cooking Project	3 710 043	grant	project funding	2022	2025	Tanzania	Energy efficiency
Sida	BUILD Fund (UNCDF/Bamboo capital) [NDF C136]	1 051 114	guarantee	de-risking	2021	2031	unspecified	Energy generation; renewable energy
Sida	Renewable energy investment, BRILHO	8 518 590	grant	project funding	2021	2023	Mozambique	Energy generation; energy efficiency

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Sida	Blended finance: The Global innovation Lab for climate finance	802 895	grant	project funding	2020	2024	unspecified	General environment protection
Sida	Global Energy Transformation Programme (GET.pro) 2019–2021	7 539 831	grant	project funding	2019	2023	unspecified	Energy generation; renewable energy
Sida	Beyond the Grid Fund for Africa - Beyond the Grid Fund for Africa	91 542 572	grant	project funding	2019	2028	Burkina Faso, Liberia, Mozambique and Zambia	Energy generation; renewable energy
Sida	SunFunder Gigaton Fund	6	grant	project funding	2022	2039	unspecified	Energy generation; energy distribution
Sida	Sustainable energy access for all Second phase	6 458 443	grant	project funding	2022	2026	Mali	Energy access; renewable energy

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Sida	IFC GBTAP – Green Bonds Technical Assistance Program	6 000 000	grant	project funding	2018	2025	unspecified	Financial sector
Sida	Inclusive Markets for Energy Efficiency in Uganda 2021–2025	9 210 788	grant	project funding	2021	2025	Uganda	Energy policy; energy efficiency
Sida	Mozambique Energy for All, MDTF	33 398 791	grant	project funding	2019	2025	Mozambique	Energy distribution
Sida	AECF 2017–22 Renewable Energy and Adaptation to Climate Technologies (REACT)	48 090 445	grant	project funding	2017	2022	Burkina Faso, Ethiopia, Kenya, Liberia, Mali, Mozambique, Zimbabwe, Somalia	Energy generation; renewable energy; energy efficiency

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Sida	AREP - Advancing regional energy projects 2022–2026	10 388 120	grant	project funding	2022	2026	South of Sahara, regional	Energy distribution
Sida	Energy Efficiency in Public Buildings, UNDP – GED 3 Energy Efficiency in Public sector buildings	8 732 074	grant	project funding	2020	2025	Bosnia and Herzegovina	Energy policy; energy efficiency
Sida	Energy Efficiency in Residential Sector, UNDP – Energy Efficiency in Residential Sector	2 497 367	grant	project funding	2020	2025	Bosnia and Herzegovina	Energy policy; energy efficiency

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	African Infrastructure Investment Fund	24 319 918	equity	Catalytic, de-risking	2022	2037	Côte d'Ivoire, Egypt, Kenya, Morocco, Senegal, South Africa, Ghana, Nigeria	Renewable energy production, digitalisation, datacentres, fibre optics, ports, logistics
Swedfund	Co-operative Bank of Kenya	15 000 000	loan	Green Economy Transition	2021	2028	Kenya	Leading to private MSME businesses, supporting GDP growth
Swedfund	Bank of Georgia	15 878 305	loan	Green Economy Transition	2019	2024	Georgia	Leading to private MSME businesses, supporting GDP growth
Swedfund	Dolma Impact Fund II	10 000 000	equity	Catalytic, early-stage financing	2021	2031	Nepal	3 Core sectors: Renewable energy, health care, digitalisation

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	JCM Power	16 163 150	equity	Catalytic, de-risking	2018	2040	regional	Solar & Wind power
Swedfund	Africa Renewable Energy Fund II	15 000 000	equity	Catalytic	2021	2032	Ethiopia, Uganda, Ghana, Tanzania	Hydro, solar, wind and battery storage technologies.
Swedfund	Chigirin Solar Power Plant	10 000 000	loan	Catalytic, de-risking	2021	2022	Ukraine	Solar power
Swedfund	E3 Low Carbon Economy Fund I	9 353 815	equity	Catalytic, early-stage financing for innovation	2023	2036	Kenya, South Africa, Ghana, Nigeria	Off-grid energy access, energy efficiency
Swedfund	Evolution III	23 384 536	equity	Catalytic de-risking	2023	2037	regional	Renewable and sustainable energy infrastructure, energy access
Swedfund	Metier Sustainable Capital II	15 878 305	equity	Catalytic, innovative	2019	2031	regional	Renewable energy, Waste and Water management

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	Renewable Energy Asia Fund II L.P	11 034 481	equity	Catalytic, de-risking	2017	2029	Indonesia, India, Philippines + more	Solar, wind, hydro energy
Swedfund	South Asia Growth Fund (SAGF) III	23 384 536	equity	Catalytic, early-stage financing for innovation	2023	2035	India, regional	Many sectors, water, energy efficiency, renewable energy and value chain, AgriTech, electric vehicles, circular economy, climate tech/digital solutions and sustainable materials/green buildings.
Swedfund	Frontier Energy II Fund	14 344 826	equity	Catalytic, early-stage financing for innovation	2017	2028	Kenya, Uganda, Rwanda, Tanzania, regional	Solar, geothermal, wind and hydro power

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	Husk Power Systems	5 145 643	equity	Catalytic, early-stage financing for innovation	2018	2030	India, Tanzania	Renewable energy access
Swedfund	Serengeti Energy	18 707 629	equity	Catalytic, innovative	2022	2030	Uganda, Malawi, Rwanda, Sierra Leone, South Africa	Renewable energy, solar and mini Hydro
Swedfund	SunFunder Gigaton Fund	28 061 444	loan	Catalytic, de-risking	2023	2038	regional	Off-grid solar energy

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	Climate Investor One	16 163 150	equity	Catalytic, de-risking	2018	2037	Costa Rica, Ghana, Guatemala, India, Indonesia, Kenya, Nepal, Nicaragua, Nigeria, Panama, Philippines, Rwanda, Uganda	Onshore and near-shore wind, Solar PV, Run-of-river Hydro

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	Climate Investor Two	32 738 351	equity	Catalytic, de-risking	2022	2042	Bangladesh, Botswana, Brazil, Colombia, Côte d'Ivoire, Djibouti, Ecuador, India, Indonesia, Kenya, Madagascar, Maldives, Morocco, Namibia, Nigeria, Philippines, Sierra Leone, South Africa, Uganda	Water, sanitation sectors, ports, Shipping, Coastal and marine ecosystem management & protection

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	Interact Climate Change Facility	47 725 234	equity	Catalytic, de-risking	2022	2029	India, Côte d'Ivoire, Kenya	Renewable energy and energy efficiency
Swedfund	D.light	7 500 000	equity	Catalytic, innovative	2021	2030	India, regional	Renewable energy access
Swedfund	Solar Energy Transformation Fund	12 702 644	loan	Catalytic, de-risking	2019	2028	Myanmar, Egypt, India, Democratic Republic of Congo, Côte D'Ivoire, Ghana, Kenya, Mozambique, Nigeria, Tanzania, Zambia	Solar Energy
Swedfund	South Asia Growth Fund II (SAGF II)	15 878 305	equity	Catalytic, de-risking	2019	2030	India, Bangladesh	Energy (70 %), Agriculture (15 %), Water (15 %)

Institution	Project title	Investment (USD)	Investment type	Investment rationale	Start year	End year	Recipient country	Sector
Swedfund	SUSI Asia Energy Transition Fund	15 878 305	equity	Catalytic, innovative	2019	2029	Philippines, regional	Renewable Energy

Source: The table is based on the data collected in the three portfolio evaluations, see Chapter 2 and Appendix 3.

Appendix 2: Portfolios evaluations

Table A2: Summary of portfolio evaluations

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
BUILD Fund (UNCDF/Bamboo capital)	indirect		1	1	1	0	0	2	5
EcoMicro 2.0	indirect	employment, gender-related empowerment through access to finance	2	1	1	0	0	1	5
Emerging Market Climate Action Fund (EMCAF)	direct	Employment, adaptation	1	1	1	2	0	0	5
Africa Circular Economy Facility	indirect	Climate-smart agriculture	1	1	1	2	0	1	6

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Africa Go Green Fund (AGGF) [NDF C135]	direct	Increased resilience and adaptation, employment, gender mainstreaming	1	1	1	2	0	1	6
Facility for Energy Inclusion Off-Grid Energy Access Fund (FEI OGEF)	direct	Energy access	1	1	1	2	0	1	6
Facility for Energy Inclusion Off-Grid Energy Access Fund (FEI OGEF)	direct	Energy access	1	1	1	2	0	1	6
NDC Pipeline Accelerator	indirect	Resilient infrastructure, employment, policy support	1	1	1	2	0	1	6

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Urban & Municipal Development Fund	indirect	Improved land-use management, increased resilience and adaptation of urban communities, employment, improved water supply, sanitation, drainage and solid waste management services, improved urban mobility including through the development of mass transit systems	2	1	1	0	0	2	6

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Energy and Environment Partnership Trust Fund	direct	Energy access	1	1	1	2	0	2	7
SunFunder Gigaton Fund	direct	Job creation, energy access	1	2	1	2	0	1	7
Sustainable Energy Fund for Africa (SEFA)	direct	Employment, capacity building in the financial sector	2	1	1	2	0	1	7
ADB Ventures	direct	Employment; Gender- and inclusion-related outcomes; Adaptation; resilience	1	1	2	2	0	2	8

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
ADB Ventures	direct	Employment; Gender- and inclusion-related outcomes; Adaptation; resilience	1	1	2	2	0	2	8
Energy Entrepreneurship Growth Fund (EEGF)	direct	Energy access	2	1	1	2	0	2	8
Energy Entrepreneurship Growth Fund (EEGF) Ref. NDF C138; Technical Assistance Facility (TAF)	direct	Energy access	2	1	1	2	0	2	8

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Serengeti energy	direct	Employment, payment of taxes benefits local communities	2	1	2	2	0	2	9
Serengeti energy	direct	Employment, payment of taxes benefits local communities	2	1	2	2	0	2	9
AGF Green Guarantee Facility	indirect	Employment, women's empowerment	2	2	1	2	2	1	10
AGF Green Guarantee Facility	indirect	Employment, women's empowerment	2	2	1	2	2	1	10

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
NDC Pipeline Accelerator II Ref. NDF C149	indirect	Gender mainstreaming, promote inclusiveness by prioritising interventions that focus on marginalised and/or disadvantaged people, especially low-income populations, women and girls, LGBTQ+, indigenous peoples, afro-descendants and people with disabilities	2	2	1	2	2	1	10

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Climate Investor One	direct	Employment, increased energy access	1	2	2	2	2	2	11
Climate Investor Two (Construction Equity Fund 2)	direct	Access to water; strengthened protection of ecosystems; climate resilience	1	2	2	2	2	2	11
ESMAP 2021–2024 – ESMAP Support 2021–2024	direct	Universal energy access, health benefits, improved gender equality	0	1		1	0	0	2
The Public-Private Infrastructure Advisory Facility (PPIAF) WB 2019–2032	indirect	Climate adaptation	0	0			0	2	2

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
UNCDF LMF-Booster 2019–2024	indirect	Climate adaptation	1	0	1		0	0	2
UNIDO 2018–22 Private Financing Advisory Network (PFAN)	indirect	Climate adaptation, improved health, gender equality, education, employment	1	2			0	0	3
EARF - COVID19 off-grid relief fund – guarantee subsidy	indirect	Poverty reduction	1	1	1		0	1	4
Modern Cooking Facility for Africa	direct	Reduced deforestation, improved biodiversity, health, gender equality, just transition	2	1	1	0	0	0	4

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Tanzania Clean Cooking Project	direct	Poverty reduction, gender equality	1	1		1	0	1	4
BUILD Fund (UNCDF/Bamboo capital) [NDF C136]	indirect		1	1	1	.	0	2	5
Renewable energy investment, BRILHO	direct; indirect	Climate adaptation	1	1	2	1	0	0	5
Blended finance: The Global innovation Lab for climate finance	indirect	Food security	2	1	1		0	2	6
Global Energy Transformation Programme (GET.pro) 2019–2021	indirect	Just transition	1	2	1		0	2	6

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Beyond the Grid Fund for Africa – Beyond the Grid Fund for Africa	indirect	Poverty reduction, employment	1	1	1	2	0	2	7
SunFunder Gigaton Fund	direct	Poverty reduction	1	2	1	2	0	1	7
Sustainable energy access for all Second phase	direct	Improved employment, gender equality, climate adaptation	2	0	2	2	0	1	7
IFC GBTAP - Green Bonds Technical Assistance Program	indirect	Climate adaptation	2	2	2	1	0	1	8
Inclusive Markets for Energy Efficiency in Uganda 2021–2025	indirect	Improved gender equality, food security	2	1	1	2	0	2	8

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Mozambique Energy for All, MDTF	direct	Poverty reduction	2	1	2	1	0	2	8
AECF 2017–22 Renewable Energy and Adaptation to Climate Technologies (REACT)	indirect	Health benefits, improved gender equality	2	2	2	2	2	1	11
AREP – Advancing regional energy projects 2022–2026	indirect	Cross-border cooperation through energy transmission, higher tier energy access	2	2	2	2	2	1	11

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Energy Efficiency in Public Buildings, UNDP – GED 3 Energy Efficiency in Public sector buildings	direct; indirect	Facilitates EU accession process	1	2	2	2	2	2	11
Energy Efficiency in Residential Sector, UNDP – Energy Efficiency in Residential Sector	direct	Energy poverty reduction	2	2	2	2	2	2	12

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
African Infrastructure Investment Fund	direct	Investments are aligned with SDG 1, 5,7,8,9, 11, 12, 13, 17. Provided 2.7 million household of renewable energy, producing 5 GW of Renewable energy in 2022. By using solar, wind and hydro power.	1	1	1	1	0		4
Co-operative Bank of Kenya		Job creation, payment of taxes benefits local communities	1	1	1	1	0		4

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Bank of Georgia	indirect	Job creation, payment of taxes benefits local communities	2	1	1	1	0		5
Dolma Impact Fund II	direct	Improving gender equality and creating livelihood opportunities for local producers and suppliers. 3,600 jobs created for young people. 1,004 skilled Female employees	1	1	1	2	0		5

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
JCM Power	direct	Women empowerment, improved material, newborn and child health protection, Provides clean water to local communities in Pakistan. JPL project provides educational support to schools in rural areas, supporting quality education.	1	1	2	1	0		5

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
		<p>Rural electrification provides water and jobs in rural areas. Provides clean water to local communities in Pakistan. JPL project provides educational support to schools in rural areas, supporting quality education. Creating about 2,500 full-time jobs within green jobs – renewable energy sector.</p>							

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Africa Renewable Energy Fund II	direct	Job creation, payment of taxes benefits local communities, 30 % full time jobs for women, improved Renewable energy access	2	1	1	2	0		6
Chigirin Solar Power Plant	direct		1	2	1	2	0		6
E3 Low Carbon Economy Fund I	direct	Support the digital transformation in Africa and help create skilled jobs.	1	1	2	2	0		6

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Evolution III	direct	Investment are targeted women led green businesses in line with 2X challenge criteria. Total installed renewable energy capacity of 2.7 GW.	1	2	1	2	0		6
Metier Sustainable Capital II	direct	Creating of 1,008 new full time jobs in the renewable energy sector.	2	2	0	2	0		6

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Renewable Energy Asia Fund II L.P	direct	Local economic growth, private sector consolidation, Fight against climate change and preservation of natural resources	1	2	1	2	0		6
South Asia Growth Fund (SAGF) III	direct		1	2	1	2	0		6
Frontier Energy II Fund	direct	Investment will support employment and training of local populations. Create about 4,600 green jobs.	1	2	2	2	0		7

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Husk Power Systems	direct	Generates local job opportunities in rural villages in India & Tanzania, within agricultural sector. Provides renewable energy access into rural villages, children can complete schoolwork	2	1	2	2	0		7
Serengeti Energy	direct	creation of local green jobs	2	1	2	2	0		7

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
SunFunder Gigaton Fund	direct	Creating more than 140,000 direct and indirect jobs in clean energy companies, in low and lower-middle countries. Producing 1.2 million MWh of clean energy.	1	2	1	2	2		8
Climate Investor One	direct	Rural electrification provides water and jobs in rural areas.	1	2	2	2	2		9

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Climate Investor Two	direct	Improved health and sanitation by strengthening the water, sanitation, and oceans sectors of the Programme's host countries.	1	2	2	2	2		9
Interact Climate Change Facility	direct	Generates local job opportunities, supporting green growth initiatives, Job creation, payment of taxes benefits local communities	2	2	1	2	2		9

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
D.light	direct	Increased energy access, decreased reports of incidences of fires, burns and coughs. 85% of households who purchased live in rural areas.	2	2	2	2	2		10

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
Solar Energy Transformation Fund	direct	Improved energy access. It will enable low income households to reduce their expenditures on energy. 50% of investment will be located in rural areas, where 40% is women recipients	2	2	2	2	2		10
South Asia Growth Fund II (SAGF II)	direct	Improved livelihoods for 30,000 farmers. Provided employment for 4,000–5,000	2	2	2	2	2		10

Project name	Mitigation type	Co benefits	Speed	Scale	Systemic change	Relevance	Additional points	Additionality	Score*
		women in rural areas. Consumer savings from resource efficiency. Creation of quality green jobs. Consumer savings from resource efficiency.							
SUSI Asia Energy Transition Fund	direct		2	2	2	2	2		10

Source: The portfolio evaluations of Sida, Swedfund and NDF. The table summarises the findings from the portfolio evaluations. The column “co-benefits” lists other expected outcomes besides mitigation. For the evaluation criteria projects could be scored 0,1 or 2. This represents whether the project fulfils the criteria (No, Partially or Yes). The maximum final score is 12 for NDF and Sida and 10 for Swedfund. The team from IVL did not include additionality in their portfolio evaluation. See Appendix 3 for more information.

Appendix 3: Methodology

This Appendix describes the design and methodology of the portfolio evaluations.

An ex-ante approach

The portfolio evaluations are *ex ante* by design in that they are based on the assumed and projected outcomes of the investments that make up the three mitigation portfolios. This report therefore tells us nothing about the eventual outcomes, simply what the interventions are explicitly intended to achieve.

The reason for this design choice was the objective: to establish whether or not the three portfolios have the potential to contribute to meeting milestone targets by 2030 on the road to achieving the Paris Agreement's target of keeping global warming to no more than 1.5°C. We are projecting in order to evaluate the merits of the interventions given the needs expressed in the Paris Agreement.

It should therefore be noted that these portfolio evaluations cannot, and are not intended to, assess the actual results of the portfolios, nor the individual investments or projects therein. Proof will only be obtained by conducting *ex-post* analyses as and when the expected outcomes are realised over the coming decades.

Data collection

The initial selection of projects to include in the portfolio evaluations was based on the institutions' own categorisation of projects. As all three institutions use OECD DAC Rio markers, all climate-change mitigation actions with the Rio marker 2 – mitigation is the principle objective – were selected. Some of these projects were subsequently excluded as their intended mitigation results were unclear from the project data.

Most of the data used for the portfolio evaluations were collected from the websites or online databases of the three institutions. The reason for this was not to assess transparency but rather to minimise the administrative burden on the institutions. Aid and development cooperation is an area subjected to significant scrutiny and providing information and documentation to evaluators and researchers can be time-consuming, taking valuable resources away from other work.

Once all freely available data was collected, the teams identified key data gaps and asked each institution for additional documentation in the public domain. Failing that, they were asked to summarise and communicate any information that might fill in the gaps to the evaluation teams.

Sida provided a significant amount of additional documentation as yet unpublished on the Openaid publication database.

For legal reasons, Swedfund was unable to provide any additional project documentation, but was able to share data by email and prepared a summary of actual mitigation outcomes that covered some of their investments. The company also reports several emissions-related indicators in its integrated annual report.

NDF did not provide any additional data, also stating legal limitations.

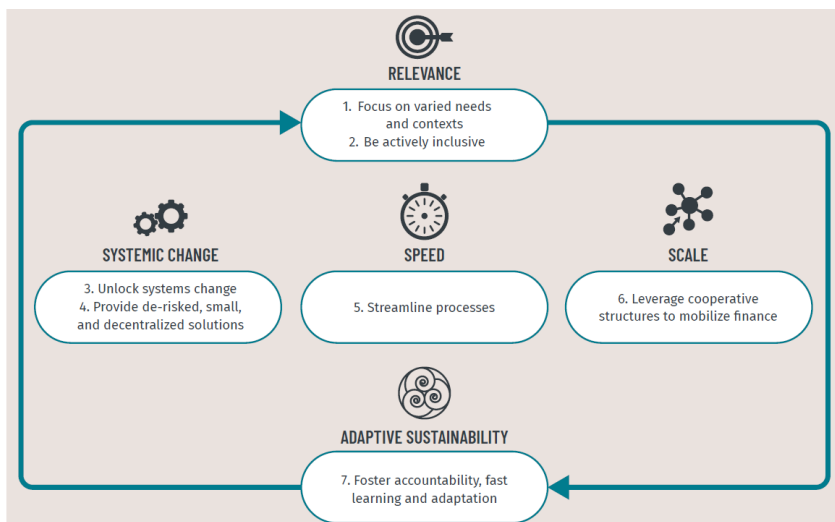
The CIF principles

In 2023, the Climate Investment Funds (CIF) published the paper *Principles for Transformational Climate Finance to Advance Just and Equitable Solutions*.⁷⁷ The principles outlined in the paper build on five dimensions of transformational change identified by the Transformational Change Learning Partnership (TCLP): scale, speed, systemic change, relevance and adaptive sustainability (see Figure A1 below).

⁷⁷ Larson, Tim; Chemor, Nacibe; Roberts, Janelle; Ward, Mike; Moin, Sarah. (2023). Principles for transformational climate finance to advance just and equitable solutions, Climate Investment Funds, Washington, D.C.

All projects in our three portfolios have been evaluated with regard to four of the five dimensions (relevance, systemic change, speed and scale). Adaptive sustainability was excluded as it was not applicable to individual projects. In addition to these four criteria, two of the evaluation teams (Sida and NDF) considered additionality. A summary of co-benefits was also prepared for each portfolio.

Figure A1: Principles for Transformational Climate Finance and the Five Dimensions of Transformational Change



Source: Larson, Tim; Chemor, Nacibe; Roberts, Janelle; Ward, Mike; Moin, Sarah. (2023). *Principles for Transformational Climate Finance to Advance Just and Equitable Solutions*, Climate Investment Funds, Washington, D.C p. 14

Based on the definitions put forward by Larson et al., the authors define the four categories as follows and analysed the portfolios based on the following evidence:

Scale: Investments are enabling faster action

- Evidence to consider
 - Mentions of how much private finance is raised for every unit of public finance
 - Mentions of catalysing and unlocking private finance
 - The investment is funding innovation

Speed: Investment outcomes will manifest by 2030 and investments contribute to streamlining access to finance

- Evidence to consider
 - Timeline of the project – when are which outcomes expected to become reality?
 - Timing of the investment: is the investment providing additional funding into a long-term ongoing initiative? Is it boosting certain initiatives, addressing needs identified in previous phases
 - 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, providing institutional support to accelerate access to finances

Systemic Change: Investments consider different levels of actors in a coordinated, interconnected and inclusive manner, and are providing new and innovative solutions

- Evidence to consider
 - Is the investment considering the whole lifecycle of an investment and/or a sector?
 - Are solutions experimental, small, and/or decentralised?
 - Are different levels (national, regional, local, etc.) and relevant actors identified/mentioned/addressed?
 - Mentions of capacity-building and institutional support

Relevance: Investments are aligned with national needs as identified through NDCs and global areas/sectors of high importance identified in the Paris Agreement

- Evidence to consider
 - Mentions of alignment with NDCs or sectors identified in the Paris Agreement
 - Using NDCs (especially conditional pledges) and the areas identified in the Paris Agreement to see if they match the sectors of the project

Additionality: Would these outcomes have come about without this project?

- Evidence to consider
 - Mentions of additionality/some form of additionality assessment
 - Innovative and experimental projects are more likely to be additional

Scoring framework

There are five categories that contribute to the overall score for transformational potential: relevance, additionality, scale, speed, and systemic change.

All five of these are initially weighted equally, and then two additional points are automatically added for projects that score a yes for relevance and scale.

All five categories are individually assessed based on the questions/definition provided for indicators and relevant evidence.

Assessment responses are:

- 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 some of the criteria/positively answers some of the questions)

Points are awarded as follows:

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

Once all five categories have been assessed, the overall score for transformational potential is assessed by adding up points for indicators across one project. Projects that are awarded 2 points for both scale and relevance receive 2 bonus points.

Limitations

This is an ex-ante evaluation of the institutions' portfolios of climate-change mitigation commitments. The analysis is qualitative rather than quantitative. The three portfolios have been mapped and then interpreted.

The analysis was compiled based on desk research and was thus limited to those insights that could be gained from the project documentation. No 'on-the-ground' checks – such as stakeholder interviews – were conducted as this was outside the scope of the portfolio evaluations. Conclusions concerning the scale, relevance and additionality of projects are therefore limited to the information provided by the institutions and their partner organisations and offer more of an insight into how the organisations themselves view their initiatives. For example, even if the project documentation says nothing about additionality, the authors cannot rule out the possibility that the project is additional. It is simply considered less likely if not explicitly stated.

Data availability posed a major challenge to the evaluators. The dearth of available data hampered the assessment of mitigation effects, intervention types and co-benefits. There is a risk that the analysis of these categories is incomplete, as not all aspects of the planned interventions were consistently described in detail in the project documentation. Consequently, disclaimers are provided regarding the overall results for these three portfolios.

The analysis is only a snapshot of the situation as the dataset consists solely of the current projects included in the three climate-change mitigation portfolios.

As most of the projects were being implemented at the time of the analysis, data on the disbursement of funds was incomplete. Data for committed funding was also contradictory for some projects due to outdated or divergent exchange rates. The figures on funding contained in the report are as accurate as possible based on the most recently available versions of or amendments to documents.

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Achieving the Paris Agreement targets will require a significant shift in global energy systems and investment patterns, including in developing countries. Informed policy decisions on climate aid require an understanding of the effectiveness of interventions. This report examines the emission reduction performance of the financing portfolios of three Swedish institutions: Sida, Swedfund and the Nordic Development Fund. The aim is to assess whether their interventions can contribute to the emission reductions required to keep global warming below 1.5 degrees.

För att uppnå Parisavtalets mål krävs en betydande förändring av de globala energisystemen och investeringsmönstren, även i utvecklingsländer. För välgrundade politiska beslut om klimatbistånd krävs förståelse för insatsernas effektivitet. Den här rapporten undersöker utsläppsminskningen från tre svenska institutioners finansieringsportföljer: Sidas, Swedfunds och Nordiska utvecklingsfondens. Syftet är att utvärdera om deras insatser kan bidra till den utsläppsminskning som krävs för att hålla den globala uppvärmningen under 1,5 grader.