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TOWARDS A PUBLIC GOODS APPROACH FOR INTERNATIONAL CLIMATE FINANCE

THE CASE STUDY OF THE GREEN CLIMATE FUND

Community Health Workers deliver essential health services during devastating floods in Pakistan (credit to All Sindh Lady Health Workers & Employees Union, Pakistan)

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- **Public Services International(PSI)** is a Global Union Federation that represents public service workers from more than 700 trade unions representing 30 million workers in 154 countries. PSI is dedicated to promoting quality public services in every part of the world.

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The GCF headquarters in Songdo, Incheon, South Korea

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https://www.greenclimate.fund/about/secretariat/headquarters

Table of contents

Part III

Figures

Part II

Part III

Tables

Part II

Part III

List of abbreviations

AE	Accredited Entity
AF	Adaptation Fund
AFD	Agence Française de Développement (French Development Agency)
ANACIM	National Agency for Civil Aviation and Meteorology (Senegal)
APIX	Investment Promotion and Large Projects Agency (Senegal)
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BUR	Biennial Update Report
CCICD	Climate Change and International Cooperation Division (Fiji)
CEB	Central Electricity Board (Mauritius)
CF	Climate Finance
COP	Conference of the Parties
CPI	Climate Policy Initiative
CReLIC	Climate Resilient Local Infrastructure Centre (Bangladesh)
CRIM	Climate Resilience Infrastructure Mainstreaming (Bangladesh)
DBO	Design-Built Operate
DFI	Development Finance Institutions
DGPRE	Directorate for Water Resource Planning and Management (Senegal)
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
FAO	Food and Agriculture Organization
FFF	Fridays For Future
GCF	Green Climate Fund
GFDRR	Global Facility for Disaster Reduction and Recovery
IDB	Inter-American Development Bank
IMF	International Monetary Fund
IPP	Independent Power Producer
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
LDCs	Least Developed Countries
LDCF	Least Developed Countries Fund

LGED	Local Government Engineering Department (Bangladesh)
MARENA	Mauritius Renewable Energy Agency
MEA	Ministère de l'Eau et de l'Assainissement (Ministry of Water and Sanitation-Senegal)
MEPU	Ministry of Energy and Public Utilities (Mauritius)
MRUHCV	Ministry of Urban Renewal, Housing and Living Environment (Senegal)
NAPA	National Adaptation Programme of Action (Senegal)
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NDR	Determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement
OECD	Organization for Economic Co-operation and Development
OIDC	Outer Islands Development Corporation (Mauritius)
ONAS	National Office for Sanitation (Senegal)
ORSEC	National Relief Coordination Plan (Senegal)
PDGI	10-year Flood Management Program (Senegal)
PPE	Personal Protective Equipment
PPP	Public-Private Partnership
PROGEP	Storm water Management and Climate Change Adaptation Project (Senegal)
SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
TA	Technical Assistance
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
WAF	Water Authority of Fiji
WRI	World Resources Institute

Executive summary

Tom Reddington
Public Services International

Introduction

The current 1.1 °C of global heating is causing increasing climate chaos. 2022 has been yet another year of unprecedented drought, flood, heatwave, wildfire, and super storms wreaking havoc across the globe. Current national pledges have the world on a pathway to overshoot the 1.5°C "safe" goal, and by far. The historical responsibility for the climate crisis lies with wealthy countries in the Global North, while the impacts are felt most heavily in low-income countries in the Global South.

International climate finance is supposed to help redress this historic reality. Developed and wealthy countries have obligations to provide developing countries the necessary funds and technology to deal with the climate crisis. At COP 15 in Copenhagen in 2009, developed countries pledged USD 100 billion a year by 2020 for climate action in developing countries, commitments which have yet to be met – and even if they were met, are wholly inadequate to meet the magnitude of the challenges being faced. The following year, the COP agreed to establish the Green Climate Fund (GCF) and in 2011, in Durban, the governing instrument was adopted. Social movements and human rights experts wanted to make sure that the GCF didn't become another debt trap for low-income countries or impose the neoliberal conditionalities common in other international financing arrangements. The UN Independent Expert on foreign debt and human rights, Cephas Lumina, called on the GCF to provide grants not loans, to be independent from the World Bank and its damaging philosophies and to "avoid over-reliance on private capital and market-based instruments for climate finance as these would cause the public interest to be subordinated to the unfettered pursuit of profit." [01]

01 Cephas Lumina, UN Independent Expert on Debt and Human Rights, https://www.ohchr.org/en/press-releases/2011/12/climate-finance-should-not-add-external-debt-burdens-poor-recipient

Market actors and market dynamics are unable to solve the global climate crisis. The corporate imperative to maximise profits in the short term and to be accountable to shareholders structurally impairs them to take effective climate action. Hence, governments must lead this fight. However, governments are proving by and large too weak, beholden to private capital and its powerful lobbies. Which means that people must organise to rebuild our democratic institutions, at local, national and global levels, and hold governments accountable for their inaction.

Access to universal quality public services, including water, sanitation, electricity, waste services, transport, hospitals and care facilities, emergency responder services, and protection of our broader environment, is an essential part of meeting basic human needs, ensuring human rights and overcoming inequality and poverty.[02] Public sector workers whose rights are respected, who are trained, empowered, democratically accountable and in decent jobs are vital to the delivery of the quality public services. These public services take on an even more significant role in the face of the climate crisis and are essential for those most at risk of climate impacts.

Strengthening quality public services in the Global South should be a key priority of international climate finance. Important lessons can be taken from the COVID-19 pandemic. To protect people from the deadly virus governments of all persuasions have had to take back control of privatised public services and rein in international supply chains designed to maximise profit.

This study aims to assess the degree to which international climate finance strengthens universal quality public services in developing countries. It focuses on the case study of the Green Climate Fund to assess whether the concerns of workers and communities have been heeded

This study consists of three parts:

1. The first chapter considers the politics of international climate finance and the failure of the dominant neoliberal approach which has shaped the policy response. It reviews the progressive climate justice analyses and considers the scope for a global public pathway approach.

2. The second chapter reviews available data on international climate finance and the Green Climate Fund. It analyses trends within this data and considers the

02 New Report: Winning The Argument for Universal Quality Public Services - PSI - The global union federation of workers in public services

implications for funding a global public goods approach and financing universal quality public services.

3. The third chapter assesses the degree to which the Green Climate Fund's "public sector" projects strengthen the capacity of universal public services. It applies this analysis to four projects in Senegal, Mauritius, Fiji and Bangladesh.

Key Findings:

1. International Climate finance operates within a neoliberal framework of "green growth". Public finance is limited to ensuring the profitability of private investment within Public-Private Partnership schemes or "innovative, blended finance." The Green Climate Fund despite its claim to overcoming past biases, is no different. International Access Entities manage the majority of GCF funds, and these are dominated by International Financial Institutions (IFIs) such as the World Bank which are key proponents of this approach. For example, the Asia Development Bank managed a climate adaptation project for the Water Authority of Fiji, which resulted in the outsourcing of hundreds of jobs and corporatisation of the authority with potential impacts on the cost households pay for water.

2. In 2020, loans accounted for 71% of international public climate finance (OECD, 2022). For the GCF, loans accounted for 42% of the funds provided to the public sector, while for the private sector, it accounted for 45%. This increases the already considerable debt burden of developing countries. In 2019, the developing countries spent 30-70% of their revenue to pay off their debts, and the Least Developed Countries' debt burden reached USD 744 billion.

3. Developed countries fell well short in providing the promised USD 100 billion per year by 2020 in international climate finance. According to the most recent report from UNEP (2022), the transition to a low-carbon economy will cost at least USD 4-6 trillion a year for developing countries.

4. UNEP (2020) estimates that USD 3.8 billion per year is required for adaptation in developing countries. Currently, adaptation is severely under-funded with international climate finance favouring climate mitigation projects over adaptation. This trend appears a product of the neoliberal model where mitigation projects tend to be easier to marketise and attract profits for private capital ("de-risked" by public funds). This is the case, for instance in the energy sector, where climate finance is used to support the development of privately owned renewable energy. The marketisation of the public services needed for climate adaptation is highly prob-

lematic and likely ineffective.

5. A broad sweep of the 'public sector' projects funded by the GCF, in sectors such as energy, water, local government and built environment, showed that the financing models for adaptation and mitigation projects are very different. The majority of mitigation cases follow the blended finance model and involve the private sector through a range of contracts, public-private partnerships and other forms of privatisation. Adaptation projects, on the other hand, tend to have a higher percentage of grants in their financing profile, and we can tentatively identify a greater focus on strengthening public sector institutions in the case studies explored in Bangladesh (FP069) and Senegal (FP021). However, it is important to recognise that GCF funding is taking place within the context of a broader neoliberal policy trend and further investigation is required to confirm the extent to which these projects are strengthening the delivery of public goods.

6. An alternative to the dominant neoliberal approach can be found in a climate justice approach that promotes a democratic, ecological, and public pathway. The concept of climate justice emerged in the early 2000s as a social movement in reaction to corporate-led globalisation and market-driven solutions designed by the Global North and has developed political principles and demands in the past two decades. While climate justice demands have made inroads into global climate negotiations, symbolised by the references to equity, justice and just transition in the preamble to the Paris Agreement, the implementation of climate finance has been conspicuous for its lack of climate justice considerations.

Recommendations:

1. International climate finance and the Green Climate Fund should embrace universal quality public service delivery as a key principle and introduce safeguards against privatisation or corporatisation of essential services.

   The public sector is more conducive to democratic accountability, can create more jobs, and provide better services. It is the only viable way to meet the adaptation needs, particularly of the global south. Blended finance that aims to induce private investment through public "de-risking" will fail to deliver quality services and jobs.

2. Developed countries should actively embrace historical justice and provide their fair share of international climate finance to reach the needs of developing countries estimated between USD 4-6 trillion a year. These commitments must be new contributions, additional to Official Development Assistance, public, grant

based, and predictable for use in relation to adaptation, mitigation and loss and damage caused by the climate crisis.

Climate finance needs to be re-cast in terms of the global north's obligation for reparation or compensation for the historical injustices that led to the suffering of the global south, not as charity that relies on the good will of countries and corporations of the global north. Further the provision of finance must not add to the crippling debt crisis facing many developing countries, which reduces the fiscal space for the provision of critical public services that communities need.

3. The Green Climate Fund needs to strengthen its position on climate finance as a public good and discard its continued emphasis on the role of private capital since that cannot deliver the services communities need.

The GCF should recognise that the most effective way to mobilise climate finance and address adaptation needs is through the public sector. The ongoing focus on "blended finance" has contributed to the slow pace of finance mobilisation and the lack of sufficient adaptation funding.

4. The Green Climate Fund must engage public sector workers and service users as key parties to review the impacts of climate finance projects in respective jurisdictions and inform future strategy.

Critical questions remain regarding the extent to which the 216 approved "public sector" projects are, in fact, strengthening the capacity of the public sector to deliver universal quality public services. Public sector workers and their unions are a key party that must be engaged to understand the effectiveness and plan future interventions.

5. The global tax system should be reformed to ensure multinational corporations and the super-rich pay a fair share of tax. This can provide important revenue to fund climate finance as a public good.

Estimates put the total amount in offshore tax havens at more than USD 20 trillion. The State of Tax Justice 2021 report reveals that countries are losing a total of USD 483 billion in tax a year to global tax abuse.[03] There is growing global momentum to tax the super profits of fossil fuel corporations. Global tax reforms provide an important revenue opportunity to ensure that climate finance is funded as a public good.

03 State of Tax Justice 2021 - PSI - The global union federation of workers in public services

Conclusion

Public Services International is a Global Union Federation that represents public service workers from more than 700 trade unions representing 30 million workers in 154 countries. We are dedicated to promoting quality public services in every part of the world. Our members, two-thirds of whom are women, work in social services, health care, municipal and community services, central government, and public utilities such as water and electricity. PSI represents public sector and private sector workers who work in public services. PSI has recently gained observer accreditation with the Green Climate Fund. This provides the opportunity to get notice of project proposals in advance, which we look forward to passing on to unions in-country and shaping interventions to advocate for universal quality public services. We also look forward to working with civil society allies across the climate justice movement to advance the case for international climate finance to be a public good.


PART

Climate Finance and the Green Climate Fund : A Climate Justice and Public Pathway Approach

Climate Finance and the Green Climate Fund: A Climate Justice and Public Pathway Approach

Sun-Chul Kim, KPTU-Public Policy Institute for People

Humanity is on a pathway to global warming of way over the 1.5°C limit agreed in Paris seven years ago. Climate disasters are occurring with greater intensity and frequency, with greater impacts on the Global South. All this because the surface temperature of earth has increased by 1.1°C since pre-industrial levels. Ostensibly, world leaders have come together to find workable solutions since the early 1990s. But the 1990s were a time when neoliberalism was rapidly expanding globally. As a result, carbon emissions in the last thirty years are greater than the amount emitted from before pre-industrial time to 1990 (Stainforth and Brzezinski 2020). All member states to the United Nations Framework Convention on Climate Change (UNFCCC), 198 in total, have signed on to the Paris Agreement with the goal of limiting global warming to "well below 2, preferably to 1.5 degrees Celsius." Yet the seven years since the Paris Agreement are recorded as the hottest seven years in history (Kaplan and Myskens 2022).

The lack of actual progress in climate crisis response goes hand in hand with the sluggish growth in climate finance (hereinafter CF). The UNFCCC principle of "common but differentiated responsibility and respective capabilities" dictates that developed countries are to provide financial resources to developing countries to fulfill UNFCCC objectives, yet the mobilisation of CF is nowhere near "at least USD 4-6 trillion a year" that the United Nations Environmental Programme (UNEP) deems necessary. The USD 100 billion a year commitment made in Copenhagen in 2009 is still unmet. The finance gap is more pronounced in adaptation at a time when the Global South continues to be pounded by extreme climate patterns. According to United Nations Secretary-General António Guterres, "adaptation needs in the developing world are set to skyrocket to as much

as USD 340 billion a year by 2030" yet "adaptation support today stands at less than one-tenth of that amount" (Carrington 2022). There is no question the world needs a a global surge in adaptation finance to protect millions of lives from climate carnage. However, developed countries of the global north are shunning their responsibility and there is little, if any, prospect that "loss and damage" for impacts of climate change that go beyond adaptation efforts will be addressed in international climate negotiations.

The GCF represents a renewed commitment on the part of the global climate regime to tackle the challenges of CF. Yet the GCF's ambitious goals of country ownership or balanced investment in mitigation and adaptation are not met. This is in large part due to the neoliberal framework within which CF, including GCF projects, operate. The failure of decades of climate action has much to do with the "green growth" paradigm that prioritised investment incentives of private corporations and financial institutions, the same mechanisms that had brought us to the current ecological woes and social collapse in the first place (Klein 2014; Aronoff 2021). Despite rallying calls for public, democratic, and ecological solutions from international trade unions and the global climate justice movement led by the global south, CF continues to be stuck on the question of how to "unlock" private sector investment to address mitigation and adaptation demands in developing countries. And while select civil society groups are allowed in the governance structure in the name of "open participation," quantitative goals, that is, mobilising as much finance as quickly as possible, remains the key focus of GCF policies and operations. This not only sidelines qualitative aspects reflecting climate justice principles, but also deters the scale of change necessary to address climate crisis and the demands of peoples suffering from its devastating impacts.

In this paper, I first look into the current state of CF that follows the neoliberal green growth approach and identify elements that make it counterproductive. Then, I examine the demands made by the global climate justice movement that highlight issues of historical responsibility and democratic/public control, which I use as a lens to assess GCF policies and operations and propose recommendations that can enhance justice, deliver actual benefits, and strengthen the power of peoples and workers on the ground.

The Neoliberal Climate Finance Paradigm

CF operates within a neoliberal framework that centers on the leading role of private capital. This is not an accident given how the emergence of the global climate regime took place in the early 1990s in the aftermath of Soviet collapse. It was a time when "the end of history" (Fukuyama 1989) was declared and when the increasing pressure of Margaret Thatcher's slogan that "There is no alternative" was felt all too real. It was also a time when neoliberalism was aggressively expanding all over the global without any brakes. The imprint of neoliberalism was unmistakable from the beginning of the global

climate regime. When the UNFCCC was first signed in 1992 at the Earth Summit held in Rio De Janeiro, Article 3 that lays out the principles made it clear that "Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade" (United Nations 1992). The world needed to combat climate change, but it had to be done within the confines of the dominant paradigm that prioritised international trade. Despite many challenges from the bottom-up, this principle has not changed in the last three decades. On the contrary, the powers that be absorbed the languages of the challengers in ways that made the neoliberal paradigm more 'resilient." In the realm of CF, this can best be observed in Inclusive Green Growth: The Pathway to Sustainable Development, a report by the World Bank published in 2012. In it, the World Bank declared that "green growth is a vital tool for achieving sustainable development" (xi), but also noted some challenges, in partial response to the growing climate justice movement, that makes "inclusivity" a necessary element in green growth policies. Hence the title, "inclusive green growth." Still, "incentivising" or "providing effective market signals" to marshal private capital was seen as the key to spurring green growth (47). When public finance was mentioned, three times in total, it was to highlight how "well-designed public finance mechanisms [could] help to mobilise private investments" (22), an example of an "enabling environment" that the World Bank sees essential for green growth.

The paradigm set out by the World Bank duplicates the private pathway adopted by the UNFCCC since the 1990s, which has failed miserably in curtailing global heating and addressing climate impacts on the global south. However, it still dominates the climate regime to this day. John Kerry, the U.S. special presidential envoy for climate change and one of the leaders working hard to accomplish CF goals, exemplifies this trend. Kerry believes that the main reason CF is lagging is because "many of the climate initiatives are not yet bankable." He wants governments to "help create the bankable deals" by absorbing investment risks so that investors can "feel comfortable" to make the investment (Dlouhy 2022). To do so, it is up to governments to first "get money on the table to de-risk the deal." This is his idea of having blended finance (McKibben 2022). It is worth noting what a leading public figure like John Kerry is aspiring to follows the advice of the CEO of the world's largest private asset manager firm, Blackrock, Larry Fink:

> "An essential part of raising the scale of capital necessary to transition emerging market economies to net zero will be using public finance to raise more private capital. Government funding in the form of grants and subsidies can absorb some of the risks that come with investing in emerging economies. They can make climate projects a viable option for institutional investors" (Fink 2021)

This model of using public finance to "catalyze" private investment follows decades of neoliberal financial practices that prioritise private capital at the expense of the public coffer. The best example can be found in the public-private partnerships (PPP), or "blended finance" in recent years, that had been promoted by neoliberal global financial institutions like the World Bank and the IMF as well as global for like the G20 and the World Economic Forum (WEF). The World Bank defines PPP as "a mechanism for government to procure and implement public infrastructure and/or services using the resources and expertise of the private sector," and suggests "a partnership with the private sector can help foster new solutions and bring finance" (World Bank 2022). It is predicated on the notion that the private sector is superior to the public sector in delivering public services-related project outcomes and that the public sector should guarantee the financial payoffs of private companies to induce their investment. In other words, PPP works only under the condition that private companies don't lose money because it is guaranteed that the public sector will pay for their losses.

However, the last thirty years of climate negotiations show that drawing the incentives of the private sector is not an effective means for protecting the environment or addressing climate issues, let alone securing the livelihood and safety of those suffering from extreme climate events. It is also the reason why adaptation finance lags mitigation finance: While investment in solar or wind energy is profitable under an increasingly privatised energy systems around the world, adaptation projects, such as providing infrastructure and helping local communities to adjust to the changing climate, are public in nature that does not easily translate into profit. This is the reason why the global climate regime is making great efforts at ensuring profits for adaptation finance—even if it costs the public. But as a PSI-commissioned report detailed (Hall 2015), providing long-term guarantees for profits to private companies through cost absorption (or de-risking) is "a concealed form of public borrowing" that sidelines public needs, undermines the quality of public services and the environment, exacerbates working conditions, and incurs higher costs.

The GCF presents itself as an innovative CF institution aimed at delivering finance to developing countries through "transformative" strategies. To what extent it is so needs more scrutiny. The core principles introduced in the GCF website include the following (https://www.greenclimate.fund/about):

1) A country-driven approach (or country ownership) that makes sure countries in need of finance lead programming and implementation.
2) An open, partnership organisation that operates through a network of over 200 Accredited Entities and delivery partners who work directly with countries in need.
3) A range of financing instruments through a flexible combination of grant, concessional debt, guarantees or equity instruments.

4) Balanced allocation that mandates 50% of its resources go to mitigation and adaptation in equally.
5) Risk-taking, patient capital that enables its partners to raise the ambition of their climate action.

Unfortunately, the GCF vows to adopt the same neoliberal model in its strategy. While the GCF embraces the needs for "human security" and "livelihoods and wellbeing," its "transformative approach" to mobilising finance at scale involves de-risking investment "by using scarce public resources to improve the risk-reward profile of low emission climate resilient investment and crowd-in private finance" (https://www.greenclimate.fund/about). In its programming manual, the GCF further clarifies its strategy to "[add] value to its partners:" "By leveraging the risk management capacity of its partners and its own set of investment, risk and results management frameworks, GCF can accept higher risks to support early-stage project development as well as policy, institutional, technological and financial innovation to catalyse CF (GCF 2020: xxii).

GCF Executive Director Yannick Glemarec offers a picture of how this works. In a speech given at the Adaptation Finance Ministerial held in Lahti, Finland last April, Yannick Glemarec makes a case for "making blended finance work for adaptation" (GCF 2022). In an example of the Global Fund for Coral Reefs, a USD 500 million private equity fund with Pegasus Capital Advisors, he says that "GCF is providing USD125 million of first loss equity to mobilise three times this amount in private equity from private and institutional investors" and proundly says that, if something goes wrong, the GCF is "the first to lose [its] money."

From Larry Fink and John Kerry to the GCF Executive Director, we see that CF operates within neoliberal framework that centers on the leading role of private capital. The role of public finance is limited to ensuring the profitability of private investment, often at the expense of public finance. However, the private pathway to CF has proved ineffective. In addition, it fails at delivering just outcomes to people in need and further strengthens the power of the private sector at the expense of the public sector. The future of climate action and finance is hopeless without addressing this bias. We need to move toward a public alternative.

Climate Justice Approach

In the past two decades, the climate justice movement emerged as a reaction to corporate-led globalisation and market- as well as technology-driven solutions at both the global and local levels and has developed demands based on the core principles of climate justice. The bottom-up movement has pushed the UNFCCC to ostensibly adopt

many of the demands. Recognition of "the specific needs and special circumstances of developing country Parties" that include the disproportionate impacts they had suffered, the need for "funding and transfer of technology," the rights of "people in vulnerable situations" as well as their capacity-building, "just transition of the workforce and the creation of decent work and quality jobs," and the concept of climate justice have made inroads into the Paris Agreement (United Nations 2015).

CF was also a product of the climate justice movement. At the 2009 COP15 held in Copenhagen, wealthy countries committed to providing CF for mitigation and adaptation in the global south. This was in part a response to the global climate justice movement's a prolonged campaign calling for historical responsibility of the global north for the cumulative GHG emissions that had caused the climate crisis. The pledge was to mobilise USD 100 billion a year by 2020, but the goal has not been met to this day (Timperley 2021). Furthermore, CF dominated by profit-seeking private capital resulted in the increase of debt in developing countries (Carty et al. 2020). Past failures at mobilising CF in a just way led to the establishment of the GCF in 2011, which began its first project implementation in 2015. The GCF sought for a balanced allocation toward mitigation and adaptation and because adaptation projects were considered less profitable than mitigation by the private sector (Quinson 2021), doing so required a greater role of the public sector. However, this has not necessarily been the case. On the contrary, negotiations on CF within the UNFCCC and GDF have been conspicuous for its lack of climate justice consideration (Khan et al. 2020; Reyes 2020). While it may be a challenge to align CF policies along the lines of climate justice in the immediate future, it is time the world strove to inject stronger climate justice demands for a more just, equitable, and effective CF regime.

There is no lack of resources. Starting from the issuing of the "Bali Principles of Climate Justice" in 2002 to the demands made by youth groups like Fridays For Future more recently, the climate justice movement has developed a set of core principles with which to address the climate crisis. The Bali Principles of Climate Justice, the first of its kind, expressed clear opposition to the early climate negotiations whose terms were set by governments and corporations of the global north and established the oppressed peoples of the global south, the same groups who had already been affected by climate change, as the main actors who should be in the driver's seat in addressing climate issues (CorpWatch et al. 2002). Since the Bali Principles, several major documents have been published.

Klimaforum09 was organised as an alternative convention aside the 15th Conference of the Parties (COP 15) held in Copenhagen, Denmark where a new framework for climate change mitigation beyond 2012 was to be discussed. With the participation of 50,000 activists, Klimaforum09 published a "People's Declaration" titled "System change—not climate change" and called for "a fundamental change in social, political, and economic structures" for a just transition (Klimaforum09 2009). In the following

year, tens of thousands of climate justice activists gathered in Cochabamba, Bolivia for a global south-led convention in which they issued a People's Agreement highlighting an anti-capitalist, anti-imperialist, and ecological solution to the climate crisis (World People's Conference on Climate Change and the Rights of Mother Earth 2010). With the explosion of climate justice action across the globe since 2018 in response to failed action, the climate justice movement has further honed climate justice principles and demands. The principles laid out by the climate just movement can be summarised in a four-pronged way in relation to CF.

1) **Historical and differentiated responsibility:**

From the set out in the Bali Principles, the climate justice movement saw "industrial nations and transnational corporations" to have caused climate change and recognised that "the impacts will be most devastating to the vast majority of the people in the South, as well as the "South" within the North." In the same vein, the Cochabamba People's Agreement confirmed that "Developed countries, as the main cause of climate change, in assuming their historical responsibility, must recognise and honor their climate debt in all of its dimensions as the basis for a just, effective, and scientific solution to climate change" and that "climate change negotiations should not be reduced to defining the limit on temperature increases and the concentration of greenhouse gases in the atmosphere, but must also incorporate in a balanced and integral manner measures regarding capacity building, production and consumption patterns, and other essential factors such as the acknowledging of the Rights of Mother Earth to establish harmony with nature." In CF terms, climate justice requires countries and corporations of the global north to fund the transition, not just in terms of mitigation but also with adaptation and loss and damage, assume historical responsibility by providing the necessary finance in the form of climate debt.

2) **Rejection of corporate- and market-solutions:**

An important part of assuming historical responsibility has to do with breaking away from the mechanisms that brought the world to the current crisis in the first place. This means moving away from the neoliberal order and depriving corporations of their prominent role in climate negotiations. The Bali Principle made clear that climate justice "opposes the role of transnational corporations in shaping unsustainable production and consumption patterns and lifestyles, as well as their role in unduly influencing national and international decision-making." Likewise, the People's Declaration of Klimaforum09 demanded the world must reject "purely market-oriented and technology-centred false and dangerous solutions" and further claimed that multilateral institutions and TNCs be rid from climate negotiations and be democratically controlled by the public: "Unjust, unsustainable, and unaccountable global economic and financial institutions like the WTO, the World Bank, the International Monetary Fund (IMF), regional development banks, donor

institutions, and trade agreements should be replaced by democratic and equitable institutions functioning in accordance with the United Nations Charter, that respect people's sovereignty over resources, and promote solidarity between people and nations. A mechanism for strict surveillance and control of the operations of TNCs should be created as well." (Klima)

3) **Addressing the exclusion of affected peoples and communities and their capacity building for climate governance:**

To rectify the current impasse, the Bali Principle rightly recognised that "local communities, affected people and indigenous peoples have been kept out of the global processes to address climate change" and demanded that "communities, particularly affected communities play a leading role in national and international processes to address climate change." This, according to the People's Declaration of the Klimaforum09, necessarily involved a just transition that requires "fundamental change in social, political, and economic structures and a rectification of gender, class, race, generational, and ethnic inequalities and injustices" and "restoration of the democratic sovereignty of our local communities and of their role as a basic social, political, and economic unit." The GCF claims to do this by claiming "country ownership" and assigning National Designated Authorities (NDAs) and Direct Access Accredited Entities (AEs), but what is missing is concrete plans to strengthen the organisational capacity of affected peoples and communities on the ground. Having government ministries take the role of NDA and development banks form the majority of AEs, which is the case today, has little to with climate justice.

4) **The principle of restorative justice in CF:**

The dominant language of CF today conjures up the image of "advanced" nations giving assistance to helpless "backwards" nations in dire need. This is grossly inappropriate, because it intentionally overlooks the historical context of imperialism and colonial exploitation that led to the disparities that exist today. It also portrays the global north's responsibility of CF as a matter of largesse, not as an issue of responsibility and obligation. The climate justice movement instead has cast climate response as part of the historical responsibility of the global north through the lens of ecological or climate debt, which dictates that "the rights of victims of climate change and associated injustices to receive full compensation, restoration, and reparation for loss of land, livelihood and other damages" (Bali Principles). Similarly, the Klimaforum09 People's Declaration sees CF as a matter of "reparations and compensation for Climate Debt and crimes," which demands "new, mandatory" mechanisms to ensure fund collection. The Cochabamba People's Agreement goes further and calls for the developed countries to "commit to a new annual funding of at least 6% of GDP to tackle climate change in developing countries," and adds that this is viable given the public money spent on national defense and

to bail out failing banks in the wake of the financial crisis.

More recently, the youth climate justice network Fridays For Future (FFF 2022) made climate reparations a central theme of its campaign. FFF claimed that climate reparations be seen "not as charity, but as a transformative justice process in which political power will return to the people," and added that this "should not be in the form of loans, but a follow through on the demands from Indigenous, black, anti-patriarchal and diverse marginalised communities to get their lands back, giving resources to the most affected communities by the climate crisis for adaptation, loss and damages – a redistribution (and in most cases, collectivisation) of wealth, technology, information, care work, and political power both from the north to the south, and from top to bottom." The position that FFF has taken reflects the increasing calls for "loss and damage" finance, a more radical call for compensation or reparation for climate damages already done. While "loss and damage" may be a far cry given the sluggish pace of adaptation finance, it is at the heart of CF demands from a climate justice standpoint because it exemplifies how cumulative injustices should and could be addressed. Voicing out strong demands for "loss and damage" may not bring about intended outcomes any time soon but doing so will certainly shed greater light on the historical climate injustices as well as how they could be rectified.

Toward a Just, Public Pathway

The global elite, in part due to the pressure created by the climate justice movement, is increasing recognising the importance of CF in addressing the climate crisis. Yet their focus is exclusively on the quantitative side of finance mobilisation (i.e., how much can we mobilise in how quick a time) and, in doing so, continues to rely on the profit-driven, corporate-led solutions in the name of public-private partnership or blended finance. But even when finance is mobilised, we see that CF can be used to destroy the public sector and jobs, as we can observe in South African workers fight against "green structural adjustment" (Williams 2022). It is important to recognise we are suffering from the overlapping crises of climate breakdown, social injustice, and democratic deterioration precisely because the world was governed by the neoliberal principle that allowed for unfettered profit-seeking of private corporations that wrecked the planetary life-supporting system. Addressing the crises means we need to move away from neoliberal private solutions, and towards a renewed public pathway that is socially just and ecologically sound.

Fortunately, climate activists worldwide are increasingly converging on the climate justice framework, the voice of the global south is becoming more amplified, and trade unions are becoming more active in connecting labor and climate justice agendas. For example, Trade Unions for Energy Democracy (TUED) recently held a "TUED South"

meeting in Nairobi, Kenya, to push forward a public pathway approach for the global south, which "is anchored in the expansion of public ownership of key sectors, particularly energy, accompanied by the implementation of a new public goods mandate" (TUED 2022: 5). This approach involves an unrelenting struggle against the green growth paradigm that dominates the climate regime, and the same struggle needs to be waged in the field of CF and against/within the GCF if we are to see meaningful change. Here are some directions that the GCF should take:

1) The GCF should recognise that the most effective way to mobilise CF and address adaptation needs is through the public sector. The sluggish pace of finance mobilisation and the imbalances in fund deliveries to mitigation and adaptation have much to do with the neoliberal approach that prioritised the private sector. But private capital will not be invested unless profits are guaranteed and this approach is antithetical to a public pathway that sees the ecological system, including the climate, and the efforts and payoffs of climate action, including a decent life for everyone, as public goods. The GCF needs to strengthen its position on CF as public goods and discard its continued emphasis on the role of private capital.

2) The GCF needs to embrace the notion of historical justice more actively. This can start by discarding the patronising language and frame of "developed countries helping out developing countries," when developed countries such as the U.S. and EU nations are responsible for nearly 70% of excess global CO2 emissions (Hickel 2020). CF needs to be re-cast as the Global North's obligation for reparation or compensation for the historical injustices that led to the suffering of the Global South, not as charity that relies on the good will of countries and corporations of the Global North.

3) The GCF should embrace quality public service delivery as a key principle. Public-Private Partnership projects that relied on profit incentives of the private sector failed to deliver quality services, reduced jobs, and weakened the public sector. Blended finance that aims to induce private investment for adaptation projects through "de-risking" will have the same effect. The public sector is more conducive to democratic accountability, can create more jobs, and provide better services.

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PART 2

Data analysis of Climate Finance regarding Public Goods Approach

Data analysis of Climate Finance regarding Public Goods Approach

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1.Introduction

Extreme climate events around the world in recent years are clear evidence of humanity's coming climate crisis. The impact of these extreme events is exponentialised through existing socioeconomic inequalities. Yet on the domestic front and the international stage, crisis response has been very sluggish and stakeholders have shown a strong tendency to maintain the status quo. This raises the question: Is the fundamental issue of structural inequality being properly addressed? And is this structural inequality between developed and developing nations being addressed, in relation to the climate crisis?

CF[04] is a step towards addressing this inequality. In the technical sense, it refers to the method and practice of financing at domestic, international, and regional levels to mitigate, and adapt to, climate change. However, CF has the following meaning as discussed in the Part I. This practice comes with a particular caveat. Climate change places less onus on developed, and more on developing countries. Of the numerous reasons, developing countries lack the means for adequate crisis response. They require support form developed countries. Support is not given just as charity, but as meaningful

04 CF refers to the flow of funds to respond to the climate crisis

participation and a gesture of jointly bearing the burden of the climate crisis. So, with that intent, how well has CF performed?

Numerous evaluations point to lackluster performance. For example, developed countries pledged an annual funding of USD 100 billion in the Cancun Agreements, but that pledge has not been honored. The sum figure of USD 100 billion is also without basis, and insufficient for the expected needs of developing countries.

As such, for the purpose of resolving the problems of inequality and injustice in the current state of CF, a critical review must be performed and solutions must be sought. To that end, Section 2 of this paper will examine the state of CF and its shortfalls. Section 3 of this paper will deal with the GCF as a key international institution in CF, and analyse its activities and shortfalls.

2. Climate Finance: Current status and shortfalls

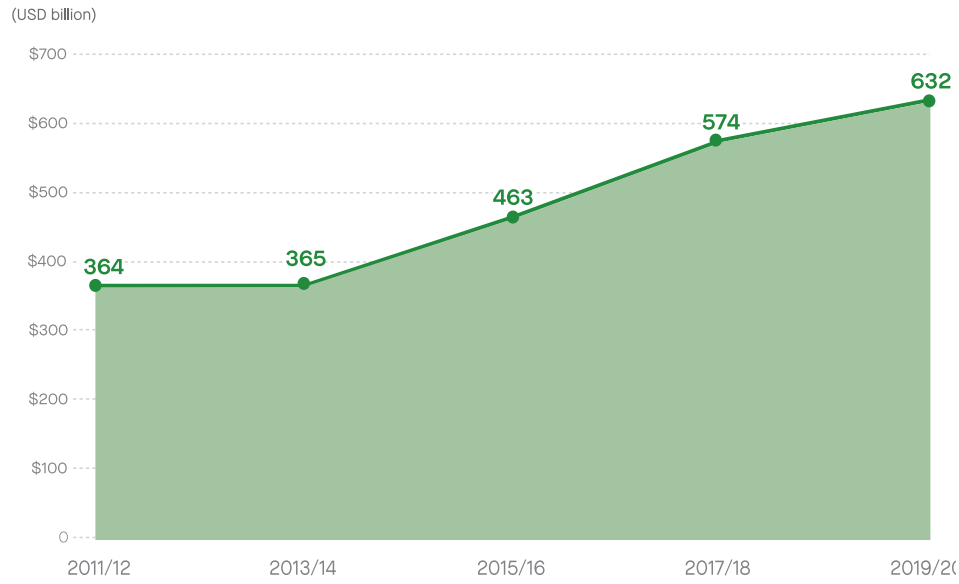
1) Current state of Climate Finance

How much CF has been raised to address the ongoing climate crisis? In this section, we will look at the climate finance at the international level, that is, the flow of funds from developed countries to developing countries. To this end, we will mainly refer to the CPI(2021) and OECD(2022). The former report contains the overall status of CF, that is, the status of domestic and international financial flows related to climate change response. The latter report contains the flow of funds (public and private) from developed countries to underdeveloped countries to respond to the climate crisis, which we are interested in.

First, the amount of CF has steadily increased over the past decade, reaching USD 632 billion in 2019/2020. However, this is still insufficient. Recent growth has slowed due to COVID-19, and despite the steady increase, a YoY growth rate of at least 590% is required to achieve the internationally agreed climate targets by 2030. Furthermore, adaptation projects continue to be under-funded for developing countries more vulnerable to climate change.

Second, CF is funded by the public and private sectors, with each taking a 50:50

Figure 01 Global climate finance flows between 2011-2020, biennial averages

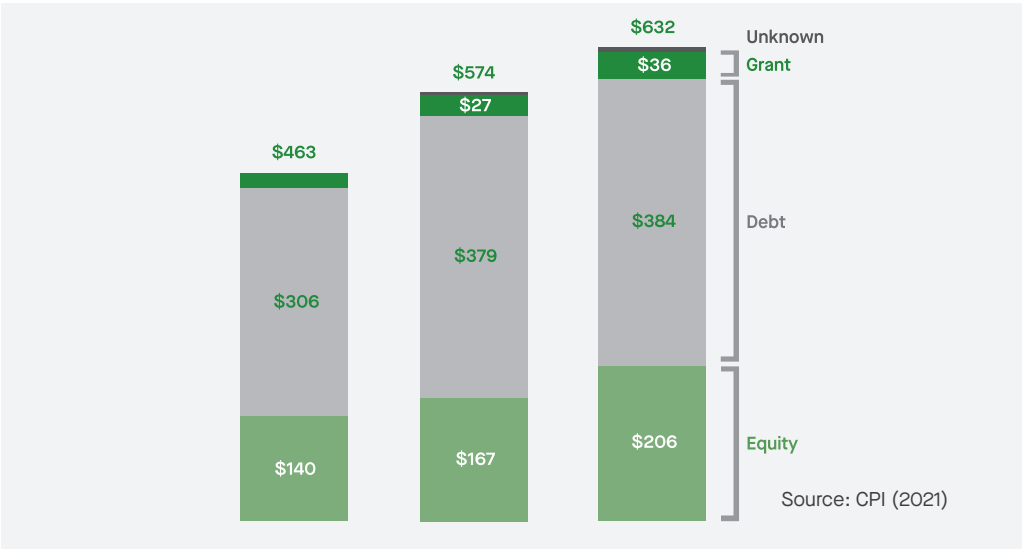


share. [05] The private sector includes non-bank companies, commercial financial institutions, institutional investors, and households. During the 2019/2020 period, public CF funded an average of USD 321 billion per year, while private CF funded an average of USD 310 billion per year, showing a ratio of 51:49 in total. Growth rates show a marked difference between the two sectors, in comparison to 2017/2018. Between those years, the public sector grew by 7% while the private sector grew by a higher 13%.

Third, how and in what form was funding mobilised? Market rate debt, through project or corporate finance, was the largest financial instrument used to channel CF in 2019/2020, at USD 337 billion per year and accounting for 53% of the total. Equity investments accounted for 33%. The figure below shows that while the share of debt fell, the share of equity investment and grant grew. The combined share of debt and equity investments, which are completely different from grant, has also decreased, but remains substantial. Grant finance, which has been the traditional means of development finance, also increased but peaked at 6% of the total.

05 According to CPI, the public sector includes governments and government agencies, public corporations, state-owned institutions and financial institutions, climate funds, development finance institutions (DFIs). The GCF, which we will be looking at, is also included here.

Figure 02 Climate Finance by instrument



Fourth, where were funds used, and how much? Uses were largely categorised as mitigation and adaptation. Mitigation finance seeks to reduce carbon emissions, for which energy systems and transport sectors account for the majority. Investments in energy supply reached an average USD 334 billion per year in 2019/2020, representing 58% of all mitigation finance and 53% of all CF. The renewable energy sector accounted for USD 324 billion of that. Transport, the fastest-growing sector, was next, reporting an average increase of 23% over 2017/2018. How about adaptation finance? CF for adaptation increased by 53%, reaching USD 46 billion in 2019/2020 compared to USD 30 billion in 2017/2018, but it continues to lag at only 7% of CF.

Fifth, how much was invested by region? Three-quarters of 2019/2020 tracked climate investments flowed domestically. Around USD 479 billion was raised and spent on climate investments within the same country. Global climate investments were concentrated in East Asia & the Pacific, Western Europe, and North America. These global investment destinations are regions with developed economies, and the money was raised and spent domestically. The remaining quarter of 2019/2020 tracked climate investment of USD 153 billion flowed internationally, which registered an increase of 8% over 2017/2018, primarily driven by increased public investments from multilateral and national Development Financial Institutions (DFI). A high share of international finance was observed in the developing regions of Sub-Saharan Africa and South Asia, which lack sufficient economic capacity to respond to the climate crisis.

The report points out that CF continues to grow, but significantly undershoots targets, while also noting strong biases by region and sector. Of particular note is that the scale of funding going to developing countries remains sorely insufficient, despite the fact that

they suffer most from the climate crisis. The international trend has been to emphasise the greater responsibility of developed countries for the disproportionate impact of the climate crisis. A case in point is the UNFCCC's 15th Conference of the Parties (COP15) in Copenhagen in 2009, when developed countries pledged a common goal of mobilising USD 100 billion a year by 2020 for climate action in developing countries. As such, we need to take a closer look at the international flow of funds, specifically from developed countries to developing countries. This can be found in the OECD's biennial report, the most recent of which states current CF as seen in Table 1 below (OECD, 2022).

Let us make note of changes in overall amount and component of CF. In 2020, the initial target year of the USD 100 billion goal under the UNFCCC, total CF provided and mobilised by developed countries for developing countries amounted to USD 83.3 billion. While representing an increase of 4% from 2019, this means that the total CF from such nations remained USD 16.7 billion short of the goal. Public CF accounted for the majority of the total at 80%. Within public CF, multilateral public CF attributable to developed countries grew 138% between 2013 and 2020, while bilateral public CF grew 40% over the same period. Private CF accounted for 16% of the total and increased by close to 30% over 2016-2020. However, the share of private CF has been decreasing since 2017, where it hit 20%.

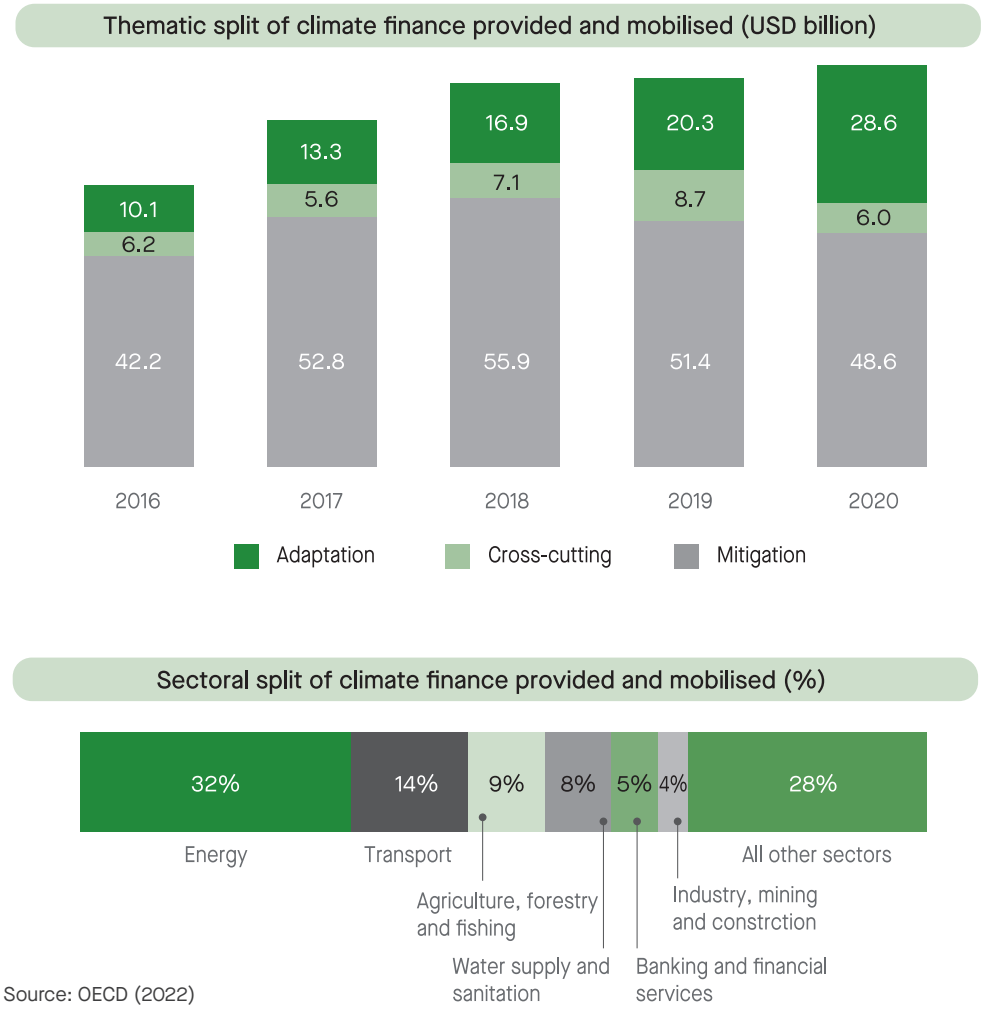
Table 01 Climate finance provided and mobilised by component and sub-component in 2013-2020 (USD billion)

	2013	2014	2015	2016	2017	2018	2019	2020
Bilateral public climate finance (1)	22.5	23.1	25.9	28.0	27.0	32.0	28.7	31.4
Multilateral public climate finance attributable to developed countries (2)	15.5	20.4	16.2	18.9	27.1	30.5	34.7	36.9
Multilateral development banks	13.0	18.0	14.4	15.7	23.8	26.7	30.5	33.2
Multilateral climate funds	2.2	2.0	1.4	2.6	2.9	3.5	3.8	3.5
Inflows to multilateral institutions (where outflows unavailable)	0.3	0.4	0.4	0.6	0.5	0.3	0.3	0.2
Subtotal (1+2)	38.0	43.5	42.1	46.9	54.1	62.1	63.4	68.3
Climate-related officially-supported export credits (3)	1.6	1.6	2.5	1.5	3.0	2.7	2.6	1.9
Subtotal (1+2+3)	39.5	45.1	44.6	48.5	57.1	64.8	66	70.2
Mobilised private climate finance (4)	12.8	16.7	N/A	10.1	14.5	14.7	14.4	13.1
By bilateral public climate finance	6.5	8.1	N/A	5.2	4.0	3.8	5.8	5.1
By multilateral public climate finance attributable to developed countries	6.2	8.6	N/A	4.9	10.5	11.0	8.6	8.0
Grand Total (1+2+3+4)	52.4	61.8	N/A	58.5	71.6	79.9	80.4	83.3

Source: OECD (2022)

Second, how much of the funding was used and in what sector(s)? As seen in the graph below, provided in the OECD report, adaptation holds a minor share of CF. Mitigation and adaptation finance provided and mobilised by developed countries both grew in absolute terms over 2016-2020. However, between 2019 and 2020, while adaptation finance rose by USD 8.3 billion (41%), mitigation finance dropped by USD 2.8 billion (-5%). Thus, while the share of adaptation finance increased, mitigation finance represents the majority of total CF. What areas have seen the most investment? Mitigation finance focused on activities in the energy and transport sectors, accounting for 46% of the total CF provided and mobilised. In contrast, adaptation finance focused on activities in the water supply and sanitation sector; and agriculture, forestry and fishing, which together accounted for 17% of total CF.

Figure 03 Thematic/sectoral split of climate finance provided and mobilised (USD billion)



Source: OECD (2022)

Third, what are the instruments of mobilisation? The results below are similar to what was in the CPI report. Public CF in 2020 mainly took the form of loans at 71% and to a lesser extent, grants. Loans increase the burden on developing economies, and the amount and proportion of grant increases steadily, but it is less than 30% of the total. Such public finance is also used to procure funding from the private sector.

Figure 04 Instrument split of public climate finance in 2016-2020 (USD billion)

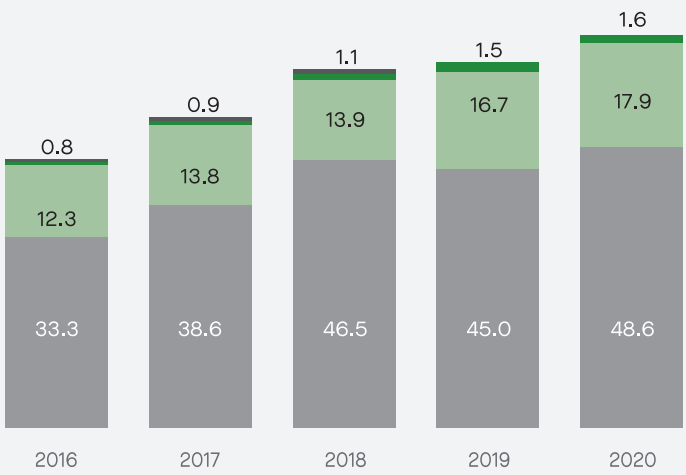


Table 02 Instrument split of public climate finance: Loans vs. Grants

Year	Loans	Grants
2020	71.2%	26.2%
2019	71.0%	26.3%
2018	74.9%	22.4%
2017	71.3%	25.5%
2016	71.0%	26.4%

Source: OECD (2022)

Fourth, in what regions was funding used, and how much was used? In 2016-2020, Asia was the main beneficiary region of CF provided and mobilised by developed countries, accounting for 42% of the total. Africa (26%), the Americas (17%), Europe (5%) and Oceania (1%) followed. It is worth noting that between 2016 and 2020, the 40 Small Island Developing States (SIDS), the 46 Least Developed Countries (LDCs) and the 57 fragile states respectively represented 2%, 17% and 22% of total CF provided and mobilied.
As already noted, the OECD report and the CPI report show the same patterns. How are we to interpret this situation? In the next section, we will look at the characteristics of contemporary CF, focusing on problems.

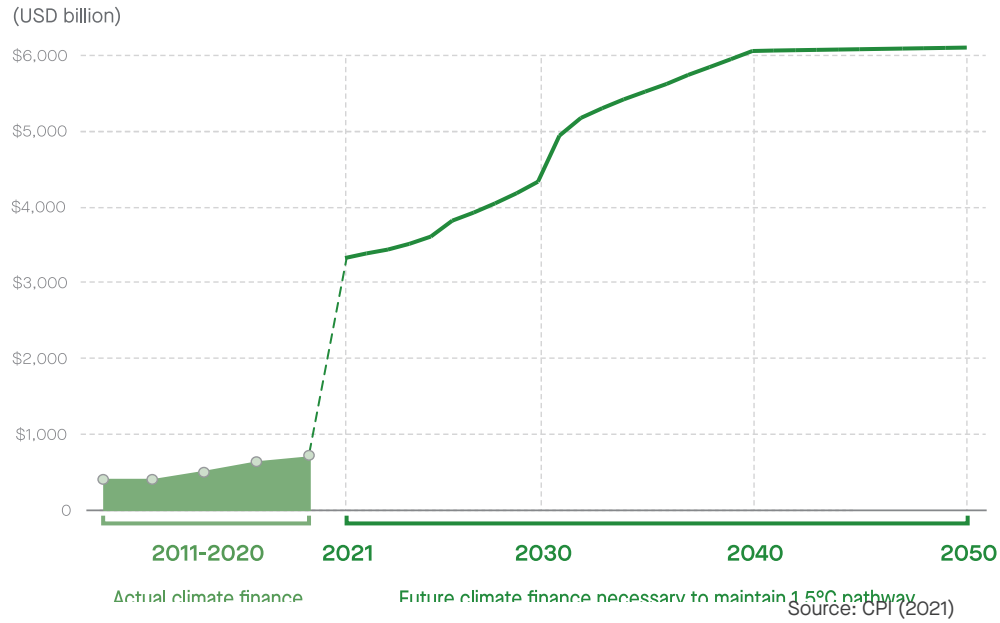
2) Shortfalls of Climate Finance

① Climate Finance as-is, is not enough to respond to climate crisis.

CF as-is, is not enough to respond to climate crisis as shown in figure 5. First, citing the CPI report's conclusion on the overall size of CF, the future CF necessary to maintain a

1.5°C pathway is conservatively estimated at USD 4.5-5 trillion annually. Similarly, UNEP (2022) estimates that the transition to a low-carbon economy will cost at least USD 4-6 trillion a year. Although this amount is about 1.5-2% of the total financial assets, it is a considerable level in terms of annual investment (UNE 2022). However, the funds required to respond to the climate crisis will be even greater, as it is predicted that even the 1.5°C route will be difficult to achieve.

Figure 05 Global tracked climate finance flows and the average estimated annual climate investment need through 2050



Source: CPI (2021)

Second, this lack of investment is identified in other aspects. How much do developing countries, more vulnerable to the climate crisis than developed countries, require CF? The first report on determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement (the first NDR) is compiled from sources submitted by developing countries, specifically national reports submitted to the UNFCCC and reports by regional and global institutions including national communications (NCs), nationally determined contributions (NDCs), biennial update reports (BURs), etc. According to the NDR, NDCs from 153 parties identified a cumulative amount of USD 5.9 trillion up to 2030. Of this amount, USD 502 billion is identified as needs requiring international sources of finance and USD 112 billion as sources from domestic finance. In addition, the NDC report of developing countries mentions more need for adaptation than for mitigation. In terms of cost, the report states USD 3.8 trillion for adaptation and USD 2.1 trillion for mitigation. The table below shows needs expressed in NDCs by region. Considering some NDCs were provided without financial

information, the final amount will be well over USD 5.9 trillion. Of course, as pointed out in this report, an accurate assessment of the needs of developing countries and cost calculations will be necessary. Despite the rough estimation of these figures, the key takeaway is that the amount of CF falls short of meeting the needs of developing countries. [06]

Table 03 Number and cost of needs expressed in nationally determined contributions by region

Region	Number of expressed needs	Number of expressed needs with financial information (i.e. costed needs)	Costed needs based on available financial information (USD billion)
African States	1,529	874	2,459.56–2,460.56
Asia-Pacific States	1,677	630	3,180.39–3,250.39
Eastern European States	282	112	9.36
Latin American and Caribbean States	771	166	168.18–168.26
Western European and other States	15	–	–

Source: UNFCCC (2021)

② Current Climate Finance is unequal for developing countries

The problem is more than just the amount of CF. Financed sectors and mobilisation methods are also seriously problematic. This exacerbates the unequal situation faced by developing countries in relation to climate crisis.

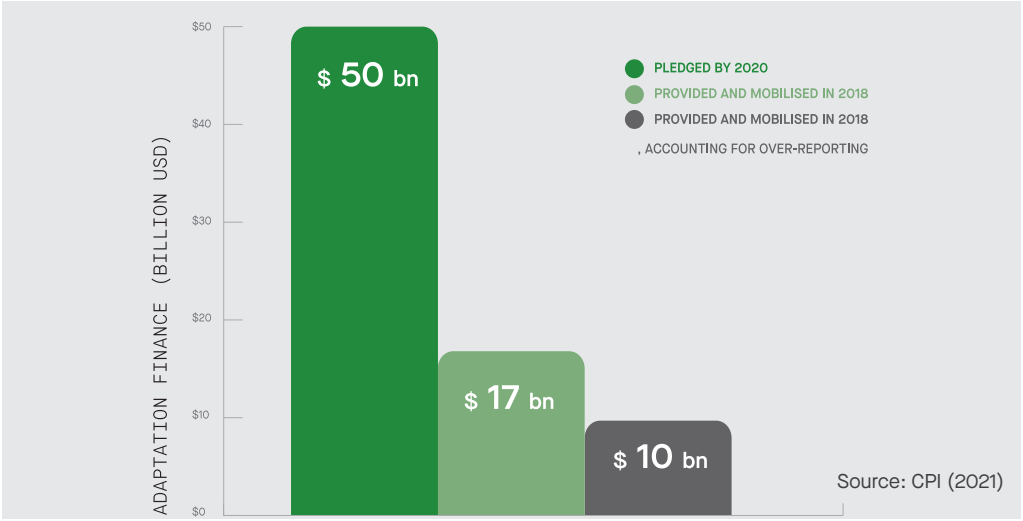
First, CF for adaptation is increasing, but remains minor relative to mitigation. This is particularly needed in developing countries. As seen in the figure below, the USD 17 billion reported in 2018 is significantly lower than the USD 50 billion pledged by advanced countries (2020) for adaptation.[07] Donors have been routinely over-reporting their funding. According to CARE (2021), donors exaggerate the adaptation component of their projects, thereby over-reporting the amount they actually spend on climate

06 The recent issue of loss and damage that the needs of developing countries are not limited to mitigation and adaptation. According to some studies, the projected economic cost of loss and damage by 2030 is USD 400 billion per year in developing countries alone. Studies of the projected costs by 2050 have estimated it to range from about USD 1 trillion to as much as USD 1.8 trillion. Of course, these cost estimates do not include costs that are difficult to quantify economically, such as loss of culture, biodiversity and ecosystem services. (HEINRICH-BÖLL-STIFTUNG briefing paper, 2020)

07 As confirmed in [Figure3], the $28.6 billion reported in 2020 is also far below the pledge.

adaptation.[08] The pledged USD 17 billion is, in fact, only USD 10 billion. CARE assessed 111 projects, representing USD 6.1 billion for adaptation finance in Africa and Asia for 2013-17. The research found climate adaptation finance to be over-reported by USD 2.5 billion across this time period. In other words, only about 59% of what was reported actually went to climate adaptation.[09]

Figure 06 Scaling up the over-reporting of adaptation finance to global level



Second, the method of finance mobilisation is a problem. As seen in the CPI and OECD reports, debt and loans are the main methods of raising CF. According to OXFAM (2020), reported non-concessional CF increased dramatically in 2017-2018. For bilateral finance, being defined as non-concessional means this finance is not offered on terms generous enough to qualify as official development assistance (ODA). CARE (2021) also cites the OECD (2020) calculation that 20% and 76% of the CF loans made by developed countries and multilateral development banks, respectively, are provided on non-concessional terms. These loans do not have grace periods, maturities or interest rates favourable enough to the recipient to be reported as ODA, yet they can still be reported as CF. This means that CF deemed to contribute to the USD 100 billion goal can

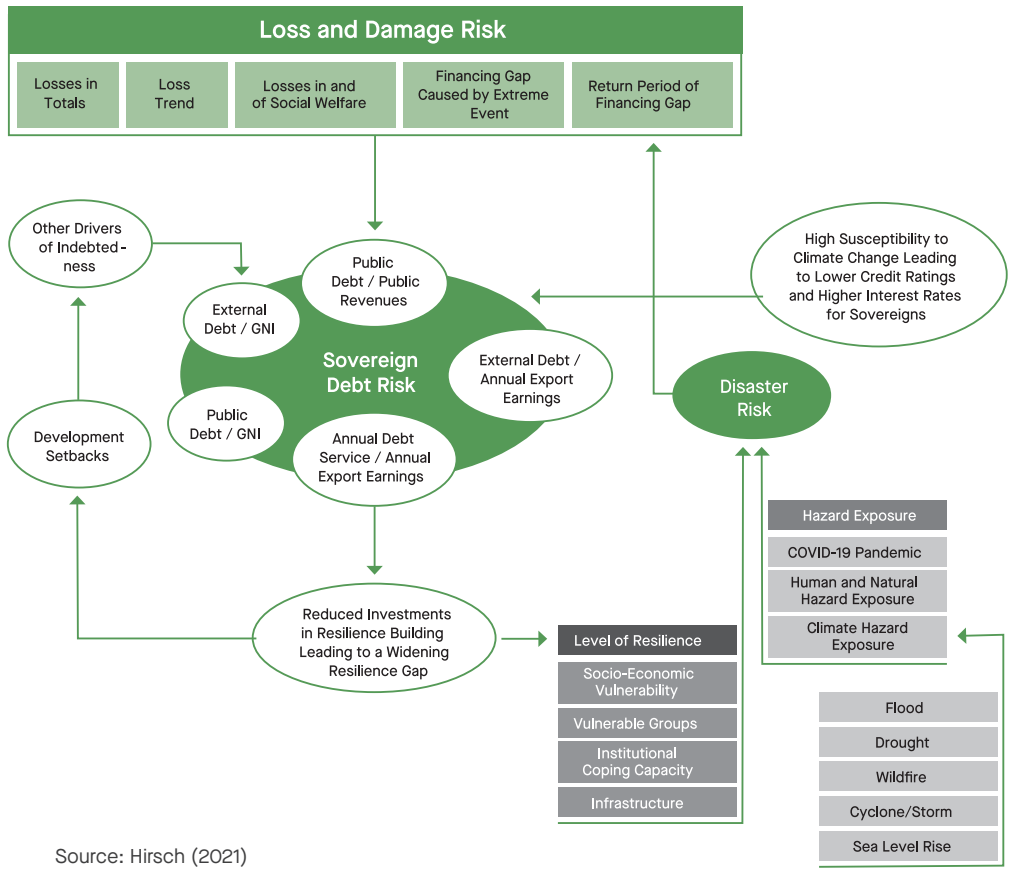
08 You can also refer to Oxfam (2020) for such analysis

09 One type of exaggeration reported by CARE(2021) is that donors report climate finance through loans as repayments plus interest. But for recipients, interest is not a component to help them at all to tackle the climate crisis. Therefore, although OECD has made grant equivalent reporting a principle since 2018, it is said that this only applies to bilateral finance and does not apply to projects funded by other means, such as multilateral institutions and development banks. Thus, if this aspect is not taken into account, the total amount of climate finance may be overestimated.

be lent at rates that deliver a profit to the provider.

Third, CF in the form of loans or debt is even more problematic due to the burden that debt places on developing countries. Even before the COVID-19 pandemic, the IMF warned that nearly half the countries in its low-income group were either in, or at high risk of, debt distress. According to the World Bank, the debt of the world's poorest countries (LDC) hit a record USD 744 billion in 2019, and prior to the pandemic, they were forced to spend 30-70% of their revenue to repay their debts (Chowdhury 2022). Debt makes it more expensive for countries to access capital, and worse, significantly depletes investment in critical sectors such as education, health and agriculture. Reduced fiscal space for these sectors and basic infrastructure also curtails countries' ability to take transformative action on climate change (OXFAM 2020). That is to say, developing countries today face a three-fold crisis. The figure below is a summary flow chart of how the overlapping crises interact.

Figure 07 The climate change and sovereign debt impact chain



Source: Hirsch (2021)

③ How should we view mobilisation of private finance?

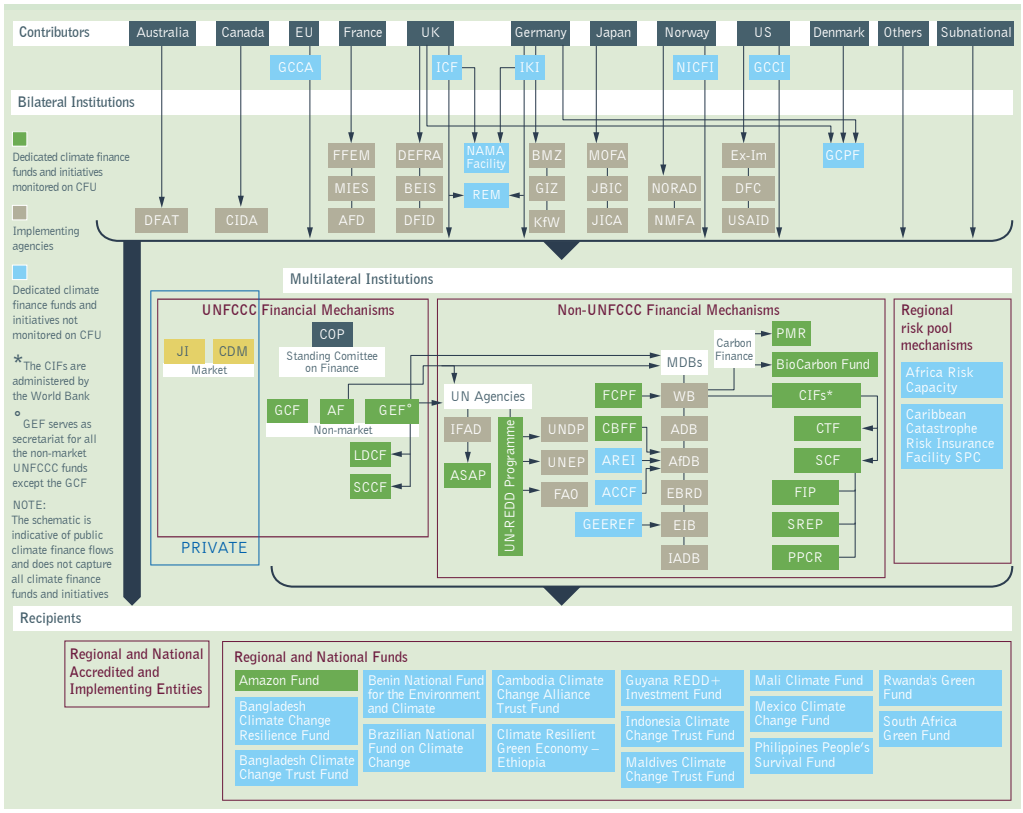
Blended finance is a concept that deserves attention in relation to the mobilisation of private finance. Blended finance is the use of concessional (priced below market-rate) capital, provided by public or philanthropic investors, to crowd-in private sector investments towards sustainable development (CPI, 2021). In short, it is a means of finance that provides synergy between the private and public sectors.
One context that emphasises this synergy is the enormous investment gap in CF. This gap is due to difficulties in public financing, which must be offset with private financing. The "From billions to trillions" manifesto captures this well. The UN report on the USD 100 billion commitment to CF highlights the need to mobilise private finance and its role as a steppingstone to public finance. The report goes on to state that "Private finance is a largely untapped pool of capital. Significant levels of international public CF resources need to be deployed to mobilise this pool. Achieving and surpassing the USD 100 billion goal is the critical steppingstone to move from billions to the trillions."[10] Here, the role of public CF is to reduce risk (de-risk) or to ensure the profitability of private capital (incentivise) to induce private investment (Bracking, S., 2021).
However, this method burdens the finances of developing countries and has the same logic as the public-private partnership (PPP) model that has been carried out in public works. That is to say, it is advantageous for financial capital, but carries the risk that investment against the climate crisis may not be of practical benefit to the citizens of developing countries.

3. Green Climate Fund: status and shortfalls

We have reviewed the unequal situation faced by developing countries in relation to the climate crisis and CF. The scope of review is further narrowed down in this section on the GCF. The GCF is CF organization under the UNFCCC. Other instituted funds under the UNFCCC include the Adaptation Fund (AF), the Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). Their organisational structure is summarised in the figure below (inside the red dotted line).

10 Delivering on the USD 100 billion climate finance commitment and transforming climate finance(Independent Experts Report Summary)

Figure 08 Global climate finance architecture



Source: Heinrich Böll Stiftung

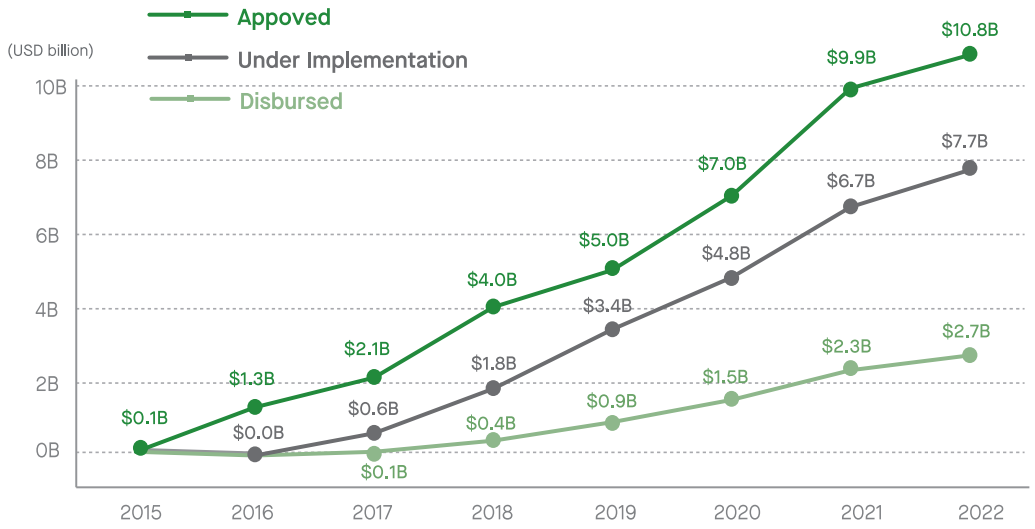
The GCF is the newest multilateral climate fund under the UNFCC, established via COP16 (2010). Unlike other climate funds, the GCF was expected to focus on developing countries, balancing adaptation and mitigation spending for countries in the Small Island Developing States (SDIS) and Least Developed Countries (LDCs). This has not been the case, and it has therefore been criticised from many sides. In particular, the shortfalls listed above for CF in general are also summarily applicable to the GCF. The following is a summary of GCF activities, followed by salient shortfalls.

1) GCF activity

GCF activities are summarised in the figure below. The number of businesses approved by the GCF has steadily increased, reaching about USD 10 billion in its supported amount 2022. USD 7.6 million is in implemented projects, which is equivalent to 83% of those

approved, but actual disbursements have totaled USD 2.7 billion. The operational time from approval to first execution has averaged 16 months from 2019 to 2022.
The low disbursement rate and long operating periods have been identified as problems, and the GCF has pledged to reduce the operating period by 60% and improve the disbursement rate by up to 80% (GCF, 2022)

Figure 09 Activities of the GCF: Approval, Implementation and Disbursement of Projects



Source: GCF (2022)

2) The GCF's shortfalls

The key issue is this: Has the GCF adhered to its founding mandate of supporting developing countries? Here are the GCF's identified shortfalls[11] :

① Funding concentrated through International Access Entities

GCF funding is channeled through either of two types of GCF Accredited Entities based on access modality: Direct Access Entities and International Access Entities. Direct Access Entities are sub-national, national or regional organisations that need to be nominated by developing country National Designated Authorities (NDAs) or focal points. International Access Entities can include United Nations agencies, multilateral development banks, international financial institutions and regional institutions. As of 2022, the GCF had accredited 113 implementing entities as partners to deliver projects.

11 FOE US&IPS(2017) and Climate Analytics(2021) are examples of related prior analysis

Of those entities, 71 are Direct Access Entities.[12]
The GCF mandate considers country ownership an important factor for the benefitting country and encourages developing countries to respond with greater agency toward climate change, in principle. However, this principle is not being met (FOE US&IPS 2017). The table below compares direct and international access entities, showing the latter to be the majority, with EBRD, World Bank and ADB being significant players.

Table 04 International Access Entities vs Direct Access Entities: approved funding

	Approved funding (USD)
International Access Entities	8,684,143,075
Direct Access Entities	2,076,358,559

Source: GCF Data Library

Table 05 Top 6 Accredited Entities by Approved Funding

Entity	Name	Country	Type	Size	Approved	Financing (USD)
UNDP	United Nations Development Programme	United States	International	Medium	36	1,165,148,121
EBRD	European Bank for Reconstruction and Development	United Kingdom	International	Large	7	1,071,389,229
World Bank	International Bank for Reconstruction and Development and International Development Association	United States	International	Large	11	983,787,592
ADB	Asian Development Bank	Philippines (the)	International	Large	12	947,481,020
IDB	Inter-American Development Bank	United States	International	Large	8	761,700,000
FAO	Food and Agriculture Organization of the United Nations	Italy	International	Medium	17	526,666,527

Source: GCF Data Library

12 KDB and KOICA were approved as accredited entities in Korea.

② Inequalities in financed amount

Is the GCF being properly utilised? The GCF shows general shortcomings in CF. First, the GCF has announced that it will support adaptation and mitigation equally, but this has not been the case.

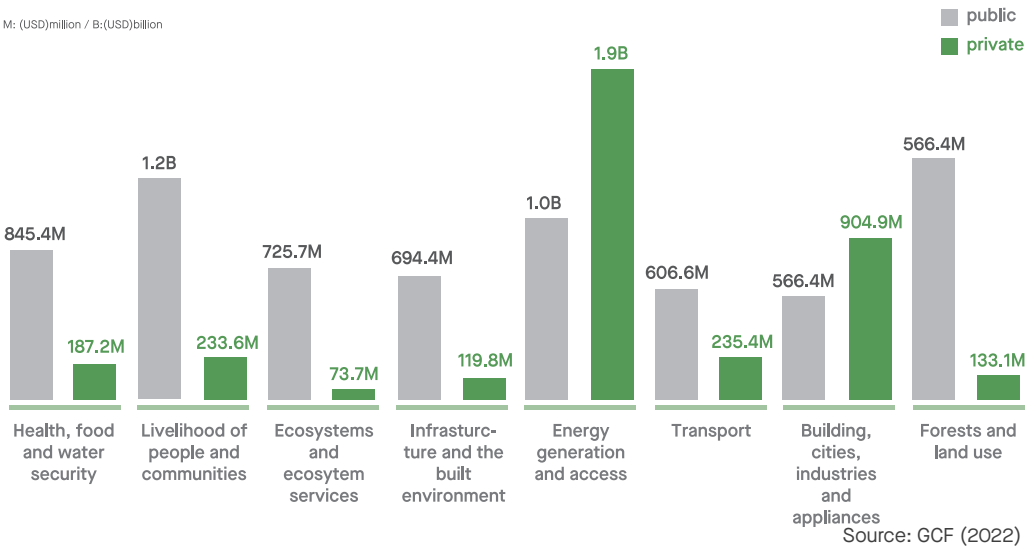
Table 06 Approved Project Value by Theme

	Financing (USD)	Percentage
Mitigation	4,687,210,508	43.5%
Adaptation	2,415,386,847	22.4%
Cross-cutting	3,662,754,777	34.0%
Total	10,765,352,133	

Source: GCF Data Library

More funds are allocated to mitigation than to adaptation. Projects by theme can be seen in the image below, with energy generation and access being the largest at USD 3 billion. Private financing is significantly greater than public funding due to relative profitability (FOE US&IPS 2017).

Figure 10 Projects by theme and key result area



Source: GCF (2022)

Second, there is insufficient support for countries in the category of Small Island Developing States (SIDS) and Least Developed Countries (LDCs). According to Climate Analytics' (2021) analysis of LDCs, 53% of the funds provided by the GCF have been for mitigation, 25% for dual use, and 21% for adaptation. The analysis further states, "This seems less consistent with the needs of LDCs, considering that they are classified as highly vulnerable to climate change not only because of their high dependence on primary resources but also because of their low financial, technical and technological capacities to overcome/resist climate shocks (floods, droughts, etc.)."

Table 07 Funding size for SIDS and LDCs

	Financing	Percentage
SIDS & LDCs	321,809,852	2.99%
LDCs	2,700,967,459	25.09%
SIDS	949,357,857	8.82%
Total Funding	10,765,352,133	

Source: GCF Data Library

③ Inequalities in financing vehicles

Fund allocation methods also share the same challenges as CF. As seen in the diagram below, a variety of for-profit loans and other means are being used in addition to aid.

Figure 11 Public Sector Financing

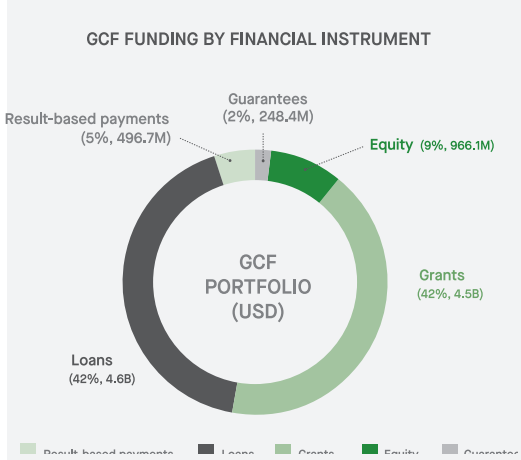
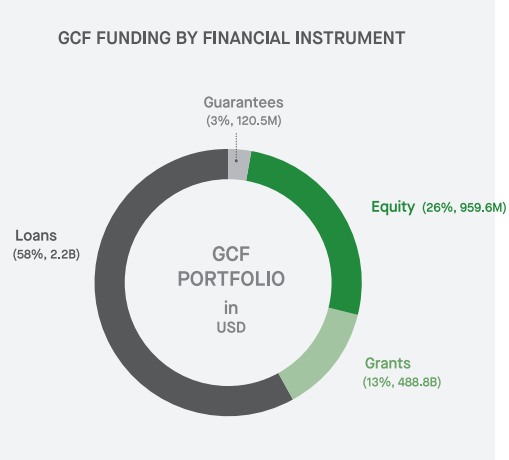


Figure 12 Private Sector Financing



Source: GCF (2022)

The difference in dollar amounts between grants from the public sector and that from the private sector is over two-fold, where total public sector grant is approximately the same as loans from the private sector. Due to this, criticism has been raised that the GCF is no different from a bank.
The table below shows how funds are mobilised for each project. Funds mobilised via grants are a major part of adaptation projects, but the opposite is true for cross-cutting and mitigation projects.

Table 08 Mobilisation Instruments by Theme

THEME	Financial Instrument	Measure Values (USD)
Adaptation	Equity	248,000,000
	Grants	1,947,785,401.86
	Guarantees	40,000,000
	In-kind	0
	Senior Loans	171,414,800
	Subordinated Loans	0
	Undefined	0
Cross-cutting	Equity	97,500,000
	Grants	1,542,220,182.76
	Guarantees	1,500,000
	In-kind	0
	Reimbursable Grants	165,000,000
	Senior Loans	1,786,123,750.19
	Subordinated Loans	63,400,000
	Undefined	0
Mitigation	Equity	620,554,103
	Grants	545,800,246
	Guarantees	206,800,000
	In-kind	0
	Reimbursable Grants	276,000,000
	Results-Based Payments	496,740,062
	Senior Loans	2,266,999,718
	Subordinated Loans	270,750,000
	Undefined	0
All		10,746,588,263.81

Source: GCF Data Library

④ Private finance mobilisation

Private finance comprises a significant portion of the GCF. The Private Sector Facility within the GCF is responsible for expanding the overall scale of CF through private investment. So, what is the status of private finance and what problems can be pointed out.

First, the brief current state is as follows. The table below shows that for GCF Funding, co-financing from the private sector is matched 1:3.

Table 09 GCF Funding vs Co-Financing

Year	Total GCF Funding (A) (USD)	Total Co-Financing (B)	A/B
2015	25,000,000.00	85,000,000.00	29.4%
2016	535,500,000.00	1,411,400,000.00	37.9%
2017	293,350,050.00	1,446,206,870.00	20.3%
2018	661,311,754.39	1,692,980,935.67	39.1%
2019	351,345,029.24	1,914,945,029.24	18.3%
2020	297,930,000.00	974,708,000.00	30.6%

Source: UNFCCC Climate Finance Data Portal

In addition, the status of entities providing funds in the form of co-financing loans in the GCF is as follows. In terms of the size of funds, the main private entities are PCA (Pegasus Capital Advisors), FMO (Financierings-Maatshcappij Voor Ontwikkelingslanden), EBRD, AFDN and so on.

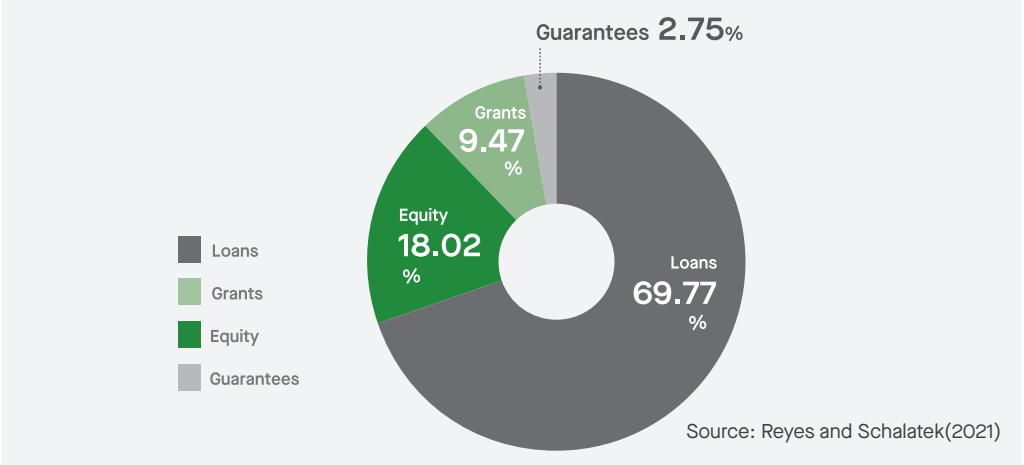
Table 10 Status of entities in PSF projects

Entity	Ref#	Theme	Project Size	FA Financing (USD)
XacBank	FP028	Mitigation	Medium	20,000,000.00
	FP046	Mitigation	Small	8,650,050.00
	FP153	Mitigation	Small	26,654,103.00
	SAP004	Mitigation	Small	10,000,000.00
PCA	FP152	Mitigation	Large	150,000,000.00
	FP180	Adaptation	Large	125,000,000.00
	FP181	Adaptation	Large	100,000,000.00
NEFCO	SAP013	Cross-cutting	Small	9,900,000.00

Entity	Ref#	Theme	Project Size	FA Financing (USD)
NABARD	FP081	Mitigation	Medium	100,000,000.00
MUFG Bank	FP115	Cross-cutting	Large	60,000,000.00
	FP128	Mitigation	Medium	25,000,000.00
MAAML	FP186	Mitigation	Large	200,000,000.00
JS Bank	SAP024	Mitigation	Small	10,000,000.00
IUCN	FP151	Mitigation	Large	18,500,000.00
IDCOL	FP150	Mitigation	Medium	256,480,000.00
IDB	FP048	Cross-cutting	Medium	20,000,000.00
FMO	FP099	Mitigation	Large	100,000,000.00
	FP164	Mitigation	Large	137,000,000.00
	FP190	Cross-cutting	Large	145,000,000.00
FDB	SAP016	Mitigation	Small	5,000,000.00
EBRD	FP025	Cross-cutting	Large	378,000,000.00
	FP039	Mitigation	Large	154,700,000.00
	FP047	Mitigation	Large	110,000,000.00
	FP140	Mitigation	Large	258,030,000.00
Deutsche Bank	FP027	Mitigation	Large	80,000,000.00
DBSA	FP098	Cross-cutting	Medium	55,610,000.00
	FP106	Mitigation	Large	100,000,000.00
CRDB	FP179	Adaptation	Medium	100,000,000.00
CI	FP026	Cross-cutting	Medium	18,500,000.00
CAF	FP017	Mitigation	Medium	39,000,000.00
	FP149	Mitigation	Medium	100,000,000.00
CABEI	FP097	Adaptation	Small	15,500,000.00
BOAD	FP105	Mitigation	Medium	61,183,550.65
AfDB	FP080	Mitigation	Medium	52,500,000.00
	FP096	Mitigation	Medium	21,000,000.00
	FP114	Cross-cutting	Small	20,000,000.00
	FP168	Mitigation	Large	170,900,000.00
	FP178	Mitigation	Large	150,000,000.00
AFD	FP095	Cross-cutting	Large	240,722,166.50
Acumen	FP005	Cross-cutting	Micro	25,000,000.00
	FP078	Adaptation	Micro	26,000,000.00
	FP148	Mitigation	Large	30,000,000.00

Source: GCF Open Data Library

Figure 13 Private Sector Finance by financial instrument



Third, the GCF emphasises the need to attract private capital, highlighting the advantages of blended finance. In 2022, its executive director emphasised the role of blended finance in adaptation projects and highlighted the following points.

> (omitted) We allocate 50% of our funds to adaptation and give priority to the most vulnerable countries. With its partners, GCF aims to drive transformative climate solutions through four work streams: (1) Nurturing enabling environments by promoting transformational strategies and policymaking; (2) Accelerating innovation through investments in new and innovative technologies, business models, financial instruments, and practices; (3) Exploring new de-risking structures to make blended finance better work for adaptation, ecosystem-based approaches and the most vulnerable; (4) Helping domestic financial institutions mainstream climate risks and opportunities into investment decision-making and access capital markets to finance the widespread adoption of commercially proven new climate solutions.[13]

13 "We allocate 50% of our resources to adaptation, prioritising the most vulnerable states. We have adopted a four-pronged approach to create new adaptation markets and catalyze private finance at scale. First, we create an enabling environment for climate action by promoting integrated strategies, planning and policymaking with support from our grant-based Readiness programme. Second, we accelerate climate innovation through investments in new and innovative technologies, business models, financial instruments, and practices. Third, we de-risk high impact projects that otherwise would not be seen as bankable investments in order to establish a commercial track record for new adaptation solutions. And finally, we align finance with sustainable development by empowering domestic financial institutions in developing countries to appraise and finance these commercially proven new climate solutions." (https://www.greenclimate.fund/speech/making-blended-finance-work-adaptation)

What can we learn from the GCF's state of private financing? Simply attracting private finance to bolster CF appears to attract profit-seeking behaviour toward developing countries, rather than addressing the injustices and inequalities of climate crisis. The proportion of grant is insignificant in terms of financing method, the GCF appears to serve as either a priming agent for private funding or a springboard for risk elimination.

4. Conclusion

Is today's CF sufficient to respond to climate crisis, especially in developing countries? We overviewed CF and looked specifically at the Green Climate Fund, pointing out insufficiencies such as the lack of investment in adaptation, a bias toward adaptation, the tendency towards lending and debt financing rather than grant, and efforts to use public finances as a means to mobilise private finances. Considering those points and the urgency of the climate crisis, more capital needs to be raised publicly to support climate adaptation in developing countries. It is necessary to seek a structure in which adaptation and mitigation projects invested in by the state or regional initiatives can be operated publicly in the future. It is also necessary to critically evaluate and question the current direction of seeking private financing, citing the insufficient funding laid out herein.

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PART 3

Green Climate Fund case studies

Green Climate Fund case studies

Sandra Van Niekerk, Public Services International

1. Introduction

This component of the research focuses on a more detailed analysis of some of the projects that GCF is funding. The aim is to explore the extent to which projects categorized by the GCF as "public" are in fact building and strengthening the public sector in order to respond to the climate crisis. We are looking for best practice examples of how CF can be used to strengthen public goods under public ownership, extend services to those most in need, and protect the vulnerable from some of the worst impacts of climate change, within a framework of decent work and respect for public service workers. The analysis of these cases must be understood within the context of the overarching neoliberal framework which centres private finance, and the limited amount of CF, which has been explored in the previous two sections.

It is imperative that the private sector takes responsibility for implementing both mitigation and adaptation measures in different economic sectors, but it is a democratic, accountable state which must be at the centre of the response to climate change. It is the state that must create the enabling environment to encourage and promote climate friendly and climate resilient practices in other economic sectors, it is the state that must lead by example in its practices and it is the state that must deliver the public services which are so essential to building low-carbon, equitable, just and climate resilient

societies.

Access to universal public services, including water, sanitation, electricity, waste services, transport, hospitals and care facilities, emergency responder services, and protection of our broader environment, has always been an essential part of meeting basic human needs, allowing people to live with dignity and respect, and overcoming inequality and poverty.[14]

These public services take on an even more significant role in the face of the climate crisis – they are at the forefront of responding to the overwhelming consequences of the climate crisis. Unfortunately, however, in many countries these services have been undermined and are unable to fully meet their mandate because they are underfunded, delivered on the basis of austerity budgeting, and subject to some form of privatisation, commercialisation or commodification.

Public sector workers that are respected, trained, empowered, democratically accountable and in decent jobs are vital to the delivery of the Quality Public Services that are needed, particularly now in the face of the climate crisis. However, these workers must instead live with the reality of services that are underfunded, understaffed, under-resourced and outsourced. We saw this during the COVID-19 crisis. At a time when public services where so vital to the response to the pandemic, many public sector workers found themselves subject to work intensification, long hours, little job security, and insufficient PPEs or other essential Occupational Health and Safety measures.

CF needs to be orientated towards strengthening the public sector and rebuilding the state's capacity to take the required action to deal with climate change. If left to the private sector, which has as its overarching aim, profit maximisation, Universal Quality Public Services will not be sufficiently strengthened. Privatisation and outsourcing of services has been found to lead to greater inefficiency in service delivery, and the undermining of redistributive and social justice imperatives, as private companies seek to reduce costs by reducing the cost of the service to the company, which means impacting on the quality and spread of services, as well as on working conditions. In contrast, when public services are delivered by sufficient numbers of workers who are directly employed within the public sector, who are well trained, and who earn a living wage and work under decent conditions, it is possible to deliver a Universal Quality Public Service.

The GCF currently has 160 approved projects that are designated as public sector projects. Within this category, we decided to focus initially on those cases involving public utilities or local/regional government as the areas where large numbers of public sector

14 PSI (2021) Universal Quality Public Services: a policy briefing for trade unions; Cibrario, D & Weghmann, V (2021) Access to quality local public services for all: a precondition to beat inequality

workers are found. We thus filtered the public sector projects further by focusing on these areas.

- Energy generation and access
- Health, food and water security
- Infrastructure and built environment
- Buildings, cities, industries and appliances
- Transport

After a broad sweep through the 128 cases that this threw up, we further narrowed it down by excluding projects which focused on climate warning system, protecting the ecosystem, changing agriculture practices, and protecting livelihoods.

It must be emphasised that all we were able to do within the scope of this project was a broad assessment of the majority of the remaining 61 cases which has allowed us to identify trends and themes around the extent to which the approach taken by the GCF is promoting Quality Public Service delivery as a vital component of the response to climate change.

Of the total of 60 projects we looked at:
20 were mitigation projects;
25 were adaptation projects; and
14 were cross-cutting projects

Apart from this broad assessment, we focused in more depth on four case studies which are presented in this paper:

1. Dakar, Senegal: an adaptation project focused on strengthening the drainage system in Dakar in response to frequent flooding.
2. Mauritius: a mitigation project focused on expanding the use of renewable energy across the country.
3. Bangladesh: an adaptation project focused on building infrastructure in both rural and urban areas to cope with cyclones and other climate change impacts
4. Fiji: an adaptation project focused on strengthening the water and sewerage system against the impact of floods, drought and increasing salinity.

One of the challenges in assessing these projects was how to determine whether projects would strengthen QPSs. We identified a number of questions to help guide us:

1. Who is financing the project?
2. Is the project strengthening public sector institutions or entities to enable them to deliver Universal Quality Public Services?

3. What type of contracts are involved? Are they procurement-type contracts or public-private partnerships?
4. Is there an overt commitment that work carried out by the project will be done on the basis of decent work?
5. Are there tariff implications in the project?

These are not, however, a definitive set of questions. Many of the above questions could be further unpacked with sub-questions. For instance, the question on whether the project strengthened the public sector could be further explored to understand whether the institutions strengthened were at a national, regional or local level, and exactly what capacity was being strengthened.

However, the answers to these questions, let alone any additional questions, is not always immediately apparent on a broad sweep of case studies. To really understand each project in relation to these and other questions would require each case study to be examined in more depth. This is area of future research for selected case studies.

It is not possible to give a definitive analysis of the 'public sector' projects that the GCF has financed, without doing a detailed analysis of each case. However, it is possible, on the basis of the initial survey, to pull out some key trends and themes.
The table below identifies some of the trends in the mitigation cases:

Table 01 Trends in surveyed mitigation cases

No of cases / measure	Sector	GCF funding (excluding co-financing)	Accreditation agency	Strengthening public sector institutions
20 Mitigation	14 Energy	9 – grants and loans	IDB (4 cases); ADB, West African Development Bank, IBRD, Asian Development Bank	In all cases the tentative assessment is that project won't strengthen public service delivery – generally will involve some kind of concession agreements with private sector
		4 – grants only	UNDP for three cases; Asian Development Bank for 1 case	
		1 – grant and guarantee	IBRD	
	3 Transport	3 through grant and loan	Asian Development Bank; Central American Bank for Economic Integration; Corporacion Andina de Fomento (CAF)	
	2 Cooking solutions	2 through grants	GIZ; Alternative Energy Promotion Centre (Nepal)	
	1 Catalyzing finance	1 through grant and loan	Asian Development Bank	

The table below identifies some of the trends in adaptation cases:

Table 02 Trends in surveyed adaptation cases

No of cases	Sector	GCF component of financing	Co-financing component	Accredited agency	Strengthening public sector
25 adaptation cases	1 energy (adaption measures applied to hydropower plant	Through grant and loan		European Bank for Reconstruction and Development	Tentatively yes
	13 Water and sewerage services	Grants	9 cases – co-financing is grants or in-kind only (no loan or equity)	1 UNEP 4 UNDP AFD Centre de Suivi Ecologique	Tentatively yes for all except Fiji where DBO contracts will be used
	10 Built environment	Grants	8 cases – co-financing is grants or in-kind	World Bank Palli Karma-Sahayak Foundation (Bangladesh) Department of Environment, Ministry of Health and Environment, Government of Antigua and Barbuda UNDP (4 cases) KfW JICA	Tentatively yes for all
	1 Local Government	Grants	1 case – co-financing is grants or in-kind	Pacific Community	

As can be seen from the above tables, the majority of mitigation cases, which are regarded as 'bankable' projects, are funded in a way which reflects the expectation that they will be profit-making ventures, with even the GCF funding component incorporating loans. In most of the cases, particularly in the energy sector, the private sector will be centrally involved through IPPs and concessionary contracts.

In contrast to this, the adaptation projects are all funded on the basis of full grants from GCF, as well as grants or in-kind payments for the co-financing component.

Most of the adaptation cases can be tentatively identified as contributing to the strengthening of public sector institutions and the delivery of public services. However, more detailed analysis of these cases needs to be done to confirm this. The survey of cases that was done might have missed some of the nuances of the cases which impact on the extent to which, in a broadly neoliberal global context, these projects meet the criteria for enhancing the delivery of quality public services.
Project name: Senegal Integrated Urban Flood Management Project

2. Dakar, Senegal

- Project number: FP021
- Accredited entity: AFD
- Approved: October 2016
- Implementation started: October 2018
- Projected end date: April 2025
- GCF funding: USD 14.5m Grant (21.1%)
- Co-financing: USD 54.2m Loan and equity (78.9%)

2.1. Introduction

This case study was chosen as an example of funding for urban infrastructure. Dakar is a city in Senegal, Africa. Senegal is categorized as a Least Developed Country.
The story of Senegal's efforts to deal with flooding, particularly in Dakar, is important because it emphasizes how essential effective urban planning and well-maintained urban infrastructure is to reducing climate risks. It also highlights some of the difficulties of coherent responses to climate related issues when there are different and sometimes competing interests between national government and decentralized municipalities.

And very importantly, it highlights the impact that donor interventions can have on solving public sector problems. As Schaer et al (2018) have argued, donor interventions tend to result in the proliferation of new institutions and structures. Donor organisations set these up to ensure that they keep control of their resources, but the result is often not helpful in meeting the actual needs of the country.

In relation to the GCF, this case study is important because this project is focused on adaptation funding, in a context where much climate finance is made available for mitigation projects. Flood risk management is generally not an income generating area.

2.2. Background

Dakar, the capital city of Senegal, is a low lying port city, which, as it increases in size, faces ongoing environmental and socio-economic challenges. While approximately a quarter of the country's population live in Dakar, it only covers 1% of the country's territory.[15] Dakar alone is responsible for about one-third of the country's greenhouse gas emissions.

The effects of climate change that Senegal is most vulnerable to include drought, locust invasions, flooding, sea-level rises, coastal erosion and bush fires.[16] Dakar has become particularly prone to flooding. This is partly as a result of overflowing rivers and generalized flooding as the number of heavy rain events increases.[17] But this is exacerbated by the inadequate stormwater drainage system in a context where there is increasing urbanization and poor urban planning. The situation is such that there is now flooding every rainy season.[18] As more people flock to the cities in an ongoing

15 the country's territory

16 https://climateknowledgeportal.worldbank.org/sites/default/files/2018-10/wb_gfdrr_climate_change_country_profile_for_SEN.pdf

17 These heavy rain events are predicted to increase as a result of climate change, although overall the amount of rain will decrease.

18 Schaer, C et al (2018) p 1

process of urbanization (ironically, often as a result of drought in the rural areas), the city infrastructure becomes denser with more buildings and roads. This prevents sufficient infiltration when there is rain, and the problem of flooding increases. It is estimated that approximately 40% of the population of the peri-urban zone of Dakar is highly exposed to flooding.[19]

Over the years, there have been numerous studies and analyses undertaken in relation to the problem of flooding (see Schaer (2020) for details of these numerous studies). The government, in turn, has introduced many flood mitigation and adaptation strategies. However, the problem of flooding and its devastating impacts has continued.

Initial attempts to deal with the flooding tended to focus on dealing with the immediate relief needed after flooding. One of the more important plans in these years was the Jaxaay Plan which aimed to resettle people living in low-lying flood-prone areas.

A specifically government run programme, the National Relief Coordination Plan (ORSEC), implemented by the Directorate of Civil Protection, focuses mainly on dealing with immediate relief needs, rather than addressing any underlying causes. This is partly because this programme is under-resourced. It means that the structure is unable to solve flooding problems in the long term.[20] Over the years, a wide range of aid and development organisations have also involved in immediate disaster relief. Rather than solve the problem long-term, these interventions have often been short-term and have focused on creating administrative and at times competing processes.

As noted by Schaer, "The presence of many donors and international aid agencies in the country and the abundance of funds allocated to flood responses have created complex national flood management processes attracting a wide array of competing actors and institutions. These are directly and indirectly involved in flood related interventions through a multitude of diverse projects and programmes aimed at flood risk reduction, disaster relief, recovery and long-term climate adaptation."[21]

After the massive flooding of 2009, which affected approximately 360 000 people in Senegal,[22] more coherent and focused attempts were made to deal with the underlying problems and challenges which existed and needed to be addressed as a way of dealing more effectively with the flooding. The World Bank and the Senegalese government funded a "Post-Disaster Needs Assessment" undertaken by the Global Facility for Disaster Reduction and Recovery (GFDRR). This assessment estimated damages and loss mainly in the Dakar area to be USD 204.5 million, and estimated that the

19 Diop (2017) p 43

20 Schaer et al (2018) p 8

21 Schaer et al (2018) p 2

22 GCF, (2016) p 8

rehabilitation and reconstructions needs would cost more than USD 163.8 million.[23] The report identified a number of priority measures, including preparing a master plan for storm-water management, and preventing and mitigating disasters by developing an urban development plan.[24]

The "Stormwater Management and Climate Change Adaptation Project" (PROGEP) was initiated in 2012 as a way of implementing the priority areas identified by the Post-Disaster Needs Assessment. This programme came to an end in 2021. Subsequently a new project (PROGEP2) was put in place to run from 2021 (or 2022?) to 2026. Both these projects are funded by the World Bank, the Nordic Development Fund, and the government of Senegal.[25]

The aim of the project is to improve "the capacity to integrate flood risks and climate resilience in urban planning through nature-based solutions and green infrastructure measures."[26]

For Senegal, managing floods is a major part of the government's Disaster Risk Reduction Framework. Senegal has a 10-year Flood Management Program (PDGI) for the 20212- 2022 period. It also has a National Adaptation Programme of Action (NAPA), produced in 2006. Building resistance to flooding is also a top priority articulated in Senegal's NDC. The NDC submitted by the government estimates that USD 2.136 billion is needed to build resilience to floods for the period 2016 – 2035. And this amount is probably an underestimate.

It should also be noted that Senegal has a high debt exposure – public debt is expected to reach 75% of GDP in 2022.[27]

2.3. Green Climate Fund

2.3.1. Basic project information

The GCF agreed to fund an Adaptation project (Senegal Integrated Urban Flood Management Project) focused on the same problem that had already received a great deal of donor focus and interventions - flooding in urban areas. It is a category A project which means it is a project "with potential significant adverse environmental and/or social risks and impacts that, individually or cumulatively, are diverse, irreversible, or

23 GFDRR et al (2014) p 5

24 Schaer et al (2018) p 10

25 Mukeredzi (2022)

26 Mukeredzi (2022)

27 IMF https://www.imf.org/en/News/Articles/2022/06/22/pr22221-senegal

unprecedented".[28]

The project proposal argues that this project will be important because it will make a shift in policy- making for flood management away from simple infrastructure development to an integrated approach that

- builds knowledge of flood risk at national and local-scale
- reduces vulnerability in existing and future urban centers
- reinforces prevention, especially for drainage infrastructure management
- tackles the difficult challenge of trans-sectorial governance [29]

At first glance there seems to be an enormous overlap between this project and the PROGEP project. However, the GCF proposal argues the GCF project "is a necessary link between local investments made in storm water drainage infrastructure and operations (for instance through PROGEP) and future regional hydrological and meteorological data production (for instance through an up-coming regional Hydromet Program).[30]

The CSO comments on the project proposal also make the comment that this project seems to be in reaction to the consequence of urban flood drainage measures which were developed as a construction mitigation effort of a highway building project started in 2006/2007.[31] In other words, it seems that this project is an attempt to deal with many of the problems that have arisen with other donor led interventions around the problem of flooding.

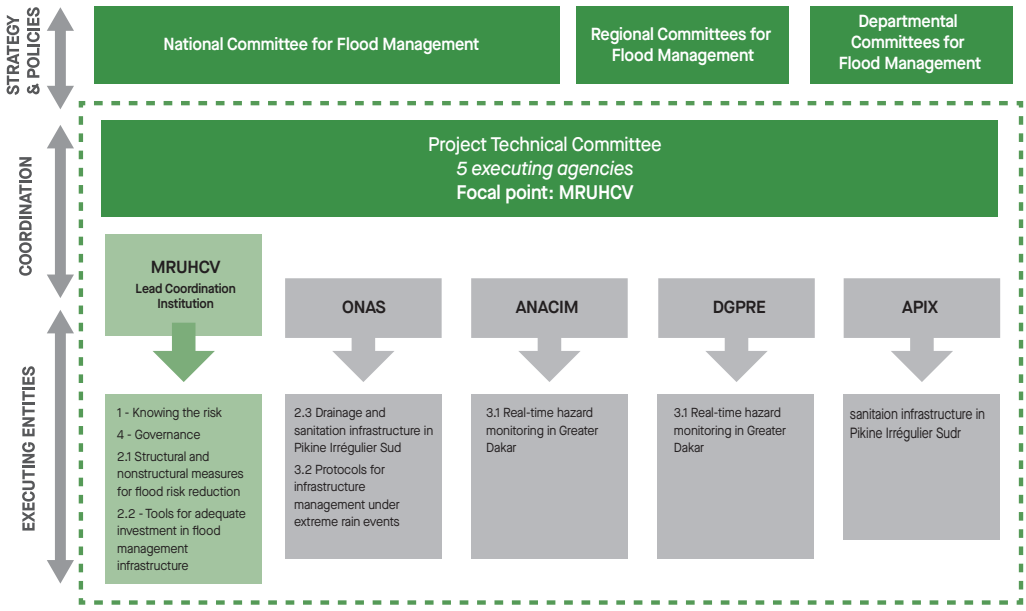
The accredited entity for implementation is AFD (Agence Française de Développement). The original five state entities that were responsible for project were:

- MRUHCV – the Ministry of Urban Renewal, Housing and Living Environment and the lead coordinating institution
- ONAS – the Senegal National Office for Sanitation
- ANACIM - the National Agency for Civil Aviation and Meteorology
- DGPRE – the Directorate for Water Resource Planning and Management
- APIX - the Investment Promotion and Large Projects Agency. This is a public company which implements major investment projects including public- private partnerships.

28 GCF (2019) p 6
29 GCF (2016)
30 GCF (2016) p 7
31 CSO (2016)

The diagram below sets out the areas of responsibility of the five entities.

Figure 01 Areas of responsibility for GCF project of five state entities



Source: GCF (2016) Funding proposal: FP021: Senegal Integrated Urban Flood Management Project

Subsequent to the presidential elections in Senegal in 2018 institutional changes meant that the responsibility for drainage management was transferred from MRUHCV to MEA – the Ministry of Water and Sanitation ("Ministère de l'Eau et de l'Assainissement).

The only part of the project that will be implemented directly by the government of Senegal is the resettlement plan. The rest of the project will be implemented through works, supply and services contracts procured by the executing authorities outlined above.

2.3.2. Project financing

It is allocated to the public financing category, with total project investment of USD 79.2 million. The financing framework is as follows:

Table 03 Senegal: financing framework for project FP021

Co-financing				
	Equity	USD 6.2 million	Government of Senegal	For the Resettlement Action Plan which is linked to the establishment of the drainage infrastructure in the Pikine area
	Loan	USD 51.8 million	AFD (French public finance institution)	Concessional loan financing used for building of the public service draining infrastructure in the Pikine Irreguller Sud area
Grant		USD 15.5 million		For the soft activities supporting shift in policy making and flood crisis management. Will set up institutional, technical, political framework for improved flood management

As can be seen, the majority of the financing is through measures which will increase debt for the Senegalese government, with only 21.1% of the financing provided through a grant.
The Senegalese government will make a contribution of 6 million from the state budget. The private sector will be involved in the construction of the drainage system through APIX.

2.3.3. Project approval and criticisms

The project was approved on 14 October 2016 for a five year period till 2021. The actual date when implementation began is 11 October 2018- thus the project has been active for four years so far.

The formal CSO comments on the proposal noted that it is a Category A project, arguing that they "believe the Board should not consider any funding proposals with high social and environmental risks".[32] Despite this concern, the project went ahead.

32 CSO (2016)

The formal CSO comments also raise concerns about the quality of engagement and consultation with local stakeholders, especially local communities; and the quality of resettlement sites and whether the needs and concerns of female headed households in particular have been addressed.[33]

The project involves relocating people and thus will result in social dislocation and upheaval.

2.3.4. Project development

The latest information on the website indicates that the project is still currently under implementation, with the estimated completion date under revision. To date, 40% of the funding has been disbursed for this project.

There are two project report (Annual Performance Reports) available on the GCF website. The last report uploaded onto the website for this project was for the 2020 year and it was uploaded on 13 September 2021.

According to the 2019 Annual Performance Report, two main activities took place during the year:

- The appointment of the Technical Assistance (TA) was finalized and awarded to the consortium SCE-Group8-SGI. This means that work on many of the components only then started at the beginning of 2020 with the issuing of tenders for various components of the work. Group8 is a UK based legal consulting firm.
- The resettlement action plan component was restructured. It was found that the actual cost of the plan was 21 million euro, rather than the original 6 million euro (USD 6.2 million). Work was begun on building on empty land. An NGO will be recruited to support APIX in implementing the resettlement plan.

Of note in the 2020 Annual Performance Report is the following:

- Only 1.5 million euro of the 6 million euro was released by the Senegalese government because of the government's budget problems during the health crisis. Additional funds were meant to be released in 2021.
- The company (SINCO) contracted to work on the storm drains and retention basis did not complete the work in the required framework. In February 2021 AFD asked APIX about the possibility of applying late fees to the company as they had not met contractual deadlines.

33 CSO (2016)

- Wastewater treatment: ONAS was initially responsible for this area of work, but it was then handed over to APIX. ARTELIA/AFID/EDE group was awarded the contract and started work in 2021.

2.4. Conclusions

This project can, with some confidence, be regarded as one which is strengthening the public sector in order to more effectively respond to the long term implications of flooding in Dakar. While it will make use of short term contracts for civil work, the overriding thrust of the project is to strengthen the ability of government in the long term to deal with the problems that climate change is exacerbating.

The GCF proposal envisages the project strengthening the role and position of MRUHCV (and since 2018, MEA), as the the main policy maker on flood management at the national scale, as well as the other identified government entities. On the face of it, this is a major advance over previous donor led projects focusing on the same problem which, according to Schaer (2018) have tended to set up or duplicate existing institutions rather than strengthening government ones.

However, there are concerns about the financing of this project. Unlike many of the other adaptation projects that we have surveyed, the co-financing component, which is the largest component of the financing at 78.9%, consists of loans and equity. As much as the loans are concessional loans, this will contribute to increasing the country's exposure to debt.

The project is now in the fifth year of implementation (although only annual reports for the first three years are available on the website). Problems have been experienced in relation to the equity portion of the budget in that the government of Senegal has faced several budget constraints, partly because of the COVID-19 pandemic and has thus not been able to disburse all the required funds. Completion of the contracts have also been delayed, partly, at least, because of the impact of the COVID-19 pandemic.

It has not been possible to make any findings in relation to decent work or the implications for tariff structures of this project.

3. Mauritius

- Project name: Accelerating the transformational shift to a low-carbon economy in the Republic of Mauritius
- Project number: FP033
- Accredited entity: UNDP
- Approved: December 2016
- Implementation started: July 2017
- Projected end date: July 2025
- GCF funding: USD 28.2 m Grant (14.7%)
- Co-financing: USD 163.1 m Grants and loans (14.7%)

3.1. Introduction

This case study was chosen because of its focus on mitigation measures and more specifically on Renewable Energy. For Small Island Developing States the focus is often on adaptation measures. In this case, however, with Mauritius importing coal and gas for the majority of its electricity needs, the focus is on mitigation. To date, renewable energy has largely been based on bagasse (sugar cane waste) and this project is meant to increase the share of solar and wind in the energy mix.

However, despite it being termed a public project, it is largely aimed at facilitating private sector involvement in the renewable energy sector – a trend which is experienced in many countries. In the words of the project, it is aimed at "overcom(ing) identified barriers to low-carbon investment"[34] , in other words, growing the renewable energy sector through market mechanisms. This matters because research has shown that when renewable energy is contracted out to the private sector through Public Private Partnerships, it has not only faced the problems that all privatization faces – price increases, falling levels of service quality and insufficient investments, it also undermines the transition to renewable energy. Research has shown the importance of maintaining energy as a public good in order to transition to renewable energy with the required ambition and speed, with sufficient investment, and in a way which reduces inequalities in service provision and provides decent jobs.[35]

34 GCF (2016) p 4

35 https://aidc.org.za/download/eskom_transformed/Eskom-Transformed-Full-Report-1.pdf/

3. 2. Background

Mauritius consists of a number of islands including Mauritius, Rodrigues, Agalega, Tromelin, Cargados Carajos and the Chagos Archipelago, including Diego Garcia and several islets around these islands.

As a Small Island Developing State, Mauritius is particularly susceptible to the impact of climate change. It is experiencing temperature rises of 1.39 degrees Celsius, and sea level rises of 5.6 mm per year – both of which are above the global average.[36] It has always been subjected to cyclones at particular times of the year, but with climate change, its exposure to increased cyclones, abnormal tidal surges, storm surges, rising sea levels and flooding is going to increase. At the same time, it is also likely to experience prolonged periods of drought.[37] The decline in rainfall is likely to impact severely on Mauritius's agricultural production, while rising sea levels, resulting in beach loss, together with the impact of extreme weather will impact negatively on Mauritius's tourism sector. These are two of the country's key economic sectors.

Mauritius is currently heavily reliant on fossil fuels (coal and oil) for energy – with 84% of its primary energy requirements being met by imported fossil fuels. While Mauritius has had a small renewable energy component to its energy mix this has fallen over the years, rather than risen. In 2014 the share of renewable energy in the total energy supply was 16%; but by 2019 it had fallen to 14%.[38] The largest source of renewables is bioenergy – specifically bagasse which is sugarcane waste, and which makes us 90% of the renewable energy supply in 2019.

In relation to electricity, Renewable Energy makes up 24% of the generation, with bioenergy the most dominant form at 14%, followed by solar at 5%, hydro and marine at 4% and wind at 1%.[39] In the electricity sector 2020 figures show that the percentage of renewables used has risen – with electricity generation from renewables at 21.7% in 2019, rising to 23.9 % in 2020.

The government is committed to reducing fossil fuel usage and increasing the use of renewable energy – and this is reflected in its Long-Term Energy Strategy 2009 – 2025 which has a target of 35% of renewable energy by 2035.[40]

The government of Mauritius has noted the difficulties of accessing financing for climate

36 https://african.business/2022/03/apo-newsfeed/mauritius-stakeholders-participate-in-capacity-building-workshop-on-preparing-bankable-projects-to-access-climate-finance/

37 https://climateknowledgeportal.worldbank.org/country/mauritius

38 IRENA

39 IRENA

40 Republic of Mauritius (2009)

change. This is both a problem of inadequate financial resources being made available, but is also a result of inadequate capacity to formulate project proposals, which means that potential funding from sources such as the GCFund are not used optimally. The process to access GCF funds is long and bureaucratic, with several rounds of consultations and review processes required.

Currently the government is spending 6.99% of total government expenditure on mitigation and adaptation measures, which represents 2.15% of GDP. But they have noted that they need to be spending at least 15% of their GDP on these measures given the major challenges facing SIDS.

Institutionally, the Ministry of Energy and Public Utilities (MEPU), is responsible for policies in relation to the renewable energy sector. The Central Electricity Board (CEB) is the parastatal responsible for generation, transmission and distribution of electricity. The CEB produces around 40% of the country's total power requirements from its 4 thermal power stations and 10 hydroelectric plants. The remaining 60% is purchased from Independent Power Producers (IPPs), who mostly use landfill gas and bagasse[41] .

In 2015, the Mauritius Renewable Energy Agency was established to oversee and promote the development of renewable energy in Mauritius.

3.3. Green Climate Fund

3.3.1. Basic project information

The project "Accelerating the Transformational Shift to a Low-Carbon Economy in the Republic of Mauritius" was approved on 15 December 2016. The focus of the project is on increasing the use of renewable energy in the energy mix, and reducing the country's reliance on fossil fuels. The GCF proposal argues that the project will allow Mauritius to reach its target of 35% renewable energy by 2025.[42]

It is a category B project, and falls in the Mitigation category. A Category B project is one that has "potential limited adverse environmental and/or social risks and impacts that, individually or cumulatively, are few, generally site-specific, largely reversible, and readily addressed through mitigation measures".[43]

The accredited entity for the project is the United Nations Development Programme (UNDP).

41 https://publicutilities.govmu.org/Pages/Energy%20Sector/EnergySector.aspx

42 GCF (2016)

43 GCF (2019)

The aim of the project is to promote investment in low-carbon development, and it has three components:

- Component 1: Institutional strengthening for renewable energy – to be implemented in the first phase (2017 – 2019)
- Component 2: Improving Grid Absorption Capacity followed by PV deployment – to be partly implemented in the first phase (2017 – 2019) and completed in the second phase (2020 – 2024) [44]
- Component 3: PV mini-grids on the Outer Island of Agalega – to be completed in the second phase (2020 – 2024).

In relation to institutional building, the stipulated aim was for the government to have in place the required legal framework and institutional capability to effectively manage the evolution and growth of the renewable energy sector. In particular, the GCF funding will assist in strengthening MARENA. Important to note, however, is that MARENA will specifically be promoting Renewable Energy IPPs among prospective investors – in other words, a privatised form of Renewable Energy.

In relation to the component on PV deployment – the focus will be on the installation of small scale PV systems for households, NGOs and public buildings. The aim is to encourage the adoption of small-scale PV through a grant which will cover approximately 27% of the upfront system and installation cost, with the balance coming from loans (AFD) or users'
own resources. Through this incentive support, the idea is that those who are currently unable to afford rooftop PV systems will be able to install them.

3.3.2. Project financing

The table below sets out the financing breakdown for the project:

Table 04 Mauritius: financing framework for project FP033

Co-financing 85.3%		
	Grant	USD 122 million
	Grant	USD 1.38 million
	Other	USD 1 million
	Other	USD 99,000
	Loan	USD 37,9 million
Grant 14.7%		USD 28,21 million

44 GCF (2016)

Thus the majority of the funding is through co-financing rather than grants, with the breakdown for the financial instruments in use for the co-financing as follows:

- Senior loans
- Subordinated loans
- Equity
- Guarantees
- Reimbursable grants

The table below reflects the breakdown of funding per component and indicates the source of the co-financing.

Table 05 Mauritius: Funding breakdown per component of the project

Component	Sub-component	GCF Financing USD millions	Co-financing	
			Source	Amount (USD millions)
1. Institutional strengthening for RE	1. Institutional strengthening of MARENA	1.1	Government of Mauritius (MEPU)	1.0
			UNDP	0.08
2. Improving grid absorp-tion capacity followed by PV deployment	1. Installation of battery energy storage system and accompanying software for grid	10.9	UNDP	1
			CEB	2
			AFD	17
	1.Smart grid	2.7	CEB	1
			AFD	1.7
	1.PV deployment	12.7	CEB	119
			AFD	19.2
3.PV mini-grids on the outer island of Agalega	1.PV mini-grids	0.81	Government of Mauritius (OIDC)	0.9
			UNDP	0.3
Total		28.21		163.18

3.3.3. Project approval

Implementation started in March 2017, and was scheduled to end in December 2024.

However, according to the GCF website, the estimated completion date is under revision. The 2020 Annual Performance Report notes the delays in the project caused by the COVID-19 pandemic.

3.3.4. Project development

In relation to institutional strengthening, the GCF funding has begun the process of building the capacity of the Mauritius Renewable Energy Agency (MARENA), with the employment and training of additional staff. The main focus of MARENA remains, however, the expansion of the renewable energy sector through private IPPs.

In 2019, 34.3 MW was connected to the grid through two IPPs and 1 MW through rooftop PV panels. The two IPPs are as follows:

- Solitude 16.3 MW park – established at Solitude near St Louis. Developed by Voltas Yellow Ltd, which is a subsidiary of the French company, Voltas Green.[45]
- Akuo-Henrietta 17 MW park – established at Henrietta. Developed by the French company, Akuo Energy through its subsidiary Akuo Indian Ocean.[46]

3.4. Conclusions

This project is aimed at promoting private sector investments in renewable energy through the establishment of Power Purchase Agreements with Independent Power Producers (IPPs). As noted above, this is problematic not only because of the implications for service delivery, and equitable access to the service, but also because it will not ensure the transition to renewable energy at the speed and ambition required. The project will strengthen MARENA, the Renewable Energy Agency. However, it will do this with the aim of establishing a context for IPPs and distributed generation.

The financing of the project is through a relatively small GCF grant (14.7% of the project finance), and co-financing through loans, equity, guarantees, and reimbursable grants. Unlike many of the other mitigation projects we surveyed, the GCF component does not include a loan component.

The Mauritius government has noted the general difficulties of accessing climate finance because of the limited amount available, but also because of the lengthy and at times bureaucratic processes that must be followed.

45 https://cdm.unfccc.int/Projects/DB/KBS_Cert1574421069.55

46 https://www.akuoenergy.com/en/akuo-indian-ocean

4. Bangladesh

- Project name: Climate Resilient Infrastructure Mainstreaming (CRIM)
- Project number: FP004
- Accredited entity: KfW
- Approved: November 2015
- Implementation started: March 2018
- Projected end date: March 2024
- GCF funding: USD 40.0 m Grant (49.4%)
- Co-financing: USD 41.0 m Grants (50.6%)

4. 1. Introduction

This project was chosen because it is one of the early projects that was approved (in 2015), and has been under implementation since 2018. This allows for some perspective on how effective the implementation has been and some of the successes and failures.
It is focused on the local government and the built environment and making this built environment more resilient to cyclones that hit the area.

4. 2. Background

Bangladesh is particularly vulnerable to the impact of climate change – it is a flat, low-lying country situated in a delta. It ranks 7th on the Global Climate Risk Index 2021 of countries hardest hit by the impact of extreme weather for the period 2000 - 2019 [47] , and it is estimated that by 2050 one out of every seven Bangladeshis will experience displacement as a result of climate related disasters.[48] It experiences extreme weather events such as severe cyclones and floods, storm surges, salinity intrusion, erosion, and landslides. These extreme weather events wreck havoc in both urban and rural areas, particularly in coastal areas. On average, about a quarter of the land mass is covered in flood waters every year. Severe flooding every 4 – 5 years covers about 60% of the

47 Eckstein et al (2021)
48 UNDP (2021)

land mass.[49] With an anticipated rise in sea levels of between 32 – 88 cms by 2050, it is estimated that 17% of the land mass of the country will be inundated and 20 million people will be affected.[50]

Urbanisation in Bangladesh is increasing for a range of reasons – among them the impact of climate change. But this is putting pressure on the urban environment, particularly for the coastal cities. The result is increasing numbers of people living in informal settlements, without access to basic services, and with low resilience to cope with the consequences of climate change. It is the poor who are most vulnerable and at risk from the impact of climate change. Some of the negative impacts on the urban infrastructure include road pavements which are under stress from lengthy periods of heat waves and intense precipitation; overloaded drainage systems from intense rain; more severe tidal surges and floods may erode road bases and bridge supports; higher wind speeds of storms and cyclones impact on building structures.

Over the last 50 years, Bangladesh has embarked on a number of programs, supported by the World Bank among others, to build resilience against extreme weather events. These programmes have involved investing in disaster risk management, and have had some success in reducing fatalities from these events. The number of cyclone shelters has steadily increased over the years. However, there are still not enough in some areas. In 2020, existing shelters could accommodate 5.1 million people, which left another 15 million without adequate storm shelter. This project aims to fill this gap, while at the same time, focusing on institutional development for more far-reaching changes to building resilience.

Some of the urban interventions that are being planned include

Bangladesh developed a plan responding to Climate Change, the Climate Change Strategy and Action Plan (BCCSAP) in 2009.

4.3. Green Climate Fund

4.3.1. Basic project information

The project (Climate Resilience Infrastructure Mainstreaming (CRIM)), is aimed at integrating adaptation measures into decision-making around infrastructure planning, through the Local Government Engineering Department (LGED). The LGED is the technical arm of the Ministry of Local Government, Rural Development and Cooperatives and is responsible for infrastructure development throughout the country. In effect, this

49 https://reliefweb.int/report/bangladesh/bangladesh-disaster-risk-and-climate-resilience-program
50 https://ddnews.gov.in/international/rising-sea-level-submerge-17-percent-bangladesh-2050

means that it is responsible for more than 10% of all annual public investments – mainly roads, public buildings and drainages. A Centre of Excellence - Climate Resilient Local Infrastructure Centre (CReLIC) is being established in the LGED. This Centre is meant to mainstream climate resilience into all activities undertaken by LGED, and act as a catalyst for introduction of a climate resilient perspectives into government work more broadly.[51]

Institutional Development Consultants have been brought in to establish CReLIC. The consultants are a consortium – AMBERO-COMO-TTT.

The project is aimed in particular at building resilience to the impact of cyclones and flooding in both urban and rural areas. Three coastal districts are the focus of this project – Bhola, Barguna and Satkhira.

In the rural areas, the plan is to build 45 new cyclone shelters, and renovate 20 existing shelters. The plan is for these shelters to be used as primary schools when not needed as shelters. In addition road access to these areas will be improved.

In Satkhira, there are plans for various urban projects to improve climate resilience – including improvements to drainage, flood protection, sanitation, water supply, and transport.

The project is also supposed to create 1,700 full-time jobs, as well as provide education support to a large number of children (by making available school buildings) and reduce local transport costs (by improving road infrastructure).

4.3.2. Project financing

All of the financing for this project takes the form of grants. Nearly 50% (49.4%) comes from a grant from the GCF, while 50.6% comes from grants from the German government (Kreditanstalt für Wiederaufbau (KfW)) and the government of Bangladesh.

The project proposal notes that the decision was taken to go the route of grant funding because of the recognition that "the focus of the project is the development of institutional capacities with no immediate economic return."

4.3.3. Project approval

The project was approved in November 2015 with KfW as the accredited entity. Implementation as started on 15 March 2018, and is meant to conclude in March 2024.

51 https://crim-lged.org/crelic/crelic_profile/crelic.profile.php

4.3.4. Project development

As so many projects were, implementation was delayed because of COVID. However, the Centre for Excellence has been established with staff seconded to this Centre from the LGED.

4. 4. Conclusion

This project meets the criteria for a project which is aimed at building/strengthening public services as a vital component of responding to the climate crisis. A major component of the project is focused on institutional development through strengthening of the Local Government Engineering Department, which is responsible for infrastructure development throughout the country. The government has committed to ensure that the operational budget of the Centre for Excellence, set up within the LGED as part of the project, will continue to be funded out of the national budget in the future. The government sees the establishment of the Centre for Excellence within the LGED as a "paradigm shift" in that it is a move away from ad-hoc project-based approaches towards a systematic integration of climate change adaptation into infrastructure planning, implementation and maintenance. It will in effect, institutionalize the knowledge and experience gained which is important for strengthening the public sector.

This project is also interesting because it entirely funded through grants – the GCF grant is almost half of the total funding (49.4%), with the co-financing grants provided by KfW and the government of Bangladesh.

It is a fairly unusual case in that there are not other examples of climate change units being established within government structures responsible for infrastructural development. As such it is a good example of what is possible.

In terms of providing decent jobs – it is estimated that the project will provide the equivalent of 1,750 full-time unskilled jobs locally through the construction of the infrastructure. It is not clear what the impact on tariffs of this project will be.

5. Fiji

- Project name: Fiji Urban Water Supply and Wastewater Management Project
- Project number: FP008
- Accredited entity: Asian Development Bank
- Approved: November 2015
- Implementation started: January 2018
- Projected end date: January 2026
- GCF funding: USD 31.0 m Grant (7.7%)
- Co-financing: USD 374.1 m Loans (92.3%)

5.1. Introduction

This case study was chosen as an example of adaptation in a context of high country debt, making it difficult for the government to finance the needed improvements and development of the water and sewerage system. The project is focused on both improving access to water, particularly around the capital city, Suva City, as well as extending sewerage coverage (currently sewerage infrastructure only covers about 36% of the Suva City area). The existing water system is under considerable stress from both increasing urbanization, as well as the impact of climate change (droughts and heavy rain), which results in frequent service interruptions.
This project was also chosen because Fiji, as a Small Island State, is a country highly vulnerable to climate change.[52]

5.2. Background

Fiji is an archipelago of about 330 islands. The majority of the population (87%) live on two of the major islands – Viti Levu and Vanua Levu.[53] The capital city, Suva, is on Viti Levu. The islands are regularly battered by cyclones (between 2010 and 2022 it was hit by 20 cyclones many of which caused lasting damage to Fiji's infrastructure), faces increased inland floods, while at times experiencing a decrease in the water supply that is available in catchments and the water table, which then impacts on the water that is

52 https://www.bbc.com/news/world-asia-61774473

53 http://www.undp.org.fj

available to. A major problem the country faces is the increase in salinity intrusion in the freshwater system.
At the same time it is experiencing increasing urbanization with estimates indicating that by 2030, two in three Fijans will live in the urban areas. There are large areas of informal settlements, where people don't have access to proper potable water. There is insufficient urban infrastructure in place for the increasing number of people living there.

The Climate Change and International Cooperation Division (CCICD) is located in the Ministry of Economy and is the government agency responsible for dealing with climate change policy issues in Fiji and is guided by the Climate Change Act, and the National Climate Change Policy. A Climate Change Act was enacted in 2021. In terms of this Act, the government must develop and implement a climate change policy until 2030 and sets a target of net zero by 2050.[54]

One of the work streams within the CCICD deals with climate finance and is the National Designated Authority for the GCF Approximately 40% of what Fiji spends on climate projects comes from international funders, with the rest coming from the Fijian government.[55] Fiji has a National Climate Finance Strategy which shapes the climate finance that Fiji applies for, including financing from the GCF. This strategy was developed with the assistance of the World Resources Institute (WRI). The strategy has identified how much money the country will need for its climate goals and sets out a strategy for accessing this funding.

It identifies 12 economic sector that the government argues needs projects to be funded and implemented by 2030 in order to cope with climate change. Water and Sanitation is one of these areas. Annually, FJ$162.8 million is allocated to the water and sanitation sector, with FJ$72.1 million coming from the GCFund Project.[56]

5.3. Green Climate Fund

5.3.1. Basic project information

The GCF agreed to fund Project FP008 *(Fiji Urban Water Supply and Wastewater Management Project).*
For the water system, the project will result in the design and construction of a new water intake, a pumping station, wastewater treatment plant, clear water reservoir and a new pipeline. This will help prevent salinity in the water because the water will be

54 https://climate-laws.org/geographies/fiji/laws/climate-change-act-2021

55 https://www.greenbiz.com/article/what-world-can-learn-fijis-national-climate-strategy

56 https://fijiclimatechangeportal.gov.fj/wp-content/uploads/2022/05/Fijis-National-Climate-Finance-Strategy.pdf

accessed further upstream. For the sewerage system, coverage will be increased and new treatment facilities added. The infrastructure will be developed on the basis of Design-Build Operate (DBO). DBO is a form of Public Private Partnership which a private company or consortium is given a contract for a set period to design, construct and then operate the infrastructure on the basis of a fixed fee that the private company receives from the government.

The project does have a component of institutional strengthening – particularly of the Water Authority of Fiji (WAF)[57], but with the ultimate aim of fully corporatizing what is already a commercialized entity. WAF took over water and sanitation services from the water and sewerage department in 2010. It is currently funded by government grants with revenue collected being paid into a consolidated fund. The government determines the tariff structure directly. With the funding from the GCF, the plan is to introduce tariff reform, implement a water demand management programme, and strengthen the financial autonomy of the entity. This raises serious concerns around the structure of tariffs for households going forward and the potential for price rises.

5.3.2. Project financing

Fiji already has considerable debt as a country, making it even more difficult for the government to fund vital adaptation projects or borrow further.
Financing for the project consists of a small GCF grant (7.7% of the total); co-financing through loans from ADB (30% of total funding), the European Investment Bank (18% of total funding); and a contribution from the government Fiji (38% of the total funding).
The table below reflects the financing:

Table 06 Fiji: financing framework for project FP008

Co-financing				
	Loan	USD 667.70 million	ADB	This will help finance the infrastructure
	Loan	USD 38 million	EIB	This will help finance the infrastructure
	Government contribution	USD 85.26 million	Government of Fiji	This will finance taxes and duties, land acquisition, operation and maintenance costs for the DBO contracts and ecosystem conservation activities
Grant	GCF	USD 31.04 million		This will finance the cost of adapation measures

57 https://waterauthority.com.fj

The Asian Development Bank (ADB) is the accredited entity.

5.3.3. Project approval

The project was approved in 2015 for a seven year period, but implementation only began in January 2018.

5.3.4. Project development

This project has been under development since 2018. In April 2019, the ADB awarded the contract for the Rewa River Water Supply Scheme to Sinohydro HDEC JV. This is despite Sinohydro having a dubious track record and being banned from receiving contracts as a result of an office of integrity investigation into corruption with the African Development Bank for three years from 2017.

Sinohydro planned to use foreign labour to complete the project, resulting in 2,900 Fijian workers with long standing contracts with the WAF being impacted and widespread job losses. Some of these workers were employed for over 10 years. During the ADB annual meeting in Fiji in May 2019, Fiji unions organized a peaceful demonstration to protest the mass job losses, deep flaws in this investment model and the specific decision by the ADB to award the contract to this dubious company. The permit for the demonstration was denied and the Fiji government undertook a widespread crackdown on trade unions. This resulted in 25 workers from WAF being arrested along with leaders of the Fiji trade union movement. The case is still in court, with the case anticipated to be held next year only.

5.4. Conclusion

It is clear that this project does not meet the criteria for a project that strengthens the public sector so that it is better able to deliver universal quality public services in a climate resilient way. The establishment of WAF as a commercialized entity resulted in the undermining of the position of workers and trade unions. This situation is unlikely to be improved as WAF is prepared for full corporatization.

This project runs the risk of further weakening the ability of the public sector to meet the development needs of the country, particularly in the context of the crisis created by climate change.
The financing is largely loan based with loans from ADB and the European Investment Bank, which will have negative impacts on a country already highly indebted.

The project has undermined, rather than strengthened decent work, hundreds of workers loosing their employment and the heightening of trade union repression.

6. Overall Conclusion

As noted in the introduction, it is difficult to say definitively, on the basis of a broad sweep of cases, to what extent GCF funding is facilitating the strengthening of the public sector and of public service delivery, particularly given the neoliberal context that the GCF operates in. However, based on our research, it is clear that on the whole mitigation projects, which are regarded as 'bankable' projects, are largely designed to bring in the private sector to deliver services like electricity and transport.

On the other hand, the adaptation projects are more likely to be focused on public sector delivery. This is partly a reflection of the fact that projects in the water sector, in strengthening urban infrastructure to be climate resilient, and in local government are not 'bankable' projects and therefore not attractive to the private sector.

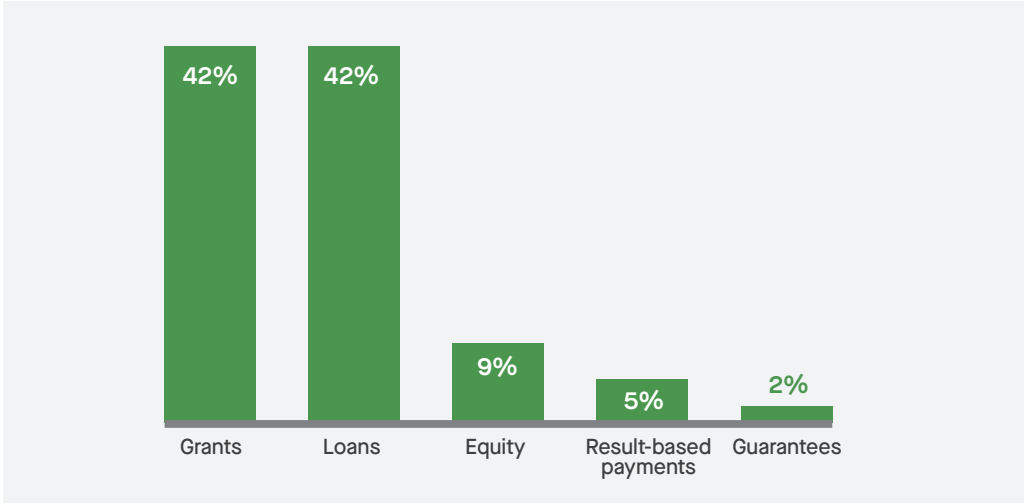
Based on the limited number of case studies that were investigated in some detail, it does seem that projects that meet the following criteria are more likely to take a public goods approach and focus on strengthening the capacity and resources of the public sector:

6.1. Financing the project:

Projects where most, if not all funding, is grant based (which is partly a recognition by funders that adaptation projects don't generate returns for the private sector) are more likely to be strongly orientated towards strengthening public sector delivery. This was the case in Bangladesh, for instance, where all financing was grant based, with 49.4% coming from a grant from the GCF and 50.6% from grants from KfW and the government of Bangladesh. Adaptation projects generally do not make attractive commercial returns for private companies, with the result that these projects are more likely to have more grant-based financing.

The level of grant financing in the Bangladesh project is, however, not common. Currently 42% or less than half of total the total funding amount is via grants, with the rest via loans, equity, results-based payments and guarantees. Financing projects in this way increases the debt burden for countries many of which are already facing severe debt repayment crises. Fiji, for instance, is a highly indebted country, but only 7.7% of financing is being provided through grants.

Figure 02 Funding amount by financial instrument



Source: Green Climate Fund (https://www.greenclimate.fund/projects/dashboard)

6.2. Strengthening public sector institutions:

Projects with a strong public sector orientation are more likely to have an explicit component on strengthening public services built into the project from the beginning. This was the case for both Senegal and Bangladesh. In Senegal the focus was on strengthening the Ministry of Water and Sanitation (MEA) to deal long-term with the problem of flooding in Dakar, Senegal. In Bangladesh, a major focus of the project is the establishment of a state entity –the Climate Resilient Local Infrastructure Centre (CReLIC) – within the Local Government Engineering Department (LGED). This Centre of Excellence will mainstream climate resilience into all activities undertaken by LGED.

Research into attempts to deal with the perennial problem of flooding in Dakar, Senegal has shown that frequently external funders can undermine public sector institutions in the way that they choose to administer the finances. Schaer (2018) has shown that external aid funds projects often set up parallel structures to oversee the project, which are then disbanded when the immediate project is finished, or continue to exist, but in parallel to state institutions. These parallel structures do nothing to strengthen the public sector, but actually have the effect of weakening existing structures. It is therefore important that projects are explicitly aimed at strengthening existing state structures. This then strengthens the capacity of the public sector to address the climate change challenges as well as ensuring ongoing sustainability.

6.3. Types of contracts involved:

Those projects that emphasised the building and strengthening of public sector institutions and entities tended to make use of procurement type contracts or short term contracts for infrastructure development. Those projects were there was either not much emphasis on strengthening the public sector, or public entities were going to be corporatized, tended to have privatisation type contracts in place with the private sector playing a much bigger role in infrastructure development.

For instance, both Senegal and Bangladesh, the contracts involved short-term private sector contracts to build infrastructure. In both Mauritius and Fiji, however, the emphasis is on long-term private sector contracts where they not only construct the infrastructure but also operate (and profit off) the service into the long term. In Mauritius the amount of Renewable Energy in the grid will be increased through bringing in Independent Power Producers (IPPs); while in Fiji, infrastructure will be built on the basis of Design-Build-Operate (DBO) contracts.

6.4. Decent work

This criteria was very difficult to assess, with only Bangladesh making direct reference to job creation as part of its motivation for the project. It plans to create the equivalent of 1,750 full-time unskilled jobs locally through the construction of the infrastructure. The extent to which these, and jobs created in other projects, are decent jobs will need to be assessed going forward through research in the field.

In the case of Fiji, it is clear, however, that the GCF project undermined jobs, as well as the trade unions which are so essential in protecting workers' rights and interests.

This is an area of ongoing engagement with the public sector trade unions in each of the countries. Clearly , to respond to the magnitude and increasing shocks of climate crisis on communities in the global south, much greater investments in frontline public sector workers are required...

6.5. Tariff implications

This is an important criteria as the tariff structure that accompanies the improvement and expansion of public services can play an important role in shaping how accessible those public services are to those who are most in need. Unfortunately few of the projects include this level of detail in the project, although in Fiji the plans do talk about the need for tariff reforms. What this will entail is unclear.

As with decent work, this is an area that needs ongoing assessment and engagement with the public sector affiliates in the field.

6.6. Conclusion

Much of the debate on CF revolve around the insufficient amounts being made available; the lack of disbursement of even these limited amounts; and the over-emphasis on mitigation projects, which are more bankable, as opposed to adaptation projects. What is generally missing from the debate is an analysis which centers the vital importance of public services, and the critical frontline workers that communities need, as public goods which are not open to privatization, as the key component in effectively, sustainably and justly responding to climate change.

As part of advocating for an approach to Climate Change Financing that places at its centre the strengthening of Universal Quality Public Services, it is important that there is ongoing evaluation, assessment and advocacy work around Green Climate Fund projects. This is important so that there can be ongoing advocacy work around a public goods approach, ongoing assessment of funded projects and the extent to which they strengthen the public sector.

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2022