



After the Paris Agreement, the debt deluge

Why lending for climate drives debt distress

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Developing countries — especially least developed countries (LDCs) and small island developing states (SIDS) — face huge challenges in financing their current climate and nature needs. The borrowing space of LDCs and SIDS is already significantly constrained by debt, and the 70% of climate finance provided as loans to developing countries is driving further debt distress. Now almost mid-way through the process of agreeing the new collective quantified goal (NCQG) for climate finance mobilisation post-2025, this analysis highlights why it is time to urgently reverse the balance between grants and loans. It highlights why grants must be at least 70% of climate finance for LDCs and SIDS through debt swaps for climate and nature action, climate-related budget support and new reallocated Special Drawing Rights from the IMF for climate action.

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Summary

Context

Developing countries face huge challenges in financing their current climate and nature needs. The supply of climate finance is far lower than the need, and has been falling short of global commitments. Significantly, the Paris Agreement's target of US\$100 billion a year by 2020 for developed countries was not achieved (US\$83.3 billion was mobilised in 2020).¹

This is leading to a failure to achieve sufficient progress in mitigating the causes of climate change and in adapting to climate impacts, including tackling loss and damage.

The struggles of access to finance are the most pronounced in the least developed countries (LDCs) and small island developing states (SIDS). Across these countries, governments struggle with financing their current climate and nature needs while keeping their external debt levels sustainable.

While external debt levels have been rising over the last decade, they increased significantly in the last few years due to the global COVID-19 pandemic and the global food and energy price shocks in 2022 following Russia's war in Ukraine. The IMF reported that 60% of low-income countries were at high risk of, or already in, debt distress even before 2022.²

Despite this, more than 70% of climate finance is still being provided as loans,¹ and often not even on concessional terms.³

These loans are adding to the growing post-COVID-19 debt crisis. There is a limit to the volume of loans developing countries can absorb before their debt becomes unaffordable and economically destabilising. Meanwhile, the economic effects of climate change are increasing, which in turn decreases the debt-carrying capacity of countries. These impacts are magnified if the much-needed adaptation measures are not implemented to shield countries and communities.

Almost mid-way through the process of agreeing the new collective quantified goal (NCQG) for climate finance mobilisation post-2025, this analysis highlights the need for rethinking how climate finance support is provided, while highlighting that not providing this finance has huge consequences, as countries need to adapt their economies to climate change urgently. This analysis seeks to improve our understanding of how climate finance is being delivered. We propose a set of recommendations for climate finance stakeholders to

learn from past experience of climate finance delivery and to chart more realistic and feasible ways forward with regard to the conditions and characteristics of the new goal, and climate finance mobilisation and delivery more broadly.

Methodology and objectives

This paper presents an illustrative analysis based on publicly available datasets of the borrowing space, as compared to the sustainable borrowing thresholds calculated under the joint World Bank–IMF debt sustainability framework (DSF) and the climate adaptation finance needs for 24 LDCs and 9 SIDS. LDCs and SIDS are selected as they are the most climate vulnerable countries. The 24 LDCs and 9 SIDS are selected because of the availability of adaptation cost data in their nationally determined contributions (NDCs).

The calculations presented in this analysis are estimates. In understanding the implications for a particular country, nationally conducted calculations on the debt status and adaptation needs of that country based on internal data would provide a more precise and detailed insight into the situation of that country.

The review is carried out to determine the extent to which these countries have the borrowing space to take on more loans to finance their climate adaptation needs. For illustrative purposes, this analysis assumes that the full amount of available borrowing space is used only to finance the NDC adaptation need, and not for other public purposes like other elements of the Sustainable Development Goals (SDGs) or regular government spending. In reality, countries have multiple policy priorities to support and would need to use the borrowing space across those. Therefore, climate would receive only a small proportion of the space. Over the past decade borrowing has risen faster than economic growth, thereby consuming borrowing space, and we see no reason to expect that this will change given the major challenges LDCs and SIDS are facing in addition to the climate challenge, while debt levels are already elevated.

This analysis shows that even if we assume climate adaptation spending is the sole top priority that receives all new funds from borrowing, this would still be largely insufficient to support adaptation needs in most countries, particularly as many are near or beyond their debt ceilings, and the climate and nature

impacts only threaten to worsen their positions. This is because international climate finance is available predominately as loans that add to the debt burdens and thus reduce the fiscal space countries have to spend on adaptation and respond to disaster events. Furthermore, future economic damage from climate changes will reduce productivity and cause high loss and damage costs, which will also significantly impact debt burdens, and which are currently rarely included in debt sustainability assessments.⁴

An urgent redesign of the international climate financial architecture is needed to ensure it provides sufficient support for climate and nature action. Not investing in adaptation is no longer an option.

Analysis

LDCs

The 24 LDCs report climate adaptation finance needs of over US\$200 billion in their current NDCs — which are in a continuous process of revision, meaning their associated costs are likely to increase further.

This analysis finds that in the majority of cases (for 22 out of the 24 LDCs), the climate adaptation finance needs exceed their public borrowing space and would place these countries in debt distress, according to the sustainable debt thresholds in their debt sustainability assessments by the IMF and World Bank.

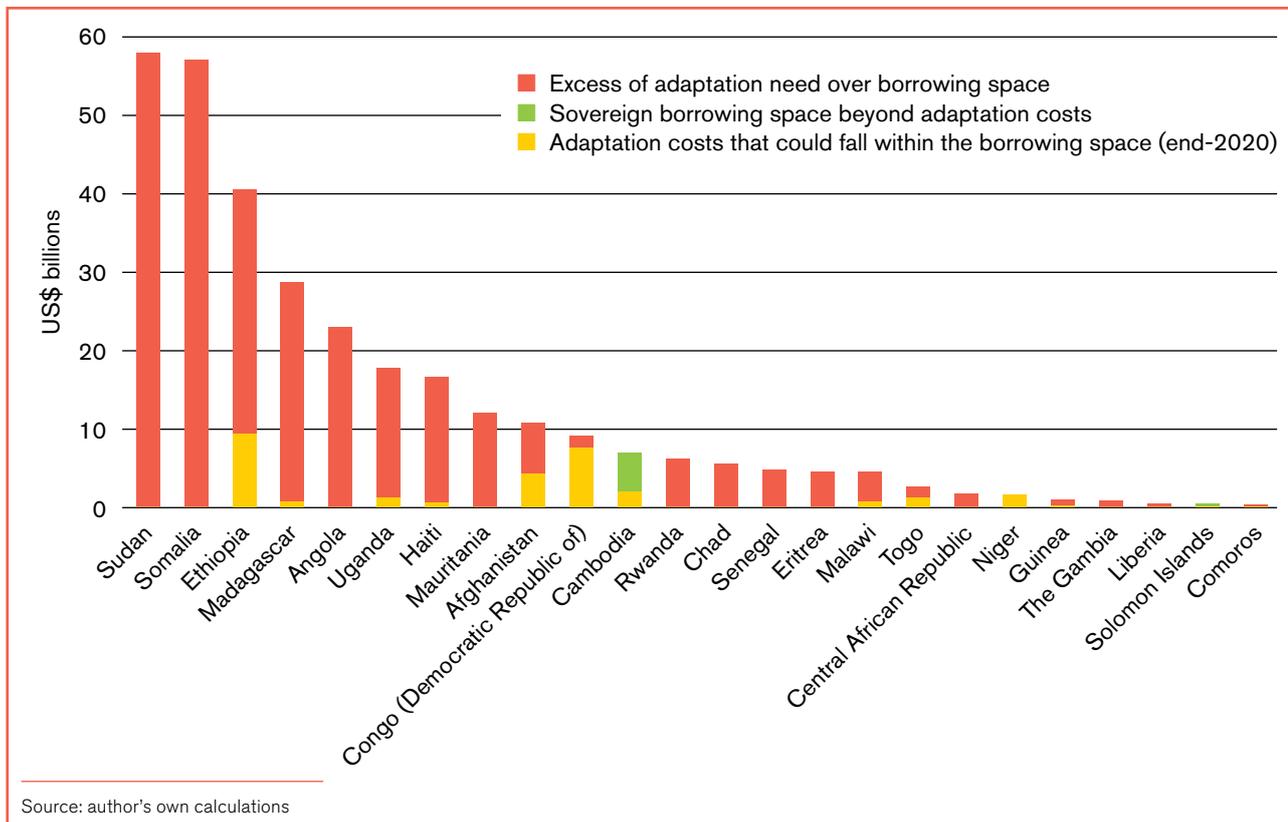
Based on 2020 debt data (the most recent available, but which underestimates current debt levels), the maximum that could be financed by public debt issuance (ie loans) across these 24 LDCs is US\$27.5 billion. The remainder — US\$182.4 billion (86.9%) — would need to be financed via other means.

In relation to the current and historic trend of providing 70% of climate finance as loans, this would represent 13.1% that could be sustainably absorbed, still leaving 56.9% of the potential loan offers above the sustainable debt threshold. However, it should be highlighted that as well as issues of the proportion of finance flowing as loans via other instruments, the volume of finance being provided for adaptation is far lower than the quantity needed.

The remaining gap would need to be financed through, for example, other sources of domestic public finance, international support through grant-based budget support and debt relief, philanthropists, or by finance provided by the private sector (noting that private sector finance has thus far been very low, and is unlikely to support adaptation substantially in the near future given the public nature of the majority of adaptation needs).

Figure 1 shows a breakdown of the 24 LDCs' sovereign borrowing space and the excess of adaptation needs over the borrowing space where applicable — which is the case for the majority of the countries.

Figure 1. Climate adaptation finance gaps by country in 24 LDCs



Source: author's own calculations

SIDS

The nine SIDS present climate adaptation finance needs of US\$33.3 billion in their NDCs, which in most cases (for six out of the nine SIDS), exceeds their public borrowing space and would put these countries in debt distress. The maximum that could be financed by public debt issuance across these nine SIDS is US\$6.2 billion. The remainder — US\$27 billion (81%) — would need to be financed via other means.

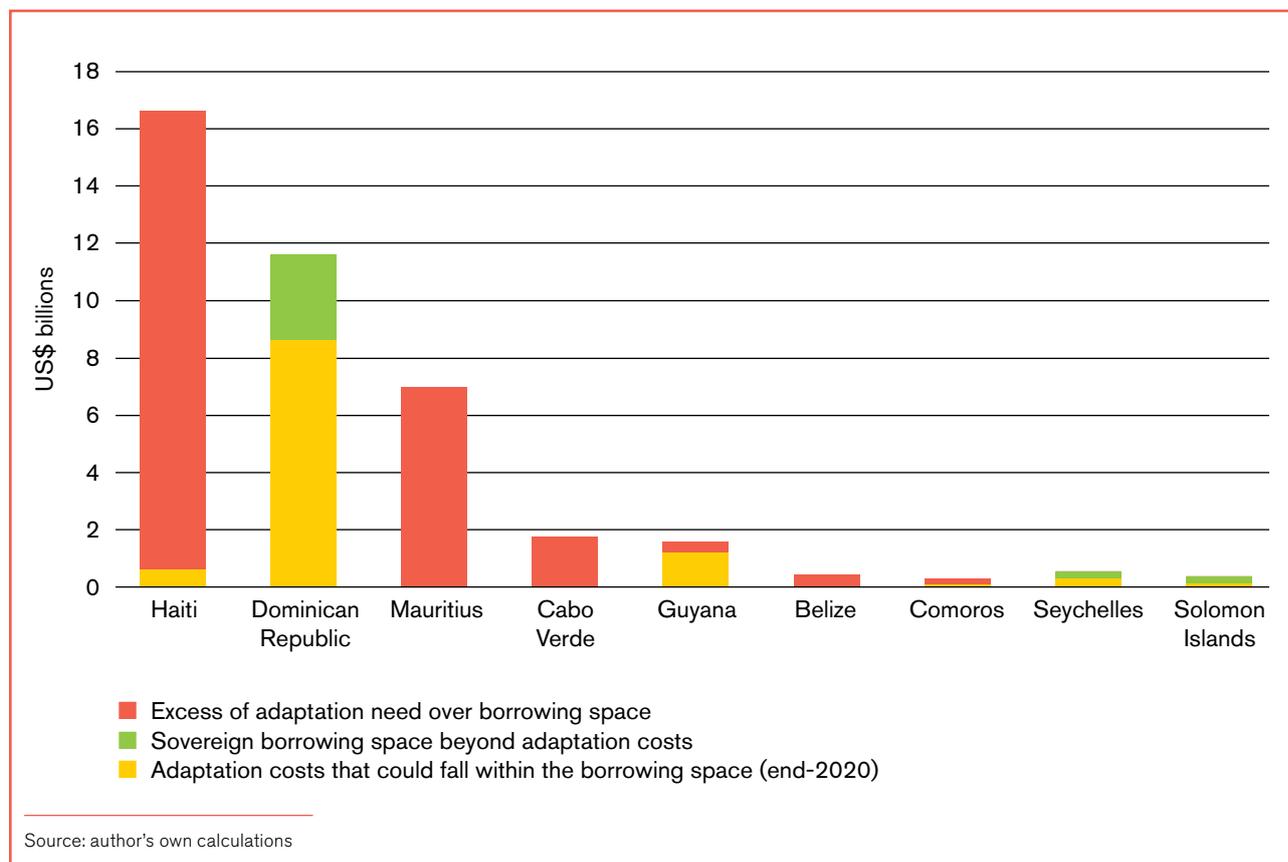
In relation to the current and historic trend of providing 70% of climate finance as loans, this would represent 17% that could be sustainably absorbed, still leaving 51% of the potential loan offers above the sustainable debt threshold. However, it should be highlighted that as well as issues of the proportion of finance flowing as loans via other instruments, the volume of finance being provided for adaptation is far lower than the quantity needed.

The remaining gap would need to be financed through, for example, other sources of domestic public finance, international support through grant-based budget support and debt relief, philanthropy, or by finance provided by the private sector.

It is evident that climate finance support beyond loans to finance adaptation is needed, and that grant-based instruments to finance the climate and nature needs of LDCs and SIDS would ensure economic sustainability.

Whilst this presents a static picture, this may not change in a dynamic context over time, as climate adaptation activities generally do not provide the immediate financial returns required for loan payback and therefore do not relieve debt sustainability pressures over the short and medium term. Meanwhile, adaptation investments increase the economic resilience over the medium and long term, and therefore a more favourable GDP trajectory, which would improve the debt sustainability situation of the country and its future capacity to borrow. However, for the larger part, the (future) economic consequences of climate change that adaptation investments mitigate are not captured in current debt sustainability analyses (ie debt sustainability analyses assume that this damage will not occur and therefore reflect an overoptimistic debt sustainability assessment for climate-vulnerable countries). Hence, the net effect of borrowing for climate adaptation on debt sustainability assessment will be neutral at best, and unfortunately will not improve current debt sustainability outcomes under the current debt sustainability methodology.

Figure 2. Climate adaptation finance gaps by country in nine SIDS



Approaches to improve the system

In the current global conditions, the focus of climate finance also needs a shift towards the provision of targeted support, including, as required, debt restructuring and grant-based climate-related budget support instead of loans. Without this, there will be an ongoing failure to mobilise sufficient finance for climate action. Failure to invest will come at a high price in terms of output losses, which will further impair debt sustainability. Delays in addressing debt sustainability issues are associated with protracted recessions, deteriorating terms of trade, rising inflation, reduced spending on social safety nets, public health, and education, which have disproportionate impacts on the poorest and most marginalised groups.

There is a pressing need for significantly increased international grant financing. The current global context, including the impacts of the pandemic and the global food and energy price shocks, is putting downward pressure on climate finance flows and overseas development assistance more broadly.

In the face of these challenges, climate finance providers need to support innovative financing instruments to try and fill the gaps. These should combine different sources and types of funds for more context-specific and fit-for-purpose functions, such as large-scale debt restructuring that specifically aims to achieve climate and nature outcomes, in combination with current unused and unissued Special Drawing Rights (SDRs) channelling towards climate goals.⁵ These instruments must also be channelled through climate-based budget support.

This would play a key role in linking debt, climate and nature. Such instruments are essential in contributing to increased climate financing for LDCs and SIDS — countries that are facing high climate finance needs and limited borrowing capacity — and could be economically feasible under the right circumstances according to a recent IMF paper.⁵³

This would avoid the need for high transaction costs associated with off-budget climate projects by instead using on-budget higher-volume programmatic-based reforms. Concerns about effective fiduciary management could be addressed through support for public financial management (PFM), which needs to be recognised as a key tool in the move towards climate resilience.

Recommendations

For strengthening climate finance delivery, this analysis recommends aligning debt sustainability with climate and nature action through:

- Strengthening frameworks by integrating climate into debt sustainability analysis, supporting the

development of green national financing and debt management frameworks, and ensuring alignment of climate and nature with other cross-cutting priorities

- Increasing resources for climate action, primarily as grant financing where possible, and through alternative and innovative mechanisms more broadly, including through:
 - Mobilising existing debt stocks to support climate and nature action to address high debt burdens and free up more fiscal space
 - Climate-based budget support to foster better alignment of support with country policies and reduce the burden of multiple, fragmented aid projects.
 - Investment in public financial management to support climate financing as a vital investment for climate resilience. Supporting finance to flow through national budgets will also help to strengthen national systems for inclusive and transparent governance that support long-term climate and economic sustainability and the achievement of the broader SDGs.
 - Building in climate-resilient debt clauses to ensure context-relevant mechanisms that are suited to their environment (ie climate-vulnerable countries) by automatically deferring debt service in response to major climate shocks, natural disasters or other major economic events.
 - Rechannelling unused SDRs to climate action or even issuing new SDRs diverted to climate action, for countries that face climate change as an externality.
 - Exploring approaches to improve private sector engagement and mobilisation.

This analysis proposes that the following considerations be reflected in the development of the terms of a NCQG for climate finance mobilisation:

- The need for a significant step-up in grant and innovative grant-based mechanisms. Climate finance should not create debt sustainability problems
- The need for significant improvements in access to finance
- The scope of climate finance needs to include adaptation, mitigation and loss and damage components
- Climate finance provision needs to ensure a scale of mobilisation targets that adequately reflects the true costs of climate action in countries, including for adaptation, mitigation and loss and damage
- The need for improved accountability and reporting to support climate and debt management

Introduction

1

1.1 Finance for climate change

Developing countries face huge challenges in financing their current climate and nature needs. The supply of climate finance is far lower than the demand. Many NDCs set out needs that are far greater than current domestic and international financing flows. An impact of inadequate financing is a failure to achieve sufficient progress in mitigating the causes of climate change and in adapting to climate impacts, including dealing with losses and damages. The Intergovernmental Panel on Climate Change (IPCC) warns that unless warming is maintained below 1.5 degrees, and gives less than eight years now to achieve a path deviation sufficient to keep within this limit, the world will face unpredictable and unprecedented climate impacts.⁶

As well as issues of quantity and scale, there are major issues relating to the access to and quality of finance that is delivered. Struggles to access finance are most pronounced in the LDCs, who face huge resource and capacity challenges across several fronts, and in the SIDS are also facing major challenges in the face of a constant existential threat. Across all developing countries, governments are struggling with financing their current climate and nature needs, while at the same time keeping their external debt levels fiscally sustainable.

Because of the real or perceived higher risks of lending to developing countries, and particularly to LDCs and SIDS, the cost of capital is higher for these countries. For example, LDCs spend three times more on interest repayments than developed countries, while LDCs also need to borrow in foreign currencies, raising the cost of capital when the exchange rate deteriorates, which could be climate change related itself following climate change induced balance of payment shocks.⁷

While external debt issues have been increasing over the last decade, they have become particularly exacerbated in the last few years due to the global COVID-19 pandemic and the 2022 global food and energy price surges following Russia's war in Ukraine.

The International Monetary Fund (IMF) reports that 60% of low-income countries are at high risk of or already in debt distress.² The IMF is also warning of the dangers of the downward revisions to the global growth forecasts: the global economy is stalling, meaning an increasing number of countries are likely to fall into debt distress.⁸ Debt distress conditions are likely to impede a country's focus and ability to address the climate and nature crises as well as reduce poverty and support other national priorities. This creates a vicious circle as the negative economic effects of climate change materialise, reducing the debt carrying capacity of those countries.

Debt distress also impedes countries' abilities to access climate finance. For example, in addition to issues with annual average losses of around 7% of gross domestic product (GDP) from wind-related incidents and floods, the additional fallout from the global pandemic pushed Belize's debt-to-GDP ratio from 96% in 2019 to 133% by the end of 2020.⁹ This made accessing climate readiness and support funds from agencies such as the Global Environment Facility, Green Climate Fund and the Adaptation Fund event more difficult.^{10,11} Climate risks are a key factor that can not only further undermine the sovereign debt burden, but also makes the cost of borrowing more onerous.

LDCs and SIDS are among the hardest hit by climate impacts and require finance for adaptation and resilience, over mitigation — especially as despite being home to around 15% of the world's population,^{*} these countries collectively emit less than 2% of annual global greenhouse gases.^{**} However, financing adaptation does not in many cases bring immediate returns that would service loan instruments. Instead, grant-based instruments are necessary for supporting these purposes.

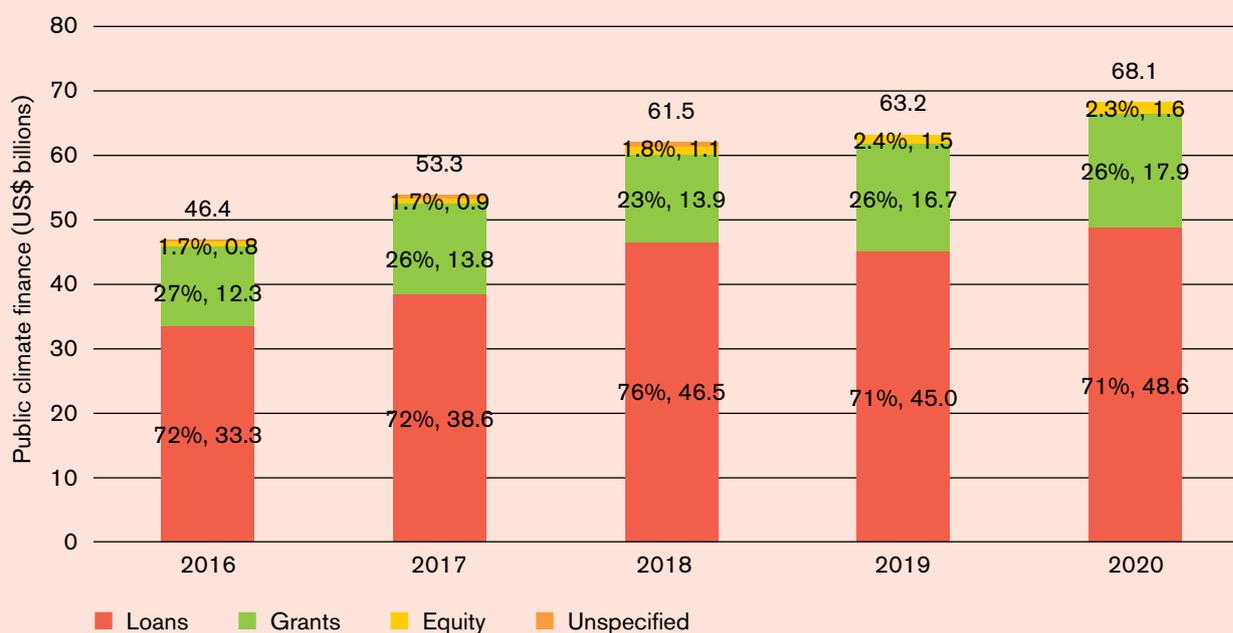
And yet, over 70% of climate finance is still being provided as loans,¹² and largely for mitigation purposes. These loans are adding to the growing post-COVID debt crisis. There is a limit to the volume of loans that developing countries can absorb before taking on more debt becomes simply unaffordable and economically destabilising.

* 1.1 billion people (around 14% of the world's population) in LDCs and 65 million people (under 1% of the world's population) in SIDS. IISD (2021) Small islands, large oceans: voices on the frontlines of climate change. <https://bit.ly/3RnENyF>

** LDCs collectively emit 1.1% of annual greenhouse gas emissions globally; SIDS collectively emit 0.57% of annual greenhouse gas emissions globally; there is an overlap between LDCs and SIDS membership. Comoros, Guinea-Bissau, Haiti, Kiribati, Sao Tomé and Príncipe, Solomon Islands, Timor-Leste and Tuvalu are all both LDCs and SIDS. LDCs and SIDS collectively emit 1.6% of annual greenhouse gas emissions globally. Data from: World Bank Open Data, Co2 emissions (kt) <https://data.worldbank.org/indicator/EN.ATM.CO2E.KT> and IISD (2021) (see endnote 10).

BOX 1. GLOBAL TRENDS IN ADAPTATION FINANCE

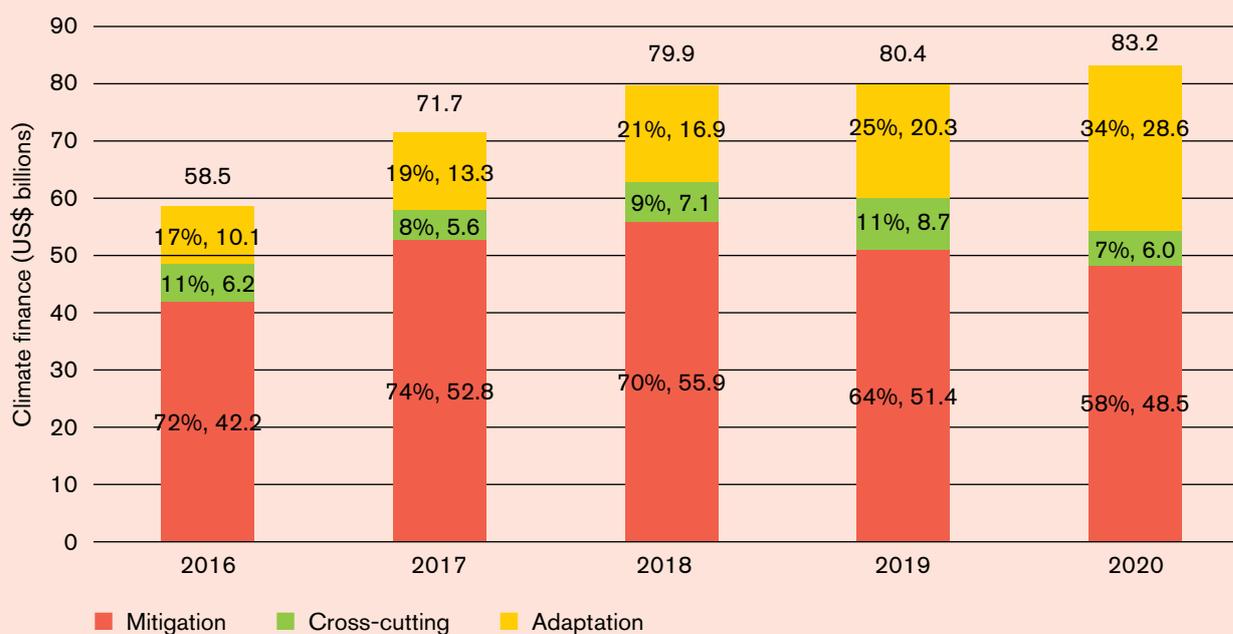
Figure 3. Instrument split of public climate finance in 2016-2020 (US\$ billion)



Source: OECD 2022¹

Data on overall climate finance flows presented in the OECD¹ 2022 report show that climate finance flows have consistently been in the form of loans. Figure 3 shows the instruments used to channel public climate finance. The overall volume of flows have increased by 47% (US\$21.7 billion) from 2016 to 2020.

Figure 4. Thematic split of climate finance provided and mobilised (US\$ billion)



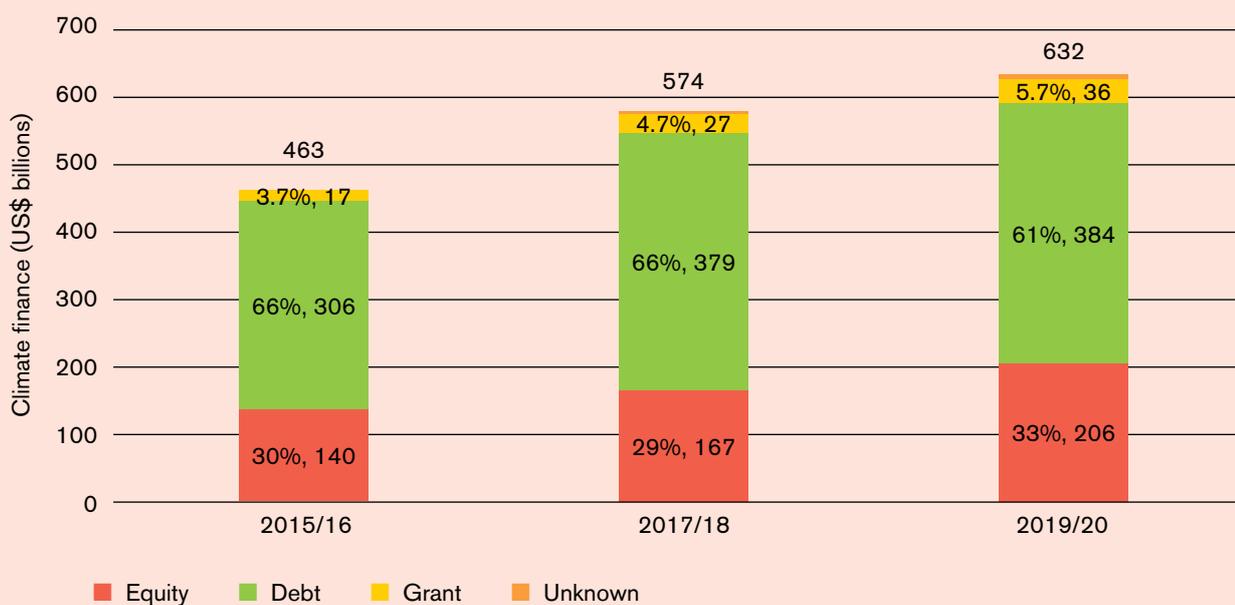
Source: OECD 2022¹

The OECD¹ 2022 report also shows that adaptation flows have increased significantly from 2016 (US\$10.1 billion) to 2020 (US\$28.6 billion) — a 183% increase. However, in absolute terms, the volume of adaptation flows are still far below mitigation flows (and far below the needs). Figure 4 shows the flows of public and private climate finance over the 2016 to 2020.

Data from the Climate Policy Initiative (CPI), which tracks domestic climate finance mobilisation as well as international flows, from both the public and private sectors, shows similar trends in adaptation finance.

The CPI reports that at least US\$384 billion (61%) of climate finance in 2019/2020 was raised as debt (loans) (Figure 5). Of this amount, at least US\$337 billion was provided at market rate (representing 53% of tracked climate finance).

Figure 5. Climate finance by instrument (US\$ billion)



Source: CPI 2021³

The CPI reports that total finance for adaptation was US\$46 billion in 2019/2020, an increase of 53% compared to US\$30 billion in 2017/2018. Despite this positive trend, total adaptation finance remains far below the scale necessary to respond to existing and future climate change. UNEP's Adaptation Gap Report⁴⁶ estimates that annual adaptation costs in developing economies will be in the range of US\$155 to US\$330 billion by 2030.

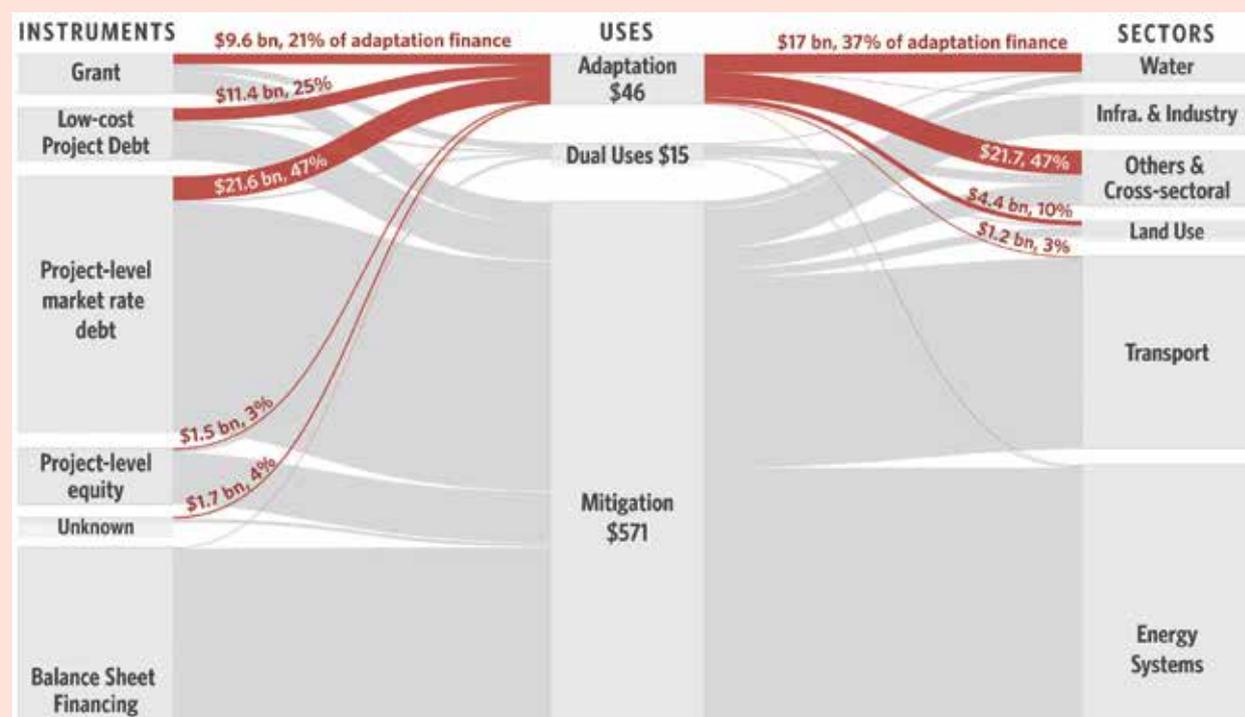
Figure 6 illustrates that 72% of the adaptation flows were channelled through debt instruments (47% as market rate debt, and 25% as low-cost debt), and only 21% was provided as grants. This presents higher debt financing for adaptation (72%) than the reported 61% of overall climate finance raised at debt.

The CPI also reports that the public sector continues to provide almost all adaptation financing, with adaptation increasingly being prioritised in development finance climate portfolios, yet adaptation finance represents just 14% of total public finance, a slight increase from 12% in 2017/2018, and just 7% of total climate finance. Multilateral development finance institutions accounted for the largest share of adaptation finance (US\$16.1 billion) closely followed by national development finance institutions (US\$15.4 billion).

Note that the data presented above from the OECD and CPI analysis is accounting for flows across all developing countries and not specifically for LDCs and SIDS.

The OECD 2022¹ reports that between 2016 and 2020, the 40 SIDS and 46 LDCs respectively represented (annually, on average) 2% (US\$1.5 billion) and 17% (US\$12.6 billion) of the total climate finance provided and mobilised. The report does not comment on the instruments used for this mobilisation.

Figure 6. Adaptation finance reported in 2019/2020 by instrument, use and sector

Source: CPI 2021³

International climate finance can be viewed as restitution, given the adaptation and resilience needs of LDCs and SIDS stem from the impacts of high greenhouse gas emissions elsewhere.¹³ In this context, and given the limits and constraints of taking on more loans in LDCs and SIDS, it becomes difficult to justify the majority of climate finance provision through loans. Providing climate loans for adaptation investments may be counterproductive for the climate agenda as new debt crises will undermine future climate investments.

This paper presents an analysis of LDC's and SIDS' debt borrowing space, sustainable borrowing levels and adaptation finance needs, to illustrate that absorbing climate finance in the form of loans is an unsustainable and unfeasible approach to the provision of climate support. It explores alternative approaches for the international climate finance system.

International grant-based financing for climate adaptation could be channelled effectively through climate-based budget support and large-scale debt restructuring linked to climate and nature outcomes. The advantage of these modalities is that they both put climate policy at the heart of economic decision making and avoid the transactions of multiple off-budget climate projects.

1.2 The new global goal on climate finance

Despite committing more than ten years ago (at the 15th United Nations Climate Change Conference, COP15, in 2009) to provide US\$100 billion per year by 2020, richer countries have failed to offer enough climate finance and very little of what has been offered is being ring-fenced for measures to adapt to climate change rather than mitigate its effects. To date, the majority (70.7%) of climate finance has been delivered in the form of loans,¹² increasing debt levels for countries that are already severely constrained.

The failure of meeting the US\$100 billion goal was tangible in the discussions at the 26th United Nations Climate Change Conference in 2021 (COP26), where developing country Parties noted developed countries failures to deliver on commitments.¹⁴

The final text of the Glasgow Climate Pact 'notes with deep regret that the goal of developed country Parties to mobilize jointly US\$100 billion per year by 2020 in the context of meaningful mitigation actions and transparency on implementation has not yet been met' and 'urges developed country Parties to

fully deliver on the US\$100 billion goal urgently and through to 2025'.¹⁴ Prior to the meeting, the UK COP26 Presidency published a Climate Finance Delivery Plan¹⁵ led by Canada and Germany, which set out an estimated trajectory of climate finance delivery from 2021 to 2025 and principles for improving the delivery of climate finance from donors. The plan suggests that the US\$100 billion target will be reached in 2023, recognises the need for a strengthened accountability and transparency system for tracking progress towards the goal, and the importance of grant-based climate finance to support the poorest and most vulnerable.¹⁶

The lack of clear definition of climate finance and general lack of accountability mechanisms have continued to be key points of contention for the US\$100 billion goal. For example, although the Climate Finance Delivery Plan estimates that the US\$100 billion will 'likely' be achieved in 2023, observers have pointed out that the Organisation of Economic Co-operation and Development (OECD) estimates upon which this new deadline is based use the 'most generous interpretation of the finance target possible' — the OECD counts all public development finance tagged as climate even if it is not new and additional and even though much remains 'committed' but not yet disbursed.¹⁷ Oxfam estimates that developed countries will not meet the US\$100 billion target by 2025.¹⁷

These discussions on the shortcomings of the US\$100 billion at COP26 came within the context of opening discussions of the NCOG. The discussions at COP26 related to decision making on the process of deciding the new goal for climate finance mobilisation after 2025, starting from a floor of US\$100 billion a year. Resulting from those discussions, Parties agreed that deliberations on the NCOG would be set up around an ad hoc work programme over 2022–2024 (consisting of four technical expert dialogues per year, annual reports and ad hoc consultations; see Annex 1), calls for submissions from stakeholders, high-level ministerial dialogues, and stocktakes and guidance by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA).¹⁸

The Standing Committee on Finance (SCF) is working on developing an operational definition of climate finance, involving calling for submissions from Parties. The fourth biennial assessment report presented at COP26 was the first biennial assessment to not provide any recommendations, because there was not a consensus amongst Parties. Developing country Parties called on the SCF to develop their work on the operational definition of climate finance for the 26th United Nations Climate Change Conference in 2022 (COP27).

Section 4.2 explores some conclusions from this analysis for contribution to the new global goal process.

1.3 Gendered impacts of climate finance delivery

In climate finance delivery, it is also important to consider how the instruments used will impact upon other cross-cutting considerations, such as gender equality. As discussed, while over 70% of climate finance has been delivered in the form of loans, loans as instruments are not generally conducive for supporting climate activities that do not harness financial returns during the maturity of the associated loan — making them unsuitable for a majority of climate adaptation activities. Meanwhile, the majority of gender-related and responsive climate action has related to climate adaptation activities as opposed to mitigation activities.¹⁹ Given that the majority of climate finance is supporting mitigation purposes and being provided through loan instruments (see Box 1), the majority of climate finance is being delivered in a form unsuitable for supporting gender-related and responsive action.

1.3.1 Limiting capacity, capabilities, livelihoods, and welfare support

Due to the need for financial returns to repay loans, finance delivered through loans (as end-beneficiary instruments) could limit support to activities such as capacity and capability support, livelihoods support, and other welfare activities that provide vital support to ease burdens and build greater capacity of all people, but particularly of women and other marginalised genders, who typically have much larger unpaid care work and other unaccounted burdens, as funding these activities does not produce immediate financial returns. As an intermediate instrument (eg where a country may take out a loan in order to provide grants to national beneficiaries), this may cause issues associated with rising national debt (see Section 1.3.2). Delivering so much climate finance through loans could limit the amount of support going to these groups, and therefore in supporting gender equality.

1.3.2 Inequality from increasing debt burdens

Providing the majority of climate finance in the form of loans adds to the growing debt burden of countries. This has negative implications as servicing debt burdens takes up fiscal space, reducing the budget going to other activities. Budget squeezes (pressure on fiscal

space) often mean that 'non-essential' areas such as low carbon transitions and support for gender equality drop out of priority financing agendas.²⁰

As a result of pressures on fiscal space, if fiscal consolidation is undertaken, particularly fiscal consolidation based on cutting social spending and increasing regressive taxes, this can generate unequal and undesired outcomes. Past international debt relief packages linked to IMF agreements with associated conditionalities have actively impacted women more adversely than men and disproportionately disempowered women.²⁰ This is because they have failed to distinguish the different and dynamic ways in which men and women interact with the economy. Debt management policies that are apparently 'gender neutral' effectively rely on the gendered division of labour and the unpaid and underpaid work of women to cushion the impacts of fiscal austerity.²⁰

Climate financiers need to start thinking about how to provide support through blended finance or innovative financial instruments that can provide solutions for funding without shifting the burden of payments in an unsustainable way.

1.3.3 Lower access to loan instruments for women

At the individual level, in general, women have less access to loans than men, and the cost of the credit can be more expensive.²¹ Women are less likely to be paid an equal wage, have access to bank accounts and credit services, or be approved for a loan. Studies find that female-owned firms are more frequently discouraged from applying for bank credit and more likely to rely on informal finance.²² Intersectionality further reduces access to credit — studies find for example that different ethnicities within gendered categories impact on access to credit.²³ Climate finance that is delivered in the form of loans by the implementing agency to beneficiaries in-country therefore needs to be careful to not exacerbate gender inequalities.

There are examples of tools and approaches used to mitigate gender biases in access to loans, including climate-funded programmes that specifically provide loans for women, or improve terms of approval rates for example. However, larger systemic issues (such as women being paid lower wages and therefore not being able to access the same size of loans or not having access to banking or credit services) are often not addressed, nor are able to be addressed, through small-scale climate action interventions. This again suggests that other financial instruments, such as grants, may

in some contexts be better suited to delivering climate action without exacerbating gender inequalities.

There is also a broader need to acknowledge and integrate gender considerations into debt financing and debt sustainability analyses more comprehensively.

1.4 The triple crisis of debt, climate and nature

Many developing countries, and particularly the LDCs and SIDS, are facing a triple crisis of high debt levels, climate change and nature loss.²⁴ As discussed in Section 1.1, more than 60% of low-income countries are at high risk of, or already are in, debt distress, and beyond these, many of the remaining countries are up against their debt ceilings. The global pandemic and the recent food and inflation price surges represent two major external shocks in recent years that are hugely exacerbating existing problems.

These countries are also facing major climate impacts which is leading to, among many other major effects, the loss of GDP, which leads to increased debt burdens. Similar impacts are faced from the loss of nature.²⁵ Both the climate and nature crises can destabilise and significantly diminish national economies, likewise to high debt burdens. High debt burdens also impede progress on addressing the climate and nature crises.

For more than half the countries in sub-Saharan Africa, debt service repayments swallow up more than a quarter of all government revenue,⁵ leaving little to no fiscal space remaining to address climate, nature, poverty and inequality, and other pressing issues. Fiscal space can be defined as the 'room in a government's budget that allows it to provide resources for a desired purpose without jeopardising the sustainability of its financial position or the stability of the economy'.²⁶

1.5 Purpose of this analysis

The analysis presented in this paper is intended to highlight the order of magnitude of climate needs over the available borrowing space that countries have and to identify if countries are able to carry those climate needs, which has currently not been part of the climate finance discussion.

The analysis shows that the capacity of developing countries, and particularly the LDCs and SIDS, to borrow finance for climate action is very low, and that supplying climate finance as loans is not and will not be sufficient to reach the goals of the Paris Agreement.

It shows that a serious rethink is needed about the composition of instruments used to reach the target of US\$100 billion of climate finance and for deciding the composition of the new post-2025 climate finance goal.

The calculations in the analysis were undertaken to demonstrate the key issues of climate financing in a debt-constrained context. The modelling could be more rigorous in several ways, such as including GDP growth rates and other dynamic variables that may impact future borrowing space. However, we will assume that any new borrowing space will be diverted to other priority government spending and investment needs, as has happened in the past years (where debt for development purposes has been growing faster than economic growth, reducing borrowing space). Given the persistent balance of payments deficits and fiscal deficits, we do not expect that economic growth in the

coming years will reduce debt constraints, and further because the economic harm of climate change has not been integrated into debt sustainability analysis (DSA).*

Overall, we believe that the net impacts of these dynamic variables will be marginal in the next five to ten years (as discussed further in Section 2.3). Therefore, we believe that the findings of this exercise, although simplistic and approximate, are largely valid to illustrate the nature of the problem.

The values presented in this analysis are based on data from publicly available datasets, and calculations will be estimates. In understanding the implications for a particular country, nationally conducted calculations on the debt status and adaptation needs of that country based on internal data would provide a more precise and detailed insight on the situation of that country.

* The IMF has only recently began recommending countries to include climate change in debt sustainability assessments, although still on a voluntary basis. See for example the new debt sustainability framework for market access countries, which is applicable to some of the SIDS in this paper: www.imf.org/en/Publications/Policy-Papers/Issues/2022/08/08/Staff-Guidance-Note-on-the-Sovereign-Risk-and-Debt-Sustainability-Framework-for-Market-521884

Methodology

2

The methodology consists of comparing the costs of implementing climate adaptation as presented in the NDCs to the 'borrowing space' available to countries. The borrowing space is defined as the difference between the sustainable debt-to-GDP threshold for the country and the debt-to-GDP ratio in 2020. These country-specific thresholds are presented in the IMF–World Bank debt sustainability framework (DSF) for low-income countries and market access countries.^{27,28} More information on the country data and indicators used is presented in the following sections.

2.1 Nationally determined contributions: implementation costs

Every country Party to the Paris Agreement is required to submit an NDC, and update it periodically, laying out what steps it will take to cut its carbon emissions as well as laying out the measures needed to adapt to the impacts of climate change.* The NDCs can present primary climate plans, not presented elsewhere, or draw from other national strategies, such as national adaptation plans (NAPs),** national development policies, or sectoral plans, in presenting planned actions. A key caveat is that the plans and actions presented in NDCs are not necessarily the equivalent to a country's climate strategy — the plans laid out in NDCs are not necessarily developed with a whole of society approach, with meaningful national ownership, from an overarching vision and with full coverage of climate needs. However, as the experience of developing and using NDCs matures, NDCs are becoming increasingly country owned and are presenting fuller expositions of national climate needs.

The costs for implementing adaptation actions as presented in the countries' NDCs are used in this analysis as a proxy for national climate adaptation finance needs. This approach has significant limitations, given that NDCs do not necessarily present a comprehensive overview of the adaptation needs of the country, and countries have indeed scoped their adaptation needs to varying degrees.²⁹ Scoping

adaptation costs is complicated by the dynamic nature of adaptation needs — needs will increase as climate impacts worsen, and can be hard to predict too far in advance.

It is also complicated by the context-specific nature of adaptation needs. Thorough local-level consultation across the country would be required to understand specific adaptation needs — but this is a costly and intensive exercise. It is of note that some adaptation costs are already absorbed by local actors (ie local households), who bear the burden of adaptation, and whose needs are not currently included in needs calculations.³⁰ Therefore, the costs of adaptation will be much higher than presented. NDCs are far from perfect indicators of a country's climate finance needs and are likely to provide a conservative estimate. However, they are currently the best comparable source of needs.

This analysis focuses on the adaptation finance needs component only and does not include the climate mitigation finance needs component. This is because climate mitigation needs could refer to the financing of private projects and hence may require a lower level of concessional public finance. To avoid the complications of factoring in those effects, and because looking only at NDC-based adaptation financing needs already illustrates the mismatch between countries' climate finance needs and their ability to borrow, the analysis only covers adaptation finance.

This analysis compares the full adaptation finance needs against the borrowing space as an illustrative exercise to present the mismatch between the needs and supply. Box 1, and particularly Figure 6, showed that this is not far off the current context, where very little is currently flowing to adaptation (7% of climate finance) and where the majority of climate finance is being provided as loans.

The analysis also looks only at the countries that present the costs of adaptation in their NDCs, using the most recent version of the NDC available for the country. The adaptation costs presented in the LDCs and SIDS NDCs, for the countries that provide costs, are presented in Tables 2 and 3.³¹

* Article 4, Paragraph 2 of the Paris Agreement requires each Party to prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. <https://bit.ly/2Gg25W4>

** At the time of writing, 16 LDCs and 8 SIDS have published National Adaptation Plans. This analysis did not draw data from the NAPs to keep the data on comparable terms — the analysis only uses data across NDCs, which are presented on five- or ten-year timeframes, whereas data presented in NAPs present longer-term overarching planning. As more LDC and SIDS NAPs are finalised, the methodology used in this paper could usefully be applied to the data from NAPs to develop a more detailed analysis of adaptation financing needs against financing gaps over the long-term. LDCs: Benin, Burkina Faso, Cambodia, Central African Republic, Chad, Democratic Republic of Congo, Ethiopia, Kiribati, Liberia, Madagascar, Nepal, Sierra Leone, South Sudan, Sudan, Timor-Leste and Togo. SIDS: Fiji, Grenada, Kiribati, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Timor-Leste and Tonga. UNFCCC NAP Central (accessed September 2022), www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx

2.2 Debt-to-GDP ratios

The analysis uses the country's projected external debt-to-GDP ratio at the end of 2020. These projections, taken from the IMF-World Bank debt sustainability analysis (DSA) as presented in country reports,³² were made prior to the global pandemic. At the time of writing, there is no public global dataset yet available with the current values for external debt-to-GDP ratios.³³ The component of debt of focus in this analysis is the public and publicly guaranteed (PPG) external debt, as it is this component of national debt that is of interest when looking at flows of international climate finance support.

The pandemic will inevitably have impacted negatively on the PPG external debt-to-GDP ratios of almost all the countries considered. In addition, as of 2022, many countries faced a triple shock on their debt dynamics: rising food prices, rising energy prices and a rising dollar.

All countries reviewed have DSA reports from 2019 or later and the majority of countries have reports from 2020 or 2021. However, this timeline is not recent enough that the impacts of the pandemic have been able to be meaningfully incorporated — there is often a large lag with data, and by 2020 and 2021, the impacts of the pandemic were still unfolding. Nevertheless, this analysis uses the DSA data as the most up-to-date and suitable source, with the caveat that the debt-to-GDP ratios are very likely to be underestimates of the real-world situation.

The analysis does not assume that new debt space is created over the course of the NDC timeline (in the next ten years) resulting from GDP growth. This is because as well as GDP growth, national external debt will also grow. According to the trends over the last ten years for the selected countries, past debt has grown more quickly than economic growth, resulting in increases in the debt-to-GDP ratio and less space to take on new debt. It is important to also note that climate adaptation needs are growing year by year as climate impacts worsen.³⁴

Ideally one would have a more dynamic estimate of borrowing space over the ten-year financial horizon of the NDCs. However, an examination of individual country DSAs shows that debt-to-GDP ratios are not expected to come down in the majority of cases at least for the next five years, but are expected to stabilise at best, even under far-going economic reform scenarios. This will require a drastic break from the past when debt was growing faster than economic growth thereby decreasing borrowing space each year.³⁵ Therefore, current debt-to-GDP levels are a

prudent proxy for borrowing space over the next few years. Keeping debt-to-GDP ratios stable will be a major challenge under current economic conditions of high food and energy prices, rising interest rates, and upcoming debt repayments, which may put borrowing space further under pressure. The 2021 IMF report on macroeconomic developments and prospects in low-income countries finds that countries already do not have enough borrowing space left for general development purposes.³⁶

As stressed before, this exercise is meant to give an illustration of the potential problem of lack of fiscal space and climate finance in the form of loans; further analysis is needed on the country level to get a more specific picture of a countries borrowing capacity for climate investments.

Given the outlook, the calculation indirectly assumes that both debt and GDP grow at a similar level and cancel each other out, and therefore that space is neither created nor reduced.

Countries can use fiscal adjustment (such as increasing taxes, reducing expenditures or reducing interest rates) and concessional rather than commercial borrowing to reduce their debt-to-GDP ratio over time. But this is a long-term process, which is likely to be more successful if linked to climate and nature action. As discussed in Section 1.3, the climate and nature crises are economic destabilisers which would otherwise lead to losses in GDP and higher debt-to-GDP burdens (from both loss and damage to the economy and from the effect of a shrinking economy). Using climate and nature linked debt instruments is therefore one approach to tackle the three crises coherently.²⁵ These instruments are discussed further in Section 4.

2.3 Fiscally sustainable debt-to-GDP ratio thresholds

The IMF-World Bank's DSF and DSA assess a country's present value debt-carrying capacity.²⁷ The DSF draws on the macroeconomic framework and other country-specific information to classify countries based on their present value debt-carrying capacity for low-income countries. Countries will have different policies, institutional strengths, macroeconomic performance and buffers to absorb shocks, and therefore have different abilities to handle debt. Such abilities are also influenced by global factors through demand for country exports and remittance inflows.

Table 1. Public and publicly guaranteed external debt thresholds in low-income countries

DEBT-CARRYING CAPACITY	PRESENT VALUE OF PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT AS A PERCENTAGE OF GDP
Weak	30%
Medium	40%
Strong	55%

Source: IMF, 2018²⁷

The DSF uses indicative thresholds, linked to country classification, to analyse the risk of external debt distress. Thresholds are statistically determined bounds above which the risk of debt distress is considered elevated. The external risk rating is assigned by comparing the projected evolution of four PPG external debt burden indicators — both under the baseline and stress scenarios — to their respective thresholds. Thresholds depend on a country's debt-carrying capacity, with countries with stronger capacity having higher thresholds. For low-income countries, the thresholds are as outlined in Table 1.

The low-income country thresholds are provided in present value rather than nominal terms to take into account the favourable effect of concessional terms. Concessional borrowing tends to have longer grace periods, longer maturity, and lower interest rates. This means that concessional debt compared to commercial debt will appear smaller in present value than in nominal terms, lowering the debt-to-GDP ratio when expressed in present value terms instead of nominal terms.³⁷

Using the present value debt thresholds rather than nominal thresholds, implies that borrowing occurs against concessional terms. A debt is usually considered concessional when it includes a grant element of at least 35%.³⁸ The grant element is defined as the difference between the loan's nominal value (face value) and the sum of the discounted future debt-service payments to be made by the borrower (present value), expressed as a percentage of the loan's face value. Whenever the interest rate charged for a loan is lower than the discount rate — currently set in the low-income countries DSF at 5% — the present value of the debt is smaller than its face value, with the difference reflecting the (positive) grant element of the loan. Hence, debt levels presented in present value form for low-income countries are lower than their nominal values, indicating that because of the concessional terms of their loans, low-income countries could borrow more than if they would have borrowed on commercial terms.

Using the present value of borrowing space therefore incorporates calculations of larger country borrowing space than when using face values, reflecting the favourable terms of the loans, but this is only true if loans are on concessional terms, which is not always the case (for example with Eurobond issuances, or loans with a grant element below 35% - and as we have seen in Box 1, the majority of climate finance loans are not on concessional terms). Therefore, the present value borrowing space as used in the DSF may be on the higher end of estimation, and more so if one recognises that the 'favourable terms of the loans' only refers to the interest rate, grace period and maturity, but for example, ignores the impacts of borrowing in foreign currencies, which often represents another major burden of loans, even for concessional loans.

For the market-access countries in this study (defined as non-PRGT-eligible countries, which covers all advanced economies and most emerging markets),²⁷ which includes some of the SIDS in this analysis, the market-access countries' DSA thresholds are used. The DSA sets a threshold of 70% of PPG external debt as a percentage of GDP as the sustainable debt threshold across all market access countries.²⁷ The threshold for market-access countries is in nominal terms and not net present value terms to reflect the difference in the terms of borrowing — market-access countries generally do not borrow on concessional terms.

As the net present value thresholds for low-income countries reflect the concessional terms on which LDCs and the low-income SIDS generally borrow, this analysis does not discount the NDC costs. Present value terms for borrowing space are used to reflect the amount of concessional borrowing.

Furthermore, for illustrative purposes, this analysis assumes that the full amount of borrowing space is used only to finance the NDC, which will not be the case. Countries have multiple priorities to support, and would need to use the borrowing space for several purposes — supporting NDC implementation would only be one component. And as stressed before, according to the

BOX 2. EXAMPLE: SENEGAL'S CLIMATE NEEDS IN DEBT DISTRESS

The calculation of the country's borrowing space and comparison with the NDC adaptation finance needs can be illustrated by the case of Senegal, which is currently rated at moderate risk of debt distress.³⁹ Senegal's DSA classifies the country's debt-carrying capacity as strong — meaning the threshold for Senegal's PPG external debt is a 55% present value debt-to-GDP ratio.⁴⁰ The country's external debt-to-GDP ratio was projected to be 54.2% at the end of 2020. Therefore, the present value of Senegal's borrowing space would be 0.8% of GDP before breaching the sustainable carrying-capacity threshold of 55%. As Senegal's GDP is US\$24.9 billion, the borrowing space is approximately US\$199 million.

Senegal presents adaptation needs of US\$4.3 billion in its NDC. This means that the country's financing

gap is approximately US\$4.1 billion at face value, if we assume that it uses its full borrowing space to finance its NDC. Past experience suggests Senegal, like all countries, will need to spend on a number of priorities, of which climate is only one.

If Senegal uses up its fiscal space to finance the adaptation component of its NDC, that space will then be exhausted for the coming years in the absence of debt restructure and/or extended fiscal adjustment. There might be some movement where existing debts mature and new investments can be made, but the impact of that on overall fiscal space would be marginal. And significantly, Senegal would still, after exhausting their borrowing space, not be mobilising enough finance to meet their adaptation needs.

IMF, countries already have too little fiscal space left for general development purposes to catch up from the fallout of the global pandemic.³⁶

2.4 Calculating countries' domestic borrowing space

This analysis undertakes a simple calculation comparing the external debt-to-GDP ratio with the country's sustainable debt-to-GDP ratio threshold to determine the amount of borrowing space. The borrowing space is then compared to the NDC adaptation finance needs to understand how much of the need the country would be able to finance through external borrowing (for an example, see Box 2).

2.5 Accounting for domestic climate finance

Countries will already be financing adaptation to some extent through their government budgets. However, given the severe budget constraints and significant needs across various areas, LDCs and SIDS are not likely to be able to mobilise significant volumes of finance (because of limited government revenues, and, as illustrated in this study, by their limited borrowing space). For the purposes of accounting for existing domestic spending on climate adaptation, this study draws on the findings of the United Nations Development Fund (UNDP).⁴¹ Across the UNDP's study of the 54 African countries, weighted public expenditure on climate adaptation across the majority of countries

was between 0.1 and 0.4% of GDP. This accounted for meeting between 10% and 20% of adaptation needs.

For simplicity, this study takes this proportion (10–20% of adaptation needs) as the potential average public spending on climate adaptation across the study countries.

Given that the current global economy is in response to and recovery from the pandemic and the 2022 surge in food and energy prices, austerity and lack of revenues will in any case restrict countries' abilities to increase domestic expenditures, and so this proportion of financing for adaptation is unlikely to increase. In fact, as economies contract, adaptation spending is likely to drop out of government budget capacities. Support to stabilise economies will support the stabilisation of national spending on climate adaptation.

2.6 Overarching assumptions

The analysis makes a number of assumptions in the framing, as discussed in this subsection. These assumptions all err on the side of a conservative estimate of debt constraints to NDC adaptation financing.

The analysis assumes that funding raised through increased borrowing for each country would be used solely for supporting adaptation needs. In reality, countries have multiple priorities that need concurrent support, so the amount that could be raised for adaptation actions through the borrowing space is necessarily lower.

The analysis is also based on the assumption that countries would be able to fund adaptation actions from borrowing. While there is more grant-based and concessional financing available for adaptation over mitigation actions, the majority of all climate finance is still predominately loans, meaning that the funding available might not always be economically feasible and therefore accessible for countries, when putting forward the case to receive loan financing for adaptation actions.

This analysis does not include data on mitigation costs because mitigation actions, depending on the action

and context, can have commercial returns, and therefore loan instruments and private sector funding could be more viable channels for such actions. However, the analysis shows quite clearly that borrowing space across countries is tight, and that the majority do not have the funds required for their adaptation actions, which generally have significantly lower financing needs than their mitigation actions. Therefore, even if only mitigation actions were being funded through borrowing, it is clear that the amount of action that could be supported would already be significantly restricted.

Results: a review of LDC and SIDS debt and finance needs

3

3.1 Least developed countries

The LDCs are 46 countries that are especially vulnerable to climate change but have done the least to cause the problem. Changing weather patterns, particularly severe floods and droughts, are increasing the exposure of millions of people in the LDCs to poverty, hunger and disease.⁴² The LDCs collectively emit less than 1% of annual greenhouse gas emissions. Through the coordination of the LDC Group on Climate Change, LDCs work together at the intergovernmental negotiations under the United Nations Framework Convention on Climate Change.⁴³

At the United Nations Secretary General’s Climate Action Summit in September 2019, the LDC Group launched their LDC Group Vision towards a climate resilient future: ‘Our Vision is for all Least Developed Countries to be on climate-resilient development pathways by 2030 and delivery net-zero emissions by 2050 to ensure our societies and ecosystems thrive’.⁴⁴

The LDCs are now in the process of developing national plans and strategies that are in line with this overarching vision. These would set out more detailed climate and nature needs and frame them within the countries’

broader long-term development objectives. However, currently, the countries’ NDCs’ are the most commonly available documents that present information on their climate and nature needs.

Only 24 LDC NDCs provide cost information for their adaptation needs (see Table 2).

3.2 Fiscal space analysis of the LDCs

We carried out a review of the 24 LDCs (in Table 2) to analyse their fiscal borrowing space, as compared to their DSF sustainable borrowing thresholds and climate finance needs. The countries analysed were selected based on the availability of adaptation cost estimates in their NDCs and the availability of recent DSA assessment data. These 24 countries have a combined total of US\$209.8 billion in adaptation finance needs. The results of this review are presented in Figure 7 and Figure 8.

NDC-based adaptation financing needs already exceed the public borrowing space for the majority of countries (see Figure 7 and Figure 8). The ‘high risk of debt distress’ threshold is already or would then be breached for 22 out of the 24 countries.

Figure 7. Climate adaptation finance gaps by country in 24 LDCs

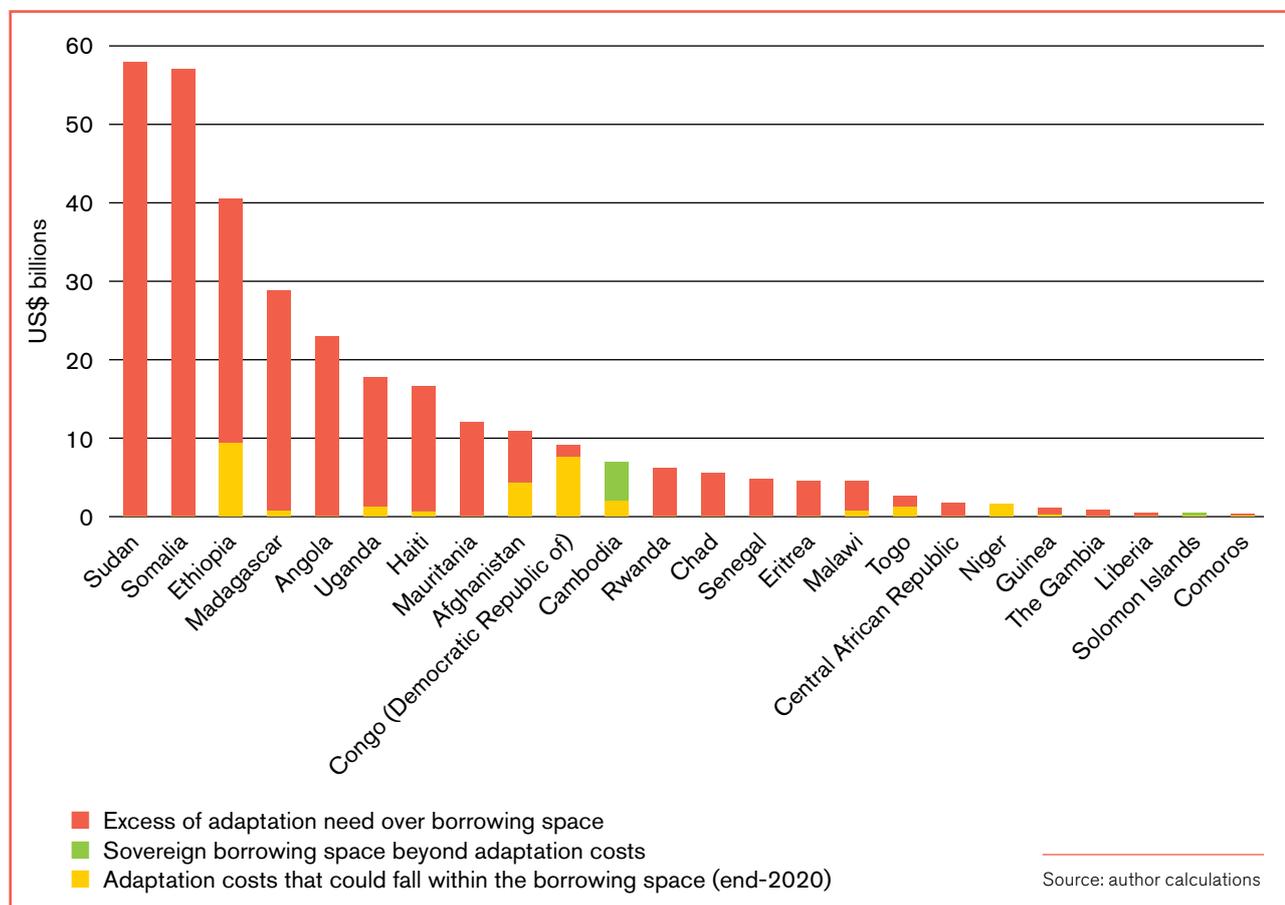


Table 2. Adaptation cost information presented in the NDCs of LDCs. Source: LDCs NDCs

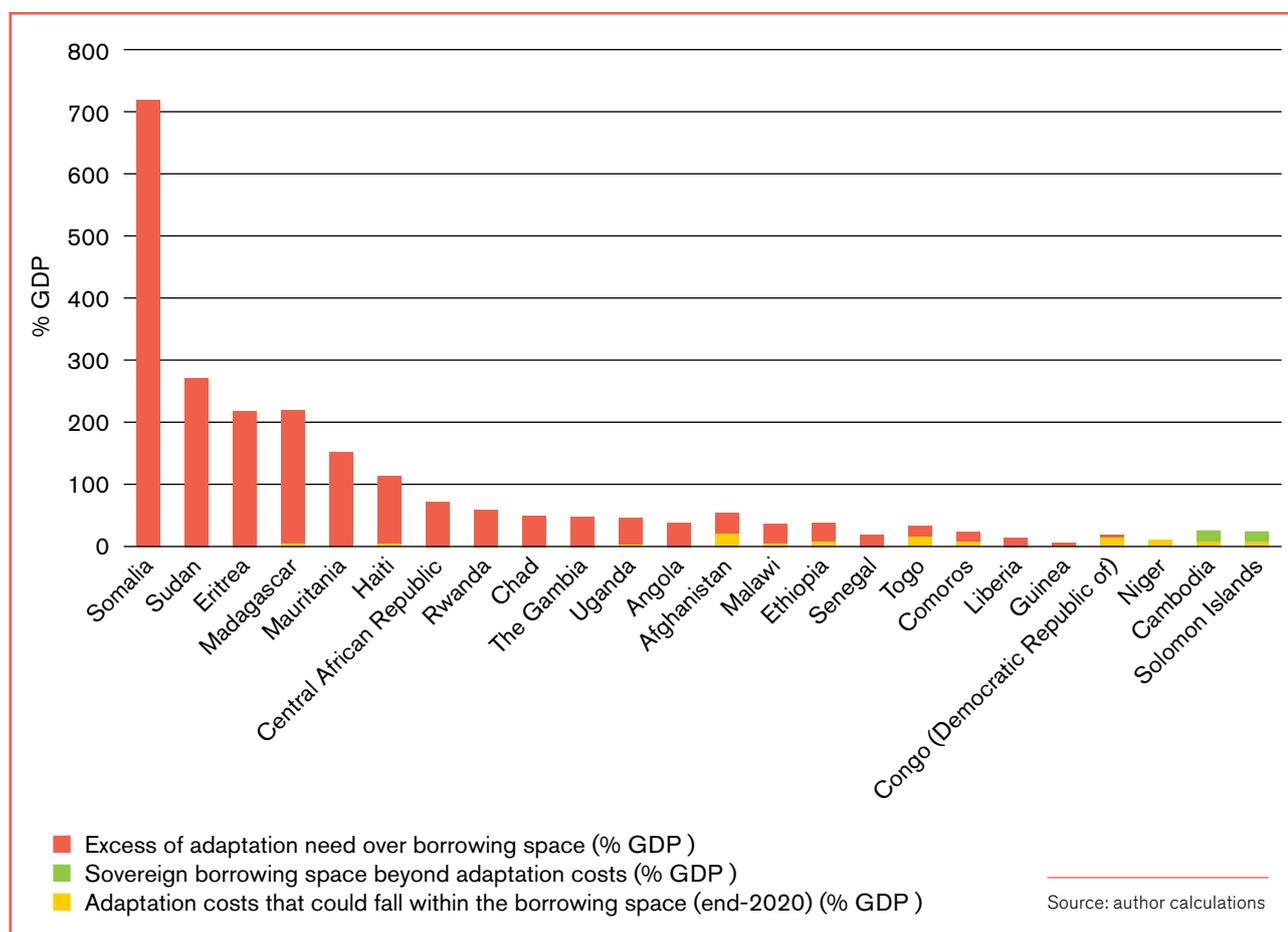
COUNTRY	NDC ADAPTATION FINANCE NEEDS (IN US\$ BILLIONS)	LATEST VERSION AND SUBMISSION DATE	TIMEFRAMES AND SECTORS
Afghanistan	10.785	Version 1, 23.11.2016	Timeframe: 2020–2030 Sectors included: Planning; meteorological and hydrological monitoring; technology development; water resources; agriculture; renewable energy; forests. Adaptation costs stated in proportion to mitigation costs: 1.6:1
Angola	0.144	Version 2, 31.05.2021	Timeframe: 2020–2025 Sectors included: Agriculture and fisheries; coastal zone; forest, ecosystem and biodiversity; water resources; human health; infrastructure. Adaptation costs stated in proportion to mitigation costs: 0.003:1
Cambodia	2	Version 2, 31.12.2020	Timeframe: 2020–2030 Sectors included: Agriculture; coastal zones; energy; human health; industry; infrastructure — buildings; infrastructure — land use planning; infrastructure — roads; livelihoods, poverty, and biodiversity; tourism; water resources. Adaptation costs stated in proportion to mitigation costs: 0.35:1
Central African Republic	1.554	Version 2, 24.01.2022	Timeframe: 2020–2030 Sectors included: Agriculture and livestock; energy; forestry; water resources; water services and sanitation; health; land-use planning; infrastructure and housing Adaptation costs stated in proportion to mitigation costs: 0.34:1
Chad	5	Version 2, 19.10.2021	Timeframe: Sectors covered: Agriculture and livestock, environment and forests; water and sanitation; renewable energies; gender and social protection; education and communication; risk management, infrastructure and spatial planning; and fisheries resources and aquaculture Adaptation costs stated in proportion to mitigation costs: 0.80
Comoros	0.3	Version 2, 05.11.2021	Timeframe: 2021–2030 Sectors covered: Forestry; agriculture; land use, land-use change and forestry (LULUCF); waste Adaptation costs stated in proportion to mitigation costs: 0.44:1

COUNTRY	NDC ADAPTATION FINANCE NEEDS (IN US\$ BILLIONS)	LATEST VERSION AND SUBMISSION DATE	TIMEFRAMES AND SECTORS
Democratic Republic of Congo	9.082	Version 2, 28.12.2021	Timeframe: 2021–2030 Sectors covered: Forestry; agriculture; water resources; health; energy; and coastal zone Adaptation costs stated in proportion to mitigation costs: 0.90:1
Eritrea	4.53	Version 1, 19.06.2018	Timeframe: 2020–2030 Sectors covered: Agriculture and forestry; water; land; marine; health Adaptation costs stated in proportion to mitigation costs: 1.28:1
Ethiopia	40.5	Version 2, 23.07.2021	Timeframe: 2020–2030 Sectors covered: Health; agriculture; forestry; land use and natural resource management; water; energy; transport; urban; climate services; and disaster risk reduction Adaptation costs stated in proportion to mitigation costs: 0.15:1
Gambia	0.8229	Version 2, 12.09.2021	Timeframe: 2021–2030 Sectors covered: Agriculture; forestry and other land use; industrial processes and product use; energy; transportation; and waste Adaptation costs stated in proportion to mitigation costs: n/a
Guinea	1	Version 2, 28.07.2021	Timeframe: 2020–2030 Sectors covered: Energy; industrial processes; agriculture; land use; forestry; transport; and waste Adaptation costs stated in proportion to mitigation costs: 0.07:1
Haiti	16.614	Version 2, 01.06.2022	Timeframe: 2022–2030 Sectors covered: Agriculture; livestock; water resources; coastal zones; health; road infrastructure; and habitat Adaptation costs stated in proportion to mitigation costs: 1.89:1
Liberia	0.08	Version 2, 04.08.2021	Timeframe: 2020–2030 Sectors covered: Agriculture; forests; coastal zones; fisheries; waste; health; transport; energy; cross-sectoral Adaptation costs stated in proportion to mitigation costs: 0.23:1
Madagascar	28.713	Version 1, 21.09.2016	Timeframe: 2015–2030 Sectors covered: Planning and coordination; disaster risk reduction; agriculture; water resources management; coastal and marine areas; health; forestry; waste; climate information; land use change Adaptation costs stated in proportion to mitigation costs: 4.5:1

COUNTRY	NDC ADAPTATION FINANCE NEEDS (IN US\$ BILLIONS)	LATEST VERSION AND SUBMISSION DATE	TIMEFRAMES AND SECTORS
Malawi	4.5	Version 2, 30.07.2021	Timeframe: 2020–2040 Sectors covered: Institutional framework; knowledge, technology and financing; resilience in agriculture; biodiversity and ecosystems; fisheries; health; infrastructure and housing; tourism; and water resources Adaptation costs stated in proportion to mitigation costs: 0.11:1
Mauritania	10.626	Version 2, 12.10.2021	Timeframe: 2021–2030 Sectors covered: Agriculture; livestock; human settlement; and water resources Adaptation costs stated in proportion to mitigation costs: 0.31:1
Niger	1.607	Version 2, 13.12.2021	Timeframe: 2021–2030 Sectors covered: Agriculture; forestry; water resources; livestock Adaptation costs stated in proportion to mitigation costs: 2.13:1
Rwanda	5.364	Version 2, 20.05.2020	Timeframe: 2020–2030 Sectors covered: Water; agriculture; land and forestry; human settlements; health; mining; cross-cutting Adaptation costs stated in proportion to mitigation costs: 0.94:1
Senegal	4.3	Version 1, 29.12.2020	Timeframe: Sectors covered: Energy; agriculture, forestry and other land use (AFOLU); waste; transport; coastal erosion; agriculture; health; water resources; fishing Adaptation costs stated in proportion to mitigation costs: 0.49:1
Solomon Islands	0.126	Version 2, 19.07.2021	Timeframe: 2020–2030 Sectors covered: Institutional framework; policies, planning and coordination; indigenous knowledge; protected areas, forestry, marine ecosystem management; human settlements; climate information Adaptation costs stated in proportion to mitigation costs: n/a
Somalia	55.5	Version 2, 31.07.2021	Timeframe: 2021–2030 Sectors covered: Agricultural and food security; water resources management and public health; disaster preparedness and management; coastal, marine environment and fisheries; energy; forestry and environment; human settlements; infrastructure Adaptation costs stated in proportion to mitigation costs: 7:1

COUNTRY	NDC ADAPTATION FINANCE NEEDS (IN US\$ BILLIONS)	LATEST VERSION AND SUBMISSION DATE	TIMEFRAMES AND SECTORS
Sudan	1.2	Version 2, 31.05.2021	Timeframe: 2021–2030 Sectors covered: Water; agriculture; health; coastal zone Adaptation costs stated in proportion to mitigation costs: 0.10:1
Togo	2.6	Version 2, 12.10.2021	Timeframe: 2021–2030 Sectors covered: Agriculture; water resources; human health; coastal zones Adaptation costs stated in proportion to mitigation costs: 1.03:1
Uganda	17.7	Version 2, 12.10.2021	Timeframe: 2020–2030 Sectors covered: Environment and ecosystems; water and sanitation; agriculture; forestry; fisheries; energy; transport; manufacturing, industrial processes and mining; cities and the built environment; tourism; education; health; disaster risk reduction Adaptation costs stated in proportion to mitigation costs: 1.71:1

Figure 8. Climate adaptation finance gaps as a percentage of GDP in 24 LDCs



In contrast to around US\$209.8 billion in LDC NDC adaptation costs for the 24 LDCs, these countries have a maximum of US\$34.6 billion in borrowing space combined. Assuming full use of their borrowing space for climate adaptation financing, the maximum that could be financed by public debt issuance is US\$27.5 billion.* The remainder — US\$182.4 billion (86.9%) — would need to be financed via other means.

In relation to the current and historic trend of providing 70% of climate finance as loans, this represents 13.1% that could be sustainably absorbed, and 56.9% of the potential loan offers above the threshold.

The remaining gap would need to be financed through sources such as grant-based budget support, debt relief or from financing by the private sector. Using the assumption that existing government budget financing may be able to cover 10–20% of the needs, this would still leave between US\$140–161 billion (67–77%) of financing required from other sources.

The analysis clearly shows that the majority of LDCs could not borrow enough to fund their adaptation actions even if we assume that borrowing would be the best means to fund adaptation actions.

For some countries, the task relative to their economies is tremendous. For example, the current adaptation needs for Somalia are many times larger than their current GDP. This outcome is a result of Somalia being one of the most climate vulnerable countries in world, while having a one of the smallest economies and borrowing capacities in the world.⁴⁵ Meanwhile, the economy is also small compared to the population and geographical size of the country, resulting in relative high adaption needs. This combination leads to the needs many times larger than their GDP (and debt carrying capacity).

The LDCs that do not provide estimates of adaptation finance costs in their NDCs or for which recent DSA data is not available are in similarly precarious positions.

All LDCs

A 2015 IIED analysis estimated that adaptation actions reported in climate action plans (NDCs) for all LDCs were estimated to collectively require US\$443.3 billion.⁴⁶ This figure is based on analysis from the iNDCs (intended nationally determined contribution) undertaken five years ago and is now likely significantly underestimated. This is because:

- Adaptation needs are increasing each year as climate impacts worsen. For example, UNEP suggests that annual adaptation costs in developing countries are

estimated at US\$70 billion currently but that this figure is expected to reach US\$140–300 billion annually in 2030.^{47,48} Loss and damage is estimated to cost US\$290–580 billion by 2030 in developing countries.⁴⁹

- Adaptation needs have not been thoroughly presented through existing assessments. This is because it is difficult to understand the extent and need to adapt, to consult with different groups on the impacts they face and their needs, and to regularly review adaptation progress and needs.

This analysis finds that the maximum amount of borrowing space across all 46 LDCs is US\$230 billion. This is about half of the LDCs estimated adaptation needs from 2015.

3.3 Small island developing states

The SIDS are a group of 38 UN member states and 20 non-UN members/associate members of United Nations regional commissions that face unique social, economic and environmental vulnerabilities. This analysis focuses on the 38 UN member states and also two of the non-UN member states (the Cook Islands and Niue) as both are members of the UNFCCC and thus eligible to receive climate finance in accordance with the climate convention.⁵⁰

The 38 UN member SIDS are divided into three geographical regions: the Caribbean (16 SIDS), the Pacific (13 SIDS), and the Atlantic, Indian Ocean, Mediterranean, and South China Sea (AIMS) (9 SIDS).

SIDS face a number of challenges stemming from their: small population size, remoteness from international markets, high transportation costs, vulnerability to exogenous economic shocks, and fragile land and marine ecosystems. Many SIDS face high import and export costs for goods as well as irregular international traffic volumes. Yet, they must rely on external markets for many goods due to their narrow resource base. These challenges make SIDS particularly vulnerable to biodiversity loss and climate change because they lack economic alternatives.⁵¹

One third of the population in SIDS live on land less than five metres above sea level, leaving them highly vulnerable to storms, sea-level rise and ocean acidification.⁵² Natural disasters can have devastating impacts, destroying communications, energy and transport infrastructure, homes, health facilities and schools. Slow-onset events such as sea-level rise pose

* This is based on the amount that can be financed by each country based on their borrowing space, noting that borrowing space is not transferrable to other countries, whereas US\$34.6 billion is the sum of borrowing space available to the countries combined.

an existential threat to small island communities, and can require relocation of populations. These challenges are compounded by limited institutional capacity, scarce financial resources, and a high degree of vulnerability to systemic shocks.⁵¹

Biodiversity is an important area for livelihoods, as industries like tourism and fisheries can constitute over half of the GDP of small island economies. Healthy biodiversity in the SIDS also helps prevent the incurrence of additional costs that can result from climate change, soil erosion, pollution, floods, natural disasters, and other related issues.⁵¹

Many SIDS are not the poorest nations, but they are among the most impacted by climate change, facing high costs, and consequently with low access to

finance. Their relatively higher income makes them ineligible for financing concessions set aside for the lowest-income countries or for funds available in times of disasters. These countries are looking to move beyond gross national income (GNI) as a benchmark of eligibility for support, and build more inclusive ways to consider countries vulnerability to shocks. A multidimensional vulnerability index (MVI) may support a better understanding of climate vulnerability and need for support, including disaster-relief financing and insurance.⁵³

This analysis also looked to SIDS NDC plans as indications on the SIDS adaptation finance needs.

Only nine SIDS provide cost information for their adaptation needs (see Table 3).

Table 3. Adaptation cost information presented in the NDCs of SIDS. Source: SIDS NDCs

COUNTRY	NDC ADAPTATION FINANCIAL NEEDS (IN US\$ BILLIONS)	LATEST VERSION AND SUBMISSION DATE	TIMEFRAMES AND SECTORS
Belize	0.146	Version 2, 01.09.2021	Timeframe: 2021–2030 Sectors covered: Coastal zone and marine resources; agriculture; fisheries and aquaculture; human health; tourism; forestry and biodiversity; land use; human settlements and infrastructure; and water resources Adaptation costs stated in proportion to mitigation costs: 0.23:1
Cabo Verde	1.1	Version 2, 02.04.2021	Timeframe: 2020–2030 Sectors covered: Agriculture; health; water resources; marine resources and coastal zones; spatial planning; disaster risk reduction; and waste Adaptation costs stated in proportion to mitigation costs: 1:1
Comoros	0.3	Version 2, 05.11.2021	Timeframe: 2021–2030 Sectors covered: Energy; industry; agriculture; LULUCF; waste Adaptation costs stated in proportion to mitigation costs: 0.44:1
Dominican Republic	8.6	Version 2, 29.12.2020	Timeframe: 2021–2030 Sectors covered: Tourism; coastal-marine resources; ecosystems, biodiversity and forests; infrastructure; human settlements; water security; food safety; and health Adaptation costs stated in proportion to mitigation costs: 0.97:1

COUNTRY	NDC ADAPTATION FINANCIAL NEEDS (IN US\$ BILLIONS)	LATEST VERSION AND SUBMISSION DATE	TIMEFRAMES AND SECTORS
Guyana	1.6	Version 1, 20.05.2016	Timeframe: 2016–2025 Sectors covered: Forests; and energy Adaptation costs stated in proportion to mitigation costs: n/a
Haiti	16.614	Version 2, 01.06.2022	Timeframe: 2022–2030 Sectors covered: Agriculture; livestock; water resources; coastal zones; health; road infrastructure; and habitat Adaptation costs stated in proportion to mitigation costs:
Mauritius	4.5	Version 2, 05.10.2021	Timeframe: 2012–2030 Sectors covered: Marine and terrestrial biodiversity resilience; health; climate smart fisheries and blue economy; tourism and coastal zone management; infrastructure and disaster risk reduction; agriculture; water; and cross cutting Adaptation costs stated in proportion to mitigation costs: 2.24:1
Seychelles	0.295	Version 2, 30.07.2021	Timeframe: 2020–2030 Sectors covered: Coastal management; critical infrastructure; fisheries; tourism; agriculture and biosecurity; resilience of blue carbon ecosystems; biodiversity conservation; health; early warning and disaster risk management Adaptation costs stated in proportion to mitigation costs: 1.02:1
Solomon Islands	0.126	Version 2, 19.07.2021	Timeframe: 2020–2030 Sectors covered: Institutional framework; policies, planning and coordination; indigenous knowledge; protected areas, forestry, marine ecosystem management; human settlements; climate information Adaptation costs stated in proportion to mitigation costs: n/a

3.4 Fiscal space analysis of the SIDS

We carried out a review of the nine SIDS (in Table 3) to analyse their fiscal borrowing space, as compared to their sustainable borrowing thresholds and climate finance needs. The countries analysed were selected based on the availability of adaptation cost estimates in their NDCs and of the availability of recent DSA assessment data. These countries have a total of US\$33.3 billion in adaptation finance needs. The results of this review are presented in Figure 9.

NDC-based adaptation financing needs in the nine SIDS already exceed the public borrowing space for the majority of these countries (see Figure 9 and Figure 10). The 'high risk of debt distress' threshold would be breached for six of them.

Of about US\$33.3 billion in SIDS NDC adaptation costs for the nine SIDS, these countries have a combined maximum borrowing space of US\$14.4 billion. Assuming full use of their borrowing space for climate adaptation financing, the maximum that could be financed by public debt issuance is US\$6.2 billion. The remainder — US\$27 billion (81%) — would need to be financed via other means.

Figure 9. Climate adaptation finance gaps by country in nine SIDS

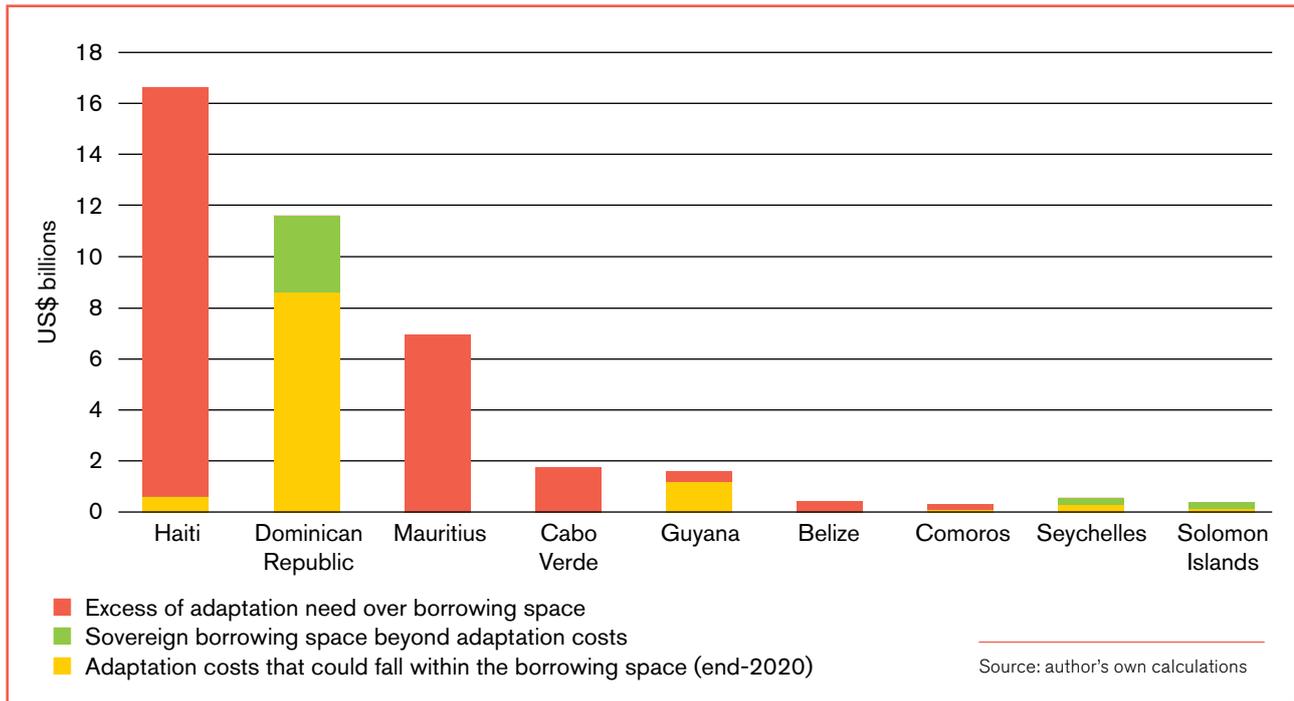
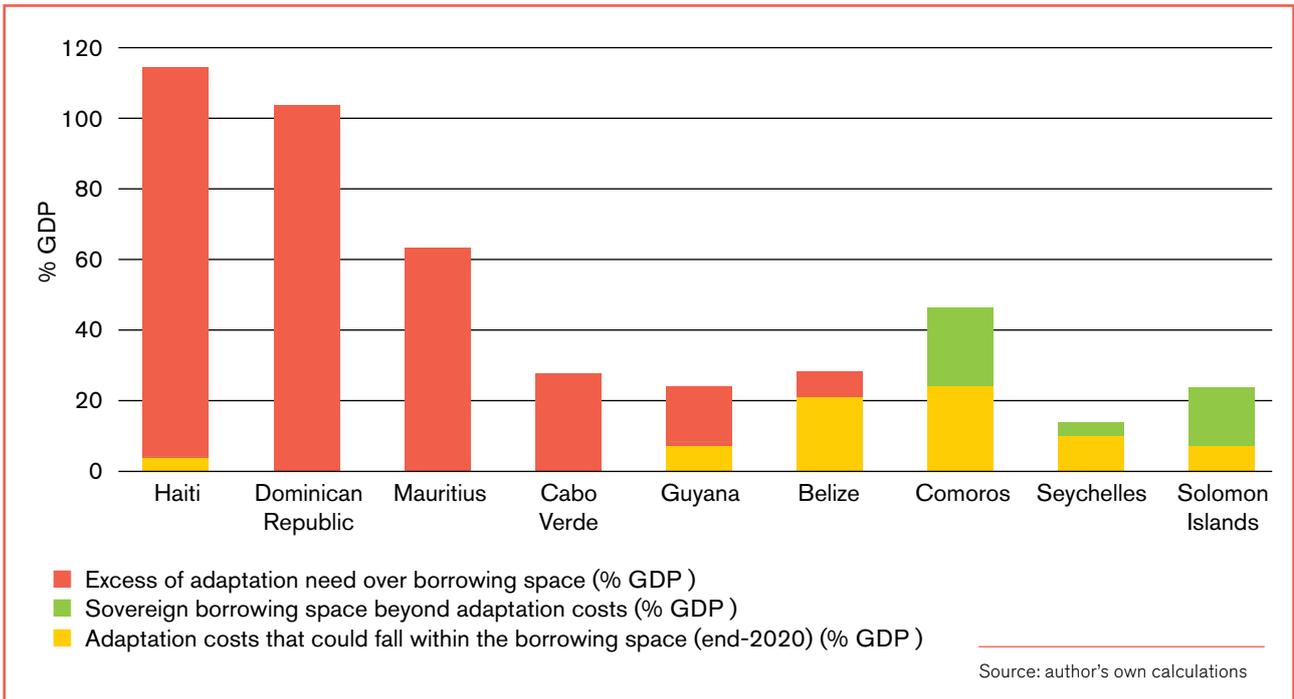


Figure 10. Climate adaptation finance gaps as a percentage of GDP in nine SIDS



In relation to the current and historic trend of providing 70% of climate finance as loans, this would represent 17% that could be sustainably absorbed, still leaving 51% of the potential loan offers above the threshold.

The remaining gap would need to be financed through sources such as grant-based budget support, debt relief or the private sector. Using the assumption that existing government budget financing may be able to

cover 10–20% of their needs, this would still leave between US\$20–24 billion (61–71%) of financing required from other sources.

It should be noted that the SIDS that do not provide estimates of adaptation finance costs in their NDCs or for which recent DSA data is not available are in similarly precarious positions.

Implications and ways forward

4

The 24 LDCs and 9 SIDS reviewed in this analysis would, at best, collectively be able to finance less than 15% of the adaptation finance needs outlined in their NDCs by increasing their sovereign expenditures through issuing external debt or receiving loans. This is 55% lower than the experience of current international climate finance mobilisation (of 70% as loans).

There is currently a great need for increased mobilisation of international climate finance and for a careful review of the form in which this finance should be delivered. The mismatch between climate finance delivery and needs suggests that there should be a pivot in how climate finance support is provided.

The findings from our fiscal space analyses for these LDCs and SIDS indicate that climate finance support should not be based on the assumption that recipient countries would be able to finance climate-related investments through significant amounts of debt financing. This analysis demonstrates the case for grants, especially as climate adaptation activities generally do not provide the immediate financial returns required for debt payback. The analysis illustrates a clear case that even for adaptation financing needs alone, there is currently not enough space to absorb support in the form of loans. Climate adaptation activities currently have little access to additional sources of finance such as from the private sector. We recommend that the focus of climate finance should shift towards the provision of support in the form of climate- and nature-linked debt restructuring and/or grant-based climate-related budget support (see Section 4.1).

Without such a pivot in the focus of climate finance it will be impossible to mobilise sufficient financing for climate action. Moreover, climate finance loans will undermine a country's debt sustainability, even impairing future climate efforts in cases of debt crises. Failure to invest in climate action through appropriate instruments will come at a high price in terms of output losses, which will also undermine debt sustainability.* If the lack of investment in climate action continues, climate-related output losses could become so large that countries' existing debt burdens would become unsustainable.

Financing the portion of NDC investments that exceeds the borrowing capacity of the country via debt relief or grant-based budget support is therefore also in the interests of the creditors and bilateral climate financiers.

Large-scale debt restructuring linked to climate and nature outcomes such as through debt for climate and nature swaps³ and climate-based budget support could

play a key role in linking debt, climate and nature. And these could contribute to general climate financing in LDCs facing high climate finance needs and limited borrowing capacity. They also avoid the need for high-transaction-cost off-budget climate projects by instead using on-budget higher-volume grant resources. Concern about effective fiduciary management could be addressed through support for public financial management, which could be a key tool in the move towards climate resilience.

International incentives, particularly collective mechanisms, such as a global debt-for-climate-and-nature platform, implemented under an updated Heavily Indebted Poor Countries (HIPC)-style initiative⁵⁴ to address the triple crisis, could encourage the buy-in of all creditors (bilateral, multilateral and the private sector).⁵⁵ Such a mechanism could also promote coordinated and genuine support for climate efforts, by committing to the objectives of the Paris Agreement and by avoiding pushing LDC and SIDS debtor countries into debt distress to finance climate adaptation.

Below we present the case for channelling international support towards strengthening debtor-country domestic financing systems, and mobilising existing debt stocks to support climate and nature action (see Section 4.1) and for ensuring that future financial support is provided in concessional forms such as grants (Section 4.2).

4.1 What is needed: aligning debt sustainability with climate and nature action

4.1.1 Strengthen frameworks

A key part of improving responses to the triple crisis of climate, nature and debt and taking debt sustainability aspects of climate and nature financing into consideration in the provision of support is to ensure that climate and nature risks are integrated into debt management frameworks, and climate and nature financing needs are integrated into financing frameworks.

4.1.1.1 Integrate climate into DSAs

Climate, nature and disaster risk factors need to be strongly assessed within the DSA. DSAs assess a country's current debt situation, maturity structures

* For example, the Global Center on Adaptation (2021) report (endnote 33) finds that the level of climate change in the next 20 years for Africa is already locked in, and that these impacts can only be reduced by adaptation. Without adaptation action, projections estimate that climate change will lead to an equivalent of 2–4% annual loss in GDP in the continent by 2040.

and other technical fiduciary components.⁵⁶ They are supposed to identify as far in advance as possible vulnerabilities in the debt structure or policy framework by strengthening the understanding of the country's projected debt burden over the following ten years, their vulnerability to economic and policy shocks based on baselines and stress-test scenarios and the risk of external and overall public debt distress.⁵⁷ Climate and nature financing needs, as well as the climate and nature impacts would need to be adequately integrated into the analysis to develop a robust understanding. In 2021, the IMF's managing director, Kristalina Georgieva, outlined four key approaches to stepping up the consideration of climate in the IMF's framework, including by integrating climate in the Article IV consultations.⁵⁸ Those policy discussions still need to translate into climate-resilient DSAs. Using country-specific data would provide important inputs to DSAs.⁵⁹

4.1.1.2 Develop green financing and debt management frameworks

Countries should ensure that their national development financing and debt management frameworks put sustainable finance and climate and nature centre stage. This should be implemented by every country to ensure robust economic management.

Sustainable finance should be promoted in the national frameworks not only in terms of instruments being used (such as those described in Section 4.1.2), but to also ensure that proceeds are used productively to make economies more climate resilient going forward.

Such sustainable finance instruments can be backed by key performance indicators (KPIs) linked to national priorities, to support country ownership and encourage international support.

A green national development financing and debt management framework can also support improved alignment of climate action with other cross-cutting priorities. As well as aligning climate and nature finance within development finance, such a framework should help improve gender considerations in developing responses by supporting a more holistic and robust view on needs, and a longer-term perspective on the responses needed.

4.1.2 Increase sustainable climate finance

There is an urgent need for climate finance to be provided through more suitable mechanisms. It is simply not feasible to deliver all — or even most — climate finance needs through debt instruments such as loans. The preference would be for climate finance (particularly for adaptation) to be provided as grant funding, as adaptation action is generally not commercial and does

not generally create the immediate financial returns required for loan repayments. Where grant funding is in short supply, there is a need to diversify the instruments used, and particularly to develop innovative financing instruments, combining different sources and types of funds to be more context specific and fit for purpose. The following sections explore some areas that can contribute towards the provision of more effective climate finance.

4.1.2.1 Mobilising existing debt stocks to support climate action

This analysis has highlighted that many LDCs and SIDS already face very high debt burdens, close to or beyond what is sustainable to carry, and are in urgent need of support. Delays in addressing debt sustainability issues are associated with protracted recessions, rising inflation and reduced spending on social safety nets, public health and education, all of which have disproportionate impacts on the poorest and most marginalised groups.⁶⁰

An emerging approach that is seeking to address the triple crisis of debt, climate and nature is of debt restructuring linked to climate and nature, using instruments such as debt for climate and nature swaps (see for example Box 3). This is where countries seek restructuring of their existing debt portfolios in exchange for redirecting debt repayments towards national climate and nature activities. Debt swaps for climate and nature could be economically efficient instruments to support climate action according to a recent IMF paper.⁵⁴

These instruments, when undertaken at large scale (ie involving the majority of the country's debt holdings in a restructuring transaction) can help expand the amount of fiscal space in the debtor country's government. This would increase the investment going into climate and nature and thereby also increase growth by supporting sustainable investments, reducing the debt stock in order to improve debt sustainability, and reducing poverty through pro-poor investments.³

A key aspect of 'programmatically' debt swaps that can increase their suitability for purpose is of structuring the transaction so that the debt-service payments that would be coming out of the government budget are redirected towards climate and nature activities, rather than setting up a parallel structure (ie the finance should not bypass the government budget and system and work through a non-government-related project fund to channel finance into climate and nature activities).⁶¹ Supporting the government by keeping finance flowing through the government's budget and PFM system is known as providing budget support (see also Section 4.1.2).

Another key aspect of achieving large-scale debt for climate and nature swaps is of involving all of a country's

creditors in the debt negotiation. Here, an international arbitrator who can facilitate negotiations between several parties — an international platform — would be useful (see Section 4.1.1.1).

The funds from a debt for climate and nature swap could be managed as performance-based payments based on agreed policy commitments captured through KPIs, which are drawn from the country's NDC, national biodiversity strategy and action plan (NBSAP) or other national plans and strategies as relevant to the country. The purpose of doing so would be to provide transparency to the creditor on the climate and nature support being undertaken while maintaining country ownership to resource nationally defined activities, and providing transparency and accountability to citizens at the national level.

BOX 3. EMERGING DEBT SWAP IN ANTIGUA AND BARBUDA

Antigua and Barbuda is currently pursuing a debt for climate swap with funding from the Open Society Foundations, as part of the Finance for Acting on Climate in the Eastern Caribbean (FACE) project. The proposal is for a debt for climate swap to be negotiated by the end of 2022 that will comprise approximately US\$245 million, or 20% of the country's public debt.^{62 63}

4.1.2.1.1 International platform for debt swaps for climate and nature

Support for debt swaps through an international platform, based in a multilateral organisation, such as the IMF or World Bank, or managed by an independent entity, would help increase creditor buy-in and lower the costs of undertaking transactions. By serving as an arbitrator and facilitator, a platform would help formalise and legitimise transactions, and support collective benefits, such as achieving economies of scale on implementing multiple transactions, facilitating knowledge sharing and coordinating a community of practice, and improving debtor countries' access to information, human resources and technical assistance. An international platform could also help to coordinate international support and additional funding for debt swaps for climate and nature.

An international platform for debt for climate and nature swaps could provide transaction support through an approach similar to how the Paris Club secretariat has supported negotiations between major creditor countries and their debtors. The Paris Club secretariat provides a framework and initial terms to ensure all creditors are on the same page. This supports the legitimacy of the process. For example, as part of the Debt Service Suspension Initiative (DSSI) in 2019–2021, the Paris Club produced a memorandum

of understanding (MoU) that detailed how the broad parameters of the DSSI could be translated into revised lending agreements. This reduces the amount of bilateral back-and-forth needed to agree on the general aspects of debt suspension before addressing the country-specific technical terms and conditions. This MoU can also then be used by non-Paris Club creditors to come in to support, in the DSSI case, the debt suspension from the same starting terms.

An international platform could therefore support efficiency and equity in undertaking a transaction. The platform could help bring creditors together and on equal terms (from an equal starting point, provided by an MoU), to help facilitate transactions.

This type of platform is currently missing, despite an announcement by the IMF and World Bank about the establishment of an 'organising framework' for connecting debt relief to countries' plans for investing in green, resilient and inclusive development.⁶⁴ Creating an international platform would help to establish and align international incentives for engaging through debt for climate and nature swaps for both debtors and creditors. An international platform could also facilitate an updated HIPC-style initiative for debt relief linked to climate and nature.⁶⁵ IIED estimates that upwards of US\$105 billion could be mobilised from such an initiative.⁶⁵

4.1.2.2 Climate-based budget support

Budget support is an approach where donors provide funding directly to the recipient government's budget to enable the country to work through their own systems and support their existing policies and plans.

'Topping up' resources to existing national plans and strategies means that the provision of budget support allows for a larger amount of funds to be mobilised. Funds can flow from multiple sources into an existing set-up, with an existing strategic direction and monitoring and reporting framework, as opposed to setting up multiple or fragmented projects and initiatives based on different funding sources.

This approach, by using existing national systems, also helps to increase recipient government ownership. By empowering recipient country systems and policies, the approach also helps to shift accountability to the national citizens, who can then better ensure transparency and engagement across stakeholders in the development of national plans, strategies and priority areas. Taking a budget-support approach can enable scaling up of the amounts of finance flowing to climate and nature.

The OECD highlights that budget support aims to improve alignment of support with country policies and to reduce the burden of multiple, fragmented aid projects. Budget support attempts to strengthen country financial and management systems by using

them to achieve better development results through more efficient and effective spending.⁶⁶

Budget support is already being supported by donors to some extent (see Box 4). However, there is potential to scale up this mode of support, particularly in the context of climate action, through grants delivered into country budgets, and through debt relief for climate and nature, where the relief is represented by foregone debt-service repayments that remain in the debtor country's budget for climate action purposes.

BOX 4. EUROPEAN UNION AND WORLD BANK CLIMATE BUDGET SUPPORT

The European Union (EU) and the World Bank have been providing climate and environment-related budget support.

For example, the EU has provided budget support⁶⁷ through the Global Climate Change Alliance Plus (GCCA+).⁶⁸ The GCCA+ is an EU flagship initiative that helps the world's most vulnerable countries to address climate change. The initiative started with four pilot projects in 2008 and has since funded over 80 projects of national, regional and global scope. The initiative mainly supports SIDS and LDCs to increase their resilience and implement their commitments from the Paris Agreement, in line with the 2030 Agenda for Sustainable Development and the new European Consensus on Development. The initiative provided €420 million in funding between 2014 and 2020.

The World Bank has provided budget support through development policy finance (DPF), channelling over US\$14 billion between 2000 and 2015.⁶⁹ Since 2000, 39% of the World Bank's environment and nature resource financial commitments have been development policy financing, and environmental DPF has accounted for roughly 9% of the World Bank's development finance totals. The World Bank states that DPF supports four core World Bank corporate priorities: (i) fiscal and debt sustainability for macroeconomic stability and resilience; (ii) a conducive private sector environment to support private-sector-led development and job creation; (iii) gender equality; and (iv) climate change adaptation and mitigation.⁷⁰

Another World Bank programme, Programme-for-Results (PforR), involves providing support through recipient country's national institutions and processes, and linking disbursement of funds directly to the achievement of specific programme results.⁷¹

4.1.2.3 Investment in public financial management systems

Large-scale debt swaps for climate and nature and budget support move climate policies to the ministry of finance and the heart of economic decision-making. They help shift domestic systems away from loans that LDCs and SIDS cannot afford or environmental grants that are typically off-budget with high transaction costs. Using such approaches requires strong public financial management systems that can effectively and efficiently channel finance, and that can ensure transparency and accountability to national and international stakeholders.

Investment in PFM systems to support climate financing is vital for building climate resilience. Supporting finance to flow through national budgets will in itself help to strengthen national systems for inclusive and transparent governance which support long-term climate and economic sustainability and achievement of the broader SDGs.

4.1.2.4 Supporting robust design of instruments

Approaches to address the triple crisis of debt, climate and nature should ensure that they are designed robustly, that is, to learn from previous approaches and not replicate or shift the burden down the line. Instruments and mechanisms can be usefully iterated to incorporate clauses and terms that build debt sustainability, climate resilience or help protect nature. There are a number of risk financing and insurance mechanisms emerging that are becoming increasingly important as climate and nature impacts worsen.

4.1.2.4.1 Climate resilient debt clauses

Some debt instruments are now being designed with climate-resilient debt clauses (also known as the hurricane clause or natural disaster clause).⁷² This is a clause which, when triggered by an event, automatically defers debt service in response to climate shocks, natural disasters or other major events. This clause addresses the fiscal space limitations that arise after an economic shock by suspending debt repayments to free up critically needed response space.

This approach was used during the COVID-19 pandemic, in the form of the G20's DSSI.⁷³ Under the DSSI, bilateral official creditors offered the suspension of debt service payments from the poorest 73 countries as a way to temporarily ease financing constraints, that could instead be used to mitigate the human and economic impact of the pandemic.

The DSSI illustrates that debt suspension could be triggered by major economic shocks that are not only rooted in climate (ie natural disasters). Any large external shock, where fiscal space would be quickly eroded and therefore where debt service suspension would be pertinent to debt sustainability, could be included. The debt suspension offered by the DSSI had the drawback that it threatened negative impacts on a country's credit ratings by acting as a form of debt 'default'. Building debt suspension into all debt instruments from the beginning may help to mitigate this issue.

While debt suspension helps to address immediate liquidity needs and does not address broader debt sustainability issues, it can be an important mechanism to prevent rapid distress and support prioritisation of essential unforeseen financing. Debt suspension is therefore an important part of designing coherent instruments — instruments that holistically consider their impacts on the debtor.

All creditors (bilateral, multilateral and private) could include this type of clause in all new debt instruments going forward.

4.1.2.4.2 Contingency insurance

A key area of spending is contingency insurance. This spending provides essential coverage for economic recessions, natural disasters, health crises and other critical risk areas. In the lowest-income countries, such insurances can have high rates of return on investment. However, spending on insurance requires significant up-front financing that is generally inaccessible to countries with weaker institutions and limited ability to borrow more on the international capital markets. Approaches to support and improve access to insurance, such as pooled-insurance schemes, help build climate resilience.

4.1.2.5 Special drawing rights (SDRs)

Another mechanism to support debtor countries meet immediate, and long-term, liquidity needs is SDRs. The SDR is an international reserve asset created by the IMF to supplement the official reserves of its member countries. The SDR is not a currency. It is a potential claim on the freely usable currencies of IMF members. As such, SDRs can provide a country with liquidity.⁷⁴

In 2021, the IMF issued a historic allocation of SDRs equivalent to US\$650 billion. The objective of the allocation was to help meet the liquidity bottleneck facing many countries due to the COVID-19 pandemic. However, because of the IMF's quota-based system, the strongest economies received the highest allocations. In response, the Group of Seven (G7) nations agreed to re-channel US\$100 billion in SDRs to the countries most in need (roughly 20% of their allocations). China also pledged to provide US\$10 billion of its SDRs to

Africa (roughly 25% of its allocation).⁷⁵ There are calls for renewed SDR issuances to continue supporting the climate agenda — for example, from Mia Mottley's 'Bridgetown Agenda'.⁷⁶

The Resilience and Sustainability Trust Fund (RST) was developed as a vehicle to facilitate SDR re-channelling, responding to the calls from member countries to provide a channel of supporting climate vulnerable countries with access to short- and long-term financing in the face of the climate crisis. The RST is seeking to fundraise US\$45 billion in SDRs as a critical mass of resources and to begin implementation by the IMF-World Bank Annual Meetings in October 2022.^{77 78}

SDRs could also be channelled to multilateral development banks (MDBs) to increase their financial capacity to support countries through on-lending.

4.1.2.6 Increase private sector finance

This analysis predominately recommends increasing grants and grant-based financing to support adaptation action in LDCs and SIDS, particularly because adaptation action is generally not commercial and does not generally create the immediate financial returns required for loan repayments. Access to capital markets is also more inaccessible to LDCs and SIDS than to other countries.

However, it should be recognised that efforts are being made to support and increase investment from the private sector that could be beneficial. There are various instruments and approaches that could use public funding to de-risk private funding — that is, to incentivise the private sector to invest in adaptation. This could be in the form of guarantees, insurance, or of financing structures that allocate public financing to public goods components of broader activities that the private sector would not otherwise fund (ie blended finance).

The private sector could also play an important role through global initiatives like carbon credit or biocredit⁷⁹ schemes, that economically internalise the value that nature- and biodiversity-rich countries play in mitigating climate change.

In order to incentivise creditors, and particularly private sector creditors, recognition of their climate efforts could be improved. For example, under the clean development mechanism of the Kyoto protocol, emission reduction projects in developing countries could earn certificated emission reduction credits. A similar mechanism as part of the Paris Agreement, recognising the climate efforts by creditors when engaging in a debt for climate swap for example, could strengthen incentives for creditors to engage.

4.2 New global goal on climate finance

A better designed international climate finance architecture is required. There are many problems with the current architecture. As highlighted in this paper, the modalities through which climate finance is being provided are not always appropriate (ie providing the majority of climate finance as loans is not sustainable). There are also other broader issues with the system that compound the problems. For example, a clearer definition of climate finance and what is counted in the goal is needed to improve accountability and reporting.

The findings of this analysis can provide several lessons for the development of new post-2025 NCOG on climate finance.

For LDCs and SIDS that are highly vulnerable to climate change, and have very low greenhouse gas emissions, adaptation and resilience are very important areas for investment. The Paris Agreement calls for financial resources to achieve a balance between adaptation and mitigation and for taking into account the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the LDCs and SIDS, considering the need for public and grant-based resources for adaptation.⁸⁰ The data on adaptation finance mobilised to date (Box 1) shows that the amount of finance being mobilised for adaptation is very low (7% of all climate finance), and that more than 70% of the finance that is mobilised is channelled as loans. This analysis illustrates that the quantum of finance needs to significantly increase, and that the modalities through which the finance is channelled need to improve. **There needs to be a significant step-up in grant and innovative grant-based mechanisms. Climate finance should not create debt sustainability problems.** This involves the provision of direct grant funding where possible and using innovative grant-based mechanisms that can help fill the gap, such as grant-based debt relief, funding from philanthropists, finance provided by the private sector, or innovative blended finance instruments. Mitigation financing also requires grant and highly concessional finance to provide effective action, but to a lesser extent than adaptation.

This analysis also leads to the recommendation that **there must be significant improvements in access to finance.** The cost of capital increases as climate vulnerability increases,⁸¹ and access to liquidity decreases. This is counter-intuitive to the support required when climate vulnerability increases. The cost of borrowing and access to borrowing and liquidity resources (such as SDRs) for LDCs and SIDS should be stepped up.

The scope of the goal should include adaptation, mitigation and loss and damage components.

Loss and damage undermines debt sustainability by presenting large up-front costs, and requiring large rebuilding and rehabilitation efforts, which causes liquidity issues and erodes fiscal space to support climate and nature action. This can create negative cycles, where the lack of fiscal space to invest in climate and nature action in turn leaves countries highly vulnerable to further loss and damage.

The new goal should ensure a scale of finance targets that adequately reflects the true costs of climate action in countries, including for adaptation, mitigation, and loss and damage.

This analysis has highlighted that countries' adaptation needs are not fully fleshed out and costed and are likely to be much higher than present estimates. UNEP's Adaptation Gap Report⁴⁶ estimates that annual adaptation costs in developing economies will be in the range of US\$155 to US\$330 billion by 2030. The new goal should incorporate this consideration of scale.

Improved accountability and reporting to support climate and debt management are needed. Ensuring accountability and predictability of financing through much clearer plans on how funds will be mobilised for the goal can support countries to plan for how best to meet climate and nature finance needs. This is a key component of strengthening the insights gained from DSA and national financing and debt management frameworks. The Climate Finance Delivery Plan could be positioned as this accountability mechanism.

Acronyms

AOSIS	Alliance of Small Island States
BA	Biennial Assessment
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of Parties
COP15	United Nations Environment Programme, 15th Biodiversity Conference, 2022
COP26	United Nations Framework Convention on Climate Change, 26th Conference of Parties, 2021
COP27	United Nations Framework Convention on Climate Change, 27th Conference of Parties, 2022
DPF	Development policy finance
DSA	Debt sustainability analysis
DSF	Debt sustainability framework
DSSI	Debt Service Suspension Initiative
EU	European Union
FACE	Finance for Acting on Climate in the Eastern Caribbean
GDP	Gross domestic product
GCCA+	Global Climate Change Alliance Plus
HIPC	Heavily Indebted Poor Countries (Initiative)
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
KPIs	Key performance indicators
LDCs	Least developed countries
LULUCF	Land use, land-use change and forestry
NAPs	National adaptation plans
LLA	Locally led action
NCQG	New collective quantified goal
NDC	Nationally determined contribution
OECD	Organisation of Economic Co-operation and Development
PPG	Public and publicly guaranteed debt
RST	Resilience and Sustainability Trust
PFM	Public financial management
PRGT	Poverty Reduction and Growth Trust
PV	Present value
SCF	Standing Committee on Finance
SDRs	Special drawing rights
SDGs	Sustainable Development Goals
SIDS	Small island developing states
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

Related reading

IIED Press Release: Least Developed Countries unable to borrow over 80 per cent of money needed to adapt to climate change. www.iied.org/least-developed-countries-unable-borrow-over-80-cent-money-needed-adapt-climate-change

Annex 1. The new collective quantified goal (NCQG) decision-making process

Ad hoc work programme 2022–2024

This work programme is facilitated by two co-chairs, one from a developed country and one from a developing country. The co-chairs are appointed by the CMA president for a duration of one year in consultation with the respective constituencies. Activities under the work programme include:

- Four technical expert dialogues — one held in conjunction with the subsidiary bodies meeting and one in conjunction with the CMA meeting, and two to be organised in separate regions, with a view of facilitating inclusive and balanced geographical participation. The dialogues are to be organised on the basis of submissions received from Party and non-Party stakeholders. The dialogues are open to all interested Parties, academia and civil society actors.
- Annual reports — the co-chairs will prepare an annual report on the work conducted under the work programme, including a summary and key findings of the technical expert dialogues, for consideration by the CMA and to inform deliberations at the high-level ministerial dialogues.
- Regular consultations with Party and non-Party stakeholders will be maintained by the co-chairs, who will ensure consultations with the Standing Committee on Finance, UN agencies, climate finance experts, academia, private sector and civil society actors.

Submissions by Parties and non-Party stakeholders

- Stakeholders were invited to submit views on the objectives of the ad hoc work programme and on the elements of consideration of the new goal by February and August 2022.

High-level ministerial dialogues

- High-level ministerial dialogues are being convened in 2022–2024 with the objective of ensuring effective political engagement and open, meaningful and robust discussion. These dialogues are to be informed by the reports of the technical expert dialogues, with a view to providing guidance on the further direction of the ad hoc work programme for the following year.

Stocktakes and guidance by the CMA

- The CMA will take stock of progress made in 2022 and 2023 and provide further guidance on the work programme, taking into consideration the annual reports of the co-chairs and summary reports from the high-level ministerial dialogues. In 2024, the CMA will take stock of the progress made and set the NCQG.

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Developing countries — especially least developed countries (LDCs) and small island developing states (SIDS) — face huge challenges in financing their current climate and nature needs. The borrowing space of LDCs and SIDS is already significantly constrained by debt, and the 70% of climate finance provided as loans to developing countries is driving further debt distress. Now almost mid-way through the process of agreeing the new collective quantified goal (NCQG) for climate finance mobilisation post-2025, this analysis highlights why it is time to urgently reverse the balance between grants and loans. It highlights why grants must be at least 70% of climate finance for LDCs and SIDS through debt swaps for climate and nature action, climate-related budget support and new reallocated Special Drawing Rights from the IMF for climate action.

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