

The Interim Report of the Expert
Review on Debt, Nature & Climate

Tackling the Vicious Circle

The image features a large circular inset in the center, which is filled with a vibrant green color. Inside this circle, a dirt path winds through a dense, lush forest. The background of the entire page is a dark, overcast sky above a dense, dark forest. The text is overlaid on the top left and the large circular inset.

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The Expert Review on Debt, Nature and Climate has been established by the governments of Colombia, France, Germany and Kenya to examine how the structure, volume and analysis of sovereign debt impact on the ability of low- and middle-income countries to conserve nature, adapt to climate change, and decarbonize their economies; and how such debt can become more sustainable, both fiscally and environmentally.

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Executive Summary

Addressing high and unsustainable debt levels is a precondition for securing a livable planet for all. Countries need sufficient fiscal space and borrowing capacity to invest in development, climate and nature, particularly given the higher upfront investment needs associated with the transition to more sustainable and resilient economic models. Shifting on to more climate-compatible and nature-positive economic paths is the only way to minimize long-term risks and costs, and secure prosperity for all. Debt is an essential fiscal tool in this endeavor. But many emerging markets and developing countries (EMDCs) are not able to mobilize the necessary resources because of high debt burdens and costs.

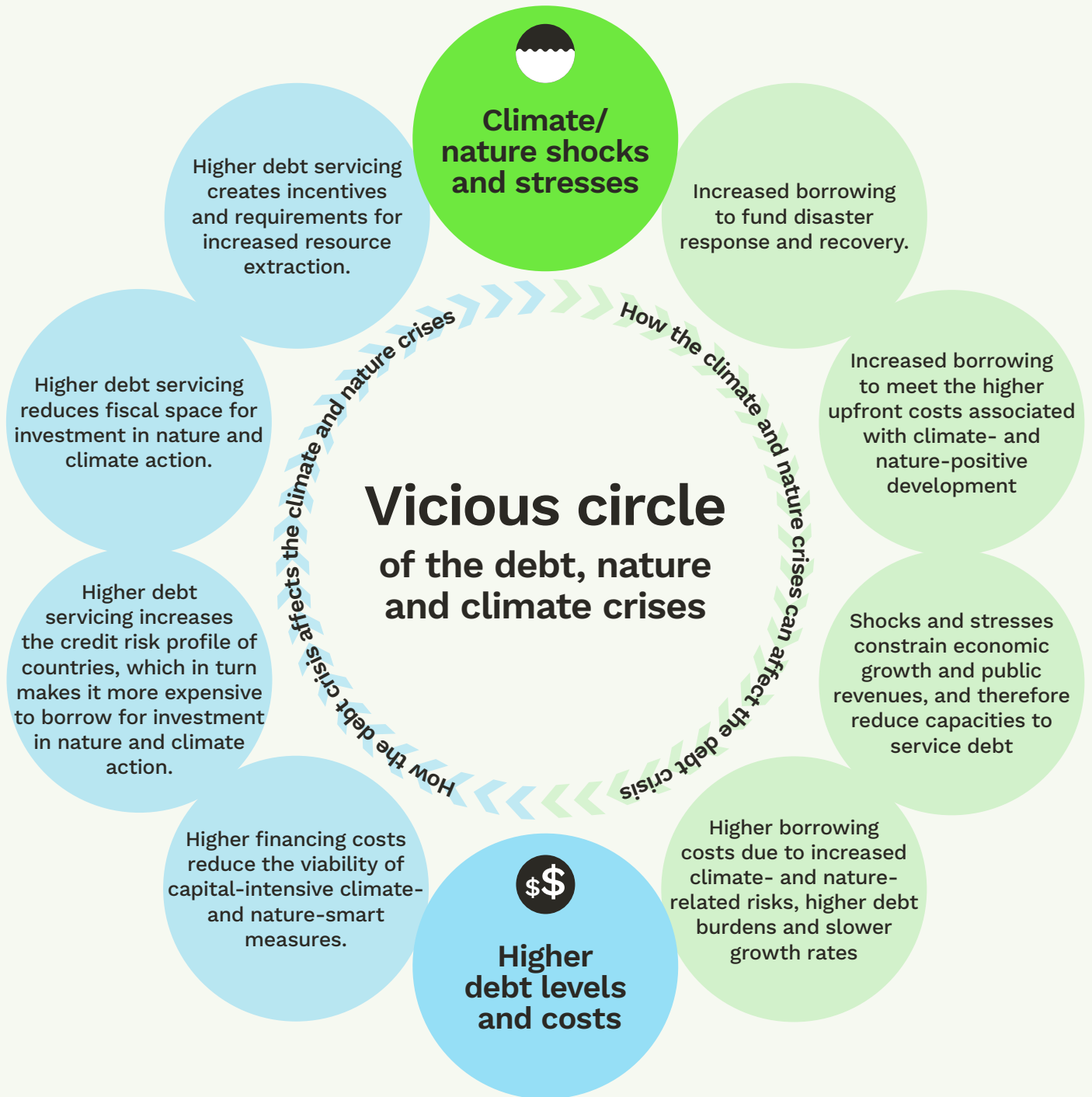
Many EMDCs now face a triple crisis, which is most acute in low-income and other particularly vulnerable countries. Changing land and sea use, overexploitation, pollution and invasive species threaten the biodiversity and ecosystem services on which life depends. The impacts of climate change are already apparent in the form of more frequent and severe extreme weather events such as heatwaves, cyclones and flooding, as well as slow-onset events such as coastal erosion due to sea-level rise or desertification. Nature loss and climate change also have mutually reinforcing effects. At the same time, many EMDCs have seen both the levels and cost of debt soar. This means that EMDCs can borrow less, at greater cost, at a moment when they need more and cheaper finance to limit the extent of future shocks and stresses through investments in resilience, climate mitigation and nature protection.

EMDCs have been subject to a series of external shocks that have fueled indebtedness and raised the cost of borrowing. EMDCs need to do more to strengthen their tax capacity and debt management systems and the efficiency of public expenditure. However, over the last three decades, many significantly improved their public financial management, mobilizing more domestic resources and borrowing more responsibly. While debt levels and costs rose in the late 2010s in most EMDCs, it was the external shocks and stresses of the early 2020s that devastated their people's lives and livelihoods, and accelerated the deterioration of their fiscal positions: the Covid-19 pandemic, fuel and food price inflation, a strengthening US dollar, soaring interest rates and – in many cases – climate and environmental disasters. In some cases, the impact of these external shocks was exacerbated by poor policy choices.

EMDCs have been subject to a series of external shocks that have fueled indebtedness and raised the cost of borrowing.

Figure ES1. Representation of the vicious circle of the debt, nature and climate crises.

Source: authors



The debt, climate and nature crises are coming together in a vicious circle for a growing number of countries. Increasingly frequent and severe environmental shocks and stresses are forcing many countries to borrow more to finance disaster response and recovery. Those same shocks and stresses make borrowing more expensive and slow economic growth. Countries with high debt burdens then have less fiscal space to pursue low-carbon, climate-resilient and nature-positive development paths. This in turn increases their vulnerability to such events – and will increase the severity and frequency of such events in the future. High levels of indebtedness may exacerbate environmental crises because those countries with abundant natural resource endowments may accelerate extraction and degradation to meet their debt servicing obligations and human needs.

A virtuous circle of green and resilient economic growth is possible. Sustainable infrastructure investment, technological innovation and improved resource productivity could drive strong, balanced and resilient growth while sustaining the ecosystem services on which economies and societies depend. However, it implies a profound change in our economies and societies, with transition risks and tradeoffs in key sectors. Still, a green growth model is feasible and sustainable. But shifting to this virtuous circle will demand a step change in financing. This will require significant increases in domestic resource mobilization by EMDCs themselves. But it will also require more international concessional finance and an effective response to unsustainable debt burdens and costs to enable countries to invest more in climate- and nature-smart development.

This Interim Report of the Expert Review on Debt, Nature and Climate seeks to provide a diagnosis of the problems. Our Final Report, to be launched in the spring of 2025, will provide a set of recommendations that could help address the triple crisis and enable developing countries to shift to climate-compatible and nature-positive development. We anticipate that our recommendations will broadly fall into three categories:

- Whether and how countries can optimize their sovereign debt, complemented by enhanced domestic revenue mobilization and public finance management, to ensure sufficient funds for spending on nature protection and climate action, alongside other sustainable development priorities;
- Specific measures to selectively reduce current debt burdens to provide additional resources for sustainable development (such as debt pauses for countries affected by environmental disasters or debt-for-nature and debt-for-climate swaps); and
- Specific measures to ensure that future borrowing and lending redresses, rather than exacerbates, the triple crisis (such as expanding sustainability-linked debt and reducing resource-backed debt).

An immediate priority is to reform Debt Sustainability Frameworks (DSFs) to provide a better analytical and policy basis for addressing sovereign debt issues in the context of the climate and nature crises. DSFs provide a set of rules and methods used by the International Monetary Fund (IMF) and World Bank to analyze the risks attached to a country's sovereign debt at a given time. The DSF defines which variables to forecast, what situations will be considered as risky, and how to make sure that the projections are realistic.

Debt Sustainability Analyses (DSAs) are of critical importance for two reasons.

- 1** DSAs determine whether, and the conditions under which, EMDCs have access to funding from the IMF, World Bank and some bilateral lenders.
- 2** DSAs determine the extent of debt restructuring and relief required when a country is in debt distress. The DSFs therefore have a powerful impact on the economic prospects and fiscal situation of the countries to which they are applied.

The current DSFs used by the IMF and World Bank do not adequately reflect the relationships between debt, climate and nature. DSAs need to better reflect the funding and financing needs of countries to address the climate and nature crises. They also need to allow creditors to better anticipate future risks, and tailor their financing terms accordingly. To this end, we offer three recommendations for reform of the DSFs for consideration by the staff, management and boards of the IMF and the World Bank.





Recommendation 1
Incorporate climate-related risks and measures to reduce them.

DSA should clearly and consistently incorporate the projected impacts of climate change, including both rapid onset shocks and slow onset stresses, in their underlying baseline macroeconomic and fiscal projections. The analysis should encompass higher potential liquidity risks stemming from environmental shocks, as well as solvency risks stemming from a deterioration in forecast economic growth rates and fiscal positions. The analysis should also account for the likely fiscal savings and greater economic stability associated with pre-arranged disaster risk financing, investments in resilience and other climate actions.



Recommendation 2
Incorporate nature-related risks and measures to reduce them.

DSAs should start to incorporate the risks associated with nature loss in their underlying baseline macroeconomic and fiscal projections. Improved data collection and modelling will be necessary to do so robustly. The analysis should also account for the economic and fiscal benefits associated with nature protection and recovery.



Recommendation 3
Make greater use of different environmental and financing scenarios.

DSFs should make more extensive use of different climate and nature scenarios, including ones with early and ambitious investments in resilience, nature protection and avoided emissions. These scenarios could illustrate how different financing sources and terms for those investments may affect debt sustainability over various time horizons. In data-poor contexts, an alternative approach might be to put a lower weight on debt incurred for climate and nature-related investments, if its implementation can be verified.

A black and white photograph of a helicopter dropping a firebomb over a forest. The helicopter is in the upper right, and the firebomb is falling towards the bottom center. The background shows a dense forest of trees. A large green circle is overlaid on the left side of the image, containing the text '1. The triple crisis' in white. The overall mood is somber and urgent.

1. The triple crisis

Nearly 10 years ago, countries united behind a shared vision for inclusive prosperity on a livable planet. After extensive diplomacy and dialogue, the Sustainable Development Goals (SDGs) and Paris Agreement were born in 2015. While global optimism was high, that year also saw a slowdown in poverty reduction. The Covid-19 pandemic and other shocks since 2020 have reversed recent development gains, leaving more people in poverty today than in 2019.¹

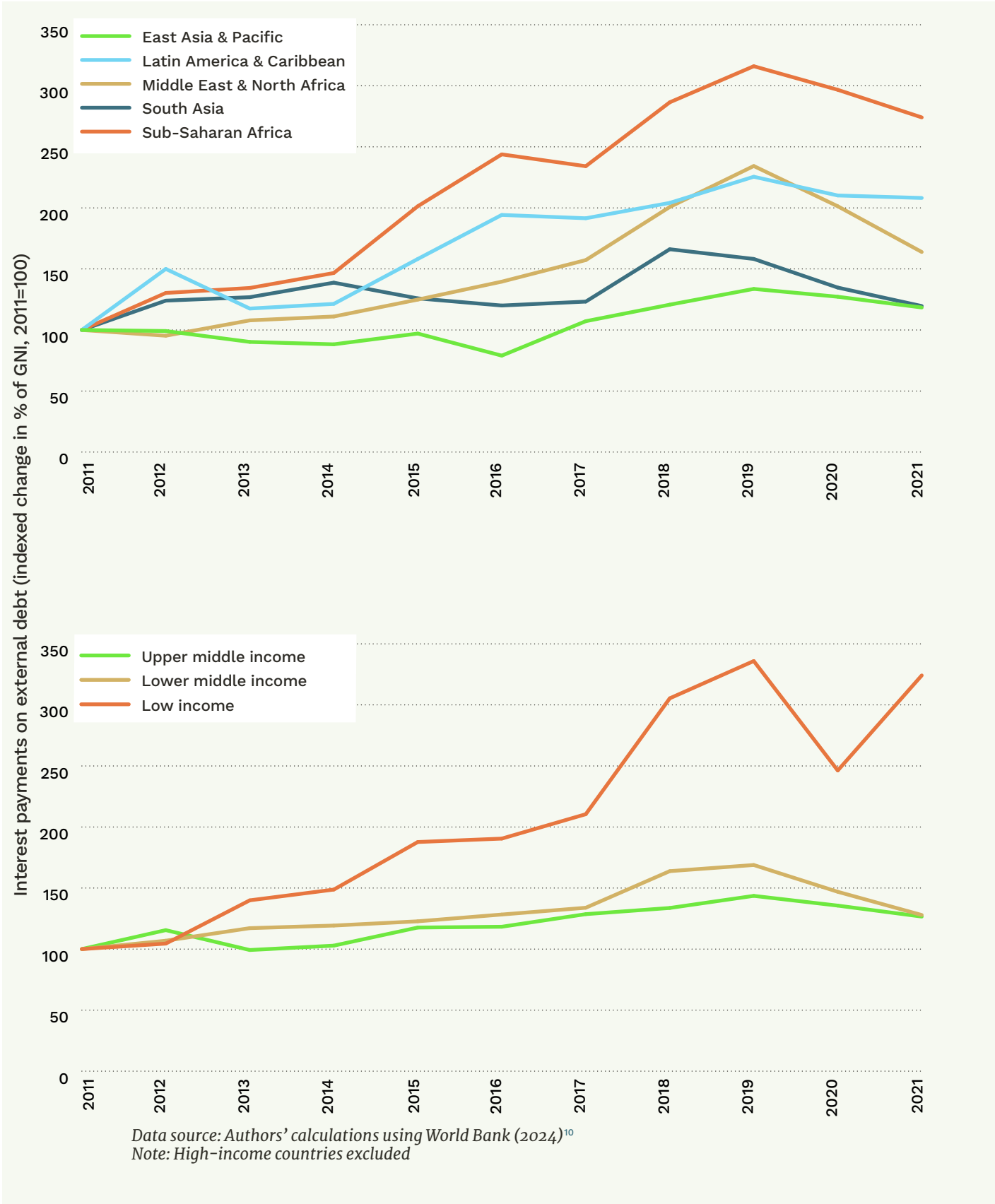
The first SDG of ending extreme poverty by 2030 is out of reach, and is likely to remain so in perpetuity if nature loss is not reversed and climate change is not halted. The poorest people are most directly reliant on biodiversity and ecosystem services for subsistence and most vulnerable to environmental shocks and stresses.² Humanity is not on track to achieve the long-term goal of the Paris Agreement to limit warming to well below 2°C and ideally to 1.5°C, or to meet the more recent target to conserve 30% of the planet for nature, established in the Kunming-Montreal Global Biodiversity Framework.

Biodiversity loss and ecosystem collapse are occurring at an alarming pace. Between 1992 and 2014, while produced capital per person doubled and human capital per person increased by about 13%, the stock of natural capital per person declined by nearly 40%.³ Species are becoming extinct up to 1,000 times the background rate,⁴ such that many scientists consider our planet to be at the start of its sixth mass extinction event.⁵ Six of the nine processes and systems scientifically proven to regulate planetary health have crossed safe levels.⁶

Climate change is already affecting people's lives and livelihoods. An additional 178 million people are exposed to dangerous levels of heat and humidity at current levels of warming, compared to the number who would be exposed in a pre-industrial climate.⁷ Some 1.8 billion people are now highly exposed to what were formerly '1-in-100-year' flood events, which are becoming much more frequent due to climate change.⁸ Around half the world's population already experience severe water scarcity for at least one month of the year due in part to climate change.⁹ Such conditions threaten public health and economic productivity.

Between 1992 and 2014, while produced capital per person doubled and human capital per person increased by about 13%, the stock of natural capital per person declined by nearly 40%.

Figure 1. Interest payments on external debt for income categories (bottom) and selected regions (top) (change in % of GNI, 2011–2022).



Shifting to a low-emission, climate-resilient and nature-positive development path is essential to sustain economic growth and human development. While offering a wide range of advantages, the transition demands higher upfront investment than a business-as-usual trajectory. Without access to affordable finance, emerging markets and developing countries (EMDCs) will be unable to eradicate poverty, reverse nature loss and tackle climate change.

The high and unsustainable debt burdens of many EMDCs pose a serious barrier to achieving the SDGs and the Paris Agreement. Between 2020 and 2023, 18 EMDCs defaulted on their sovereign debt, more than the previous two decades combined.¹¹ The debt crisis is most severe for poorer and more credit-constrained countries. While debt costs and levels are rising in most EMDCs, the greatest increase is in low-income countries where interest payments on external debt as a share of Gross National Income (GNI) have risen by 224% since 2011 ([Figure 1](#)). Four-fifths of these low-income countries are in sub-Saharan Africa, and the region has seen interest payments on external debt as a share of GNI increase by 174%, much more than the next region (Latin America and the Caribbean at 108%).

The Expert Review on Debt, Nature and Climate was established in response to these intertwined and mutually compounding challenges, which we refer to as ‘the triple crisis’. Commissioned by the governments of Colombia, France, Germany and Kenya in the context of the Paris Pact for People and the Planet Summit of 2023, we are conducting a comprehensive assessment of whether and how rising levels of sovereign indebtedness impact on the ability of EMDCs to conserve nature, adapt to climate change and decarbonize their economies, and how sovereign debt can become more sustainable, both fiscally and environmentally.

Our Interim Report provides a diagnosis of the problems as well as recommendations for the reform of Debt Sustainability Frameworks. In the remainder of this chapter, we look at the debt, nature and climate crises separately; in [Chapter 2](#), we explore how the interlinkages among them are creating a ‘vicious circle’ for many EMDCs. In [Chapter 3](#), we consider alternative economic paths that could deliver shared prosperity within planetary boundaries, which we describe as a ‘virtuous circle’, and how to finance the transition. In [Chapter 4](#), we discuss the Debt Sustainability Frameworks of the International Monetary Fund (IMF) and the World Bank, and identify ways to more effectively integrate nature and climate considerations into their design and implementation. Finally, [Chapter 5](#) lays out the steps towards the Final Report of the Expert Review, where we will provide broader recommendations on reform of the global debt architecture to enable EMDCs to break out of the vicious circle and finance the shift to low-emission, climate-resilient and nature-positive development.

1.1 The debt crisis

Government debt is an essential fiscal tool because it enables investments that would not be possible within governments' current budgets. If governments borrow judiciously and use the resources for productive investments, they can expand the economy and generate cash flows so that the country can repay the debt more easily. Debt also allows governments to spread the costs of long-term investments over the generations that will enjoy the benefits, enhancing equity.

Yet unsustainable levels of debt pose a threat to development. High levels of debt servicing relative to revenues limit the fiscal space available for critical expenditures such as health, education or social protection. Governments are also less able to make capital investments that would boost productivity and diversify economic activity.

Many EMDCs significantly improved their public financial management through the 1990s to the 2010s, mobilizing more domestic resources and borrowing responsibly.¹² Such efforts need to be consistently maintained and buttressed. Other EMDCs need to do more to strengthen their tax capacity and debt management systems and the efficiency of public expenditure.

Many (though not all) EMDCs significantly improved their public financial management through the 1990s to the 2010s. Despite these domestic efforts, a series of external shocks and stresses devastated lives and livelihoods, as well as the fiscal positions of many EMDCs.

Despite domestic efforts, many EMDCs have endured a series of external shocks and stresses that have devastated their people's lives and livelihoods, as well as their fiscal positions. The Covid-19 pandemic caused a collapse in tax receipts and a rise in spending; the Russia-Ukraine war sparked soaring fuel and food prices, necessitating a further increase in public spending; and a strengthening US dollar and rising interest rates led debt and debt servicing burdens to balloon. In addition, many countries have faced climate-fueled catastrophes with heavy response and recovery costs. While weak domestic resource mobilization and over-borrowing have exacerbated the fiscal problems faced by some EMDCs, there are clearly external forces fueling the debt crisis.

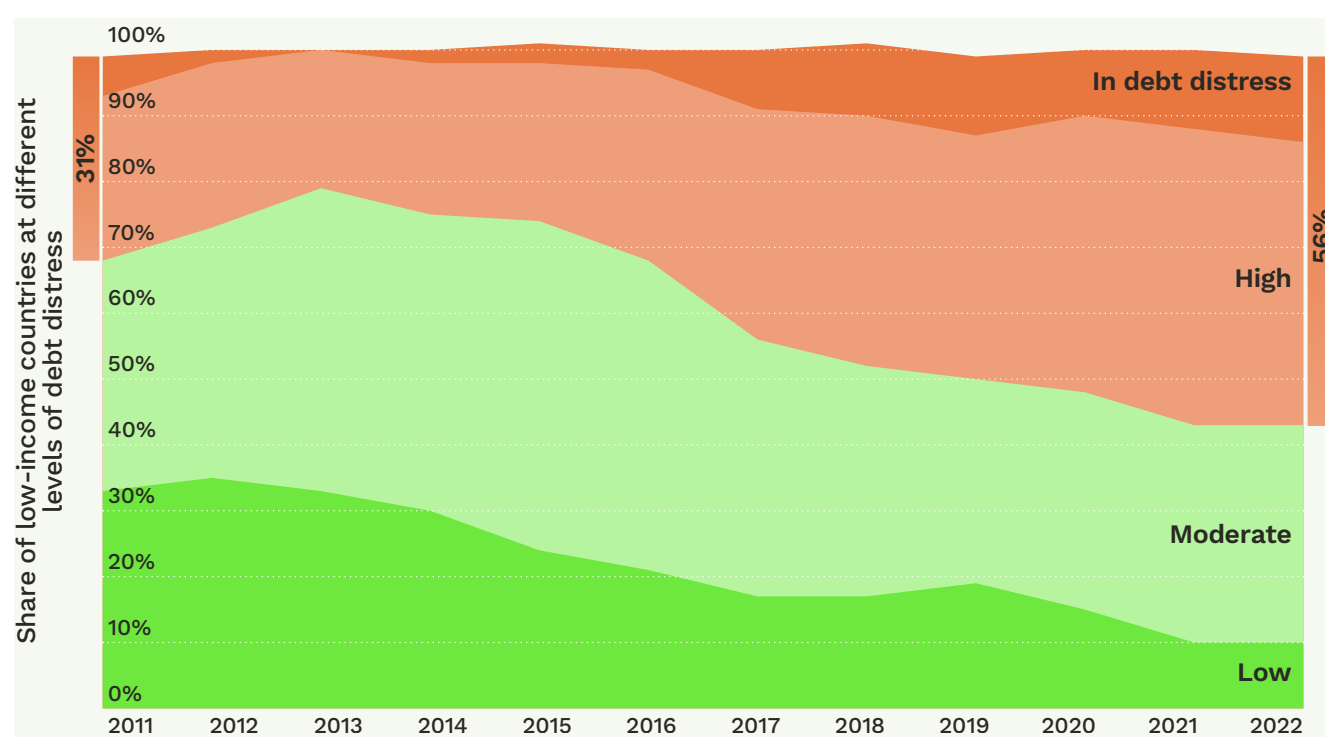
As a result of such external shocks, EMDCs are collectively experiencing levels of debt distress not seen since the early 1980s.¹³

The debt crisis is most acute in the world's poorest and most credit-constrained countries. Seventy-five such countries are eligible to borrow from the World Bank's International Development Association (IDA), either because their per capita incomes falls below an established threshold or because they do not have the creditworthiness to borrow from the World Bank's International Bank for Reconstruction and Development (IBRD).ⁱ The combined external debt stock of these

ⁱ While 'IDA-eligible' is a useful category to identify credit-constrained countries, many such countries have – like most EMDCs – increased their borrowing on non-commercial terms over recent years, from traditional lenders (Paris Club creditors, multilateral development banks and commercial banks) and even more significantly from non-traditional lenders (other bilateral creditors, most importantly China, and international capital markets).

IDA-eligible countries reached an all-time high of \$1.1 trillionⁱⁱ in 2022, more than double the 2012 level.¹⁴ This increase in debt stock significantly outpaced economic growth, jeopardizing countries' ability to service their debts – a risk exacerbated by the fact that their debt has also become more expensive. These countries' interest payments have quadrupled since 2012, to an all-time high of \$23.6 billion.¹⁵ Consequently, 16% of IDA-eligible countries were in debt distressⁱⁱⁱ in 2023 and a further 41% were at high risk (Figure 2). The experience of Zambia (Box 1) illustrates how one IDA-eligible country increased its borrowing and diversified its creditor base through the 2010s, leaving it vulnerable to external shocks such as falling commodity prices, climate change-fueled drought and the Covid-19 pandemic.

Figure 2. Risk of debt distress in select low-income countries (2009–2022)



Data source: IMF (2022)¹⁶

Note: Includes countries eligible for the Debt Service Suspension Initiative with Low Income Country Debt Sustainability Analyses (LIC-DSAs).

Collectively, the debt crisis is less acute across EMDCs with access to capital markets. The external debt stock of lower-middle-income countries increased by 89% between 2012 and 2022; the external debt stock of upper-middle-income countries (excluding China) increased by 28% over the same period. In both cases, the increase in external debt stock outpaced economic growth rates. However, these averages conceal a heterogeneity of experiences and fiscal positions.

ii All dollar amounts are in US dollars, unless otherwise indicated.

iii Debt distress is defined as periods in which countries resort to any of three forms of exceptional finance: significant arrears on external debt, Paris Club re-scheduling, and non-concessional International Monetary Fund lending.

Box 1 Zambia

After benefiting from debt relief initiatives in the mid-2000s, Zambia's economy grew steadily for over a decade. In the mid-2010s, the country embarked on ambitious public investment programs that sought to redress the historical infrastructure deficit and fund a growing civil service, but did not immediately generate a corresponding rise in revenues. While most of Zambia's borrowing prior to this period had been undertaken on concessional terms with multilateral creditors, this investment was largely financed on market terms by commercial bondholders and non-Paris Club sovereign creditors.¹⁷

Over the same period, external shocks such as drought and declining copper prices also impacted public finances. The 2015–2016 drought caused maize prices to rise 35% above the five-year average¹⁸ and curtailed electricity supply, compelling increased government spending on electricity imports and subsidies.

This confluence of factors meant that Zambia's external debt stock and interest payments on external debt more than doubled as a share of GNI between 2015 and 2019 (Figure 3). Debt servicing reached 30% of public spending in 2020. Then the Covid-19 pandemic struck, and Zambia defaulted on its debt obligations.

Zambia's economy is very dependent on nature and highly vulnerable to climate change. Agriculture, forestry and fishing account for 2.8% of GDP,¹⁹ but nearly 60% of employment.²⁰ Before the Covid-19 pandemic, tourism accounted for nearly 10% of GDP.²¹ 83% of the country's electricity supply comes

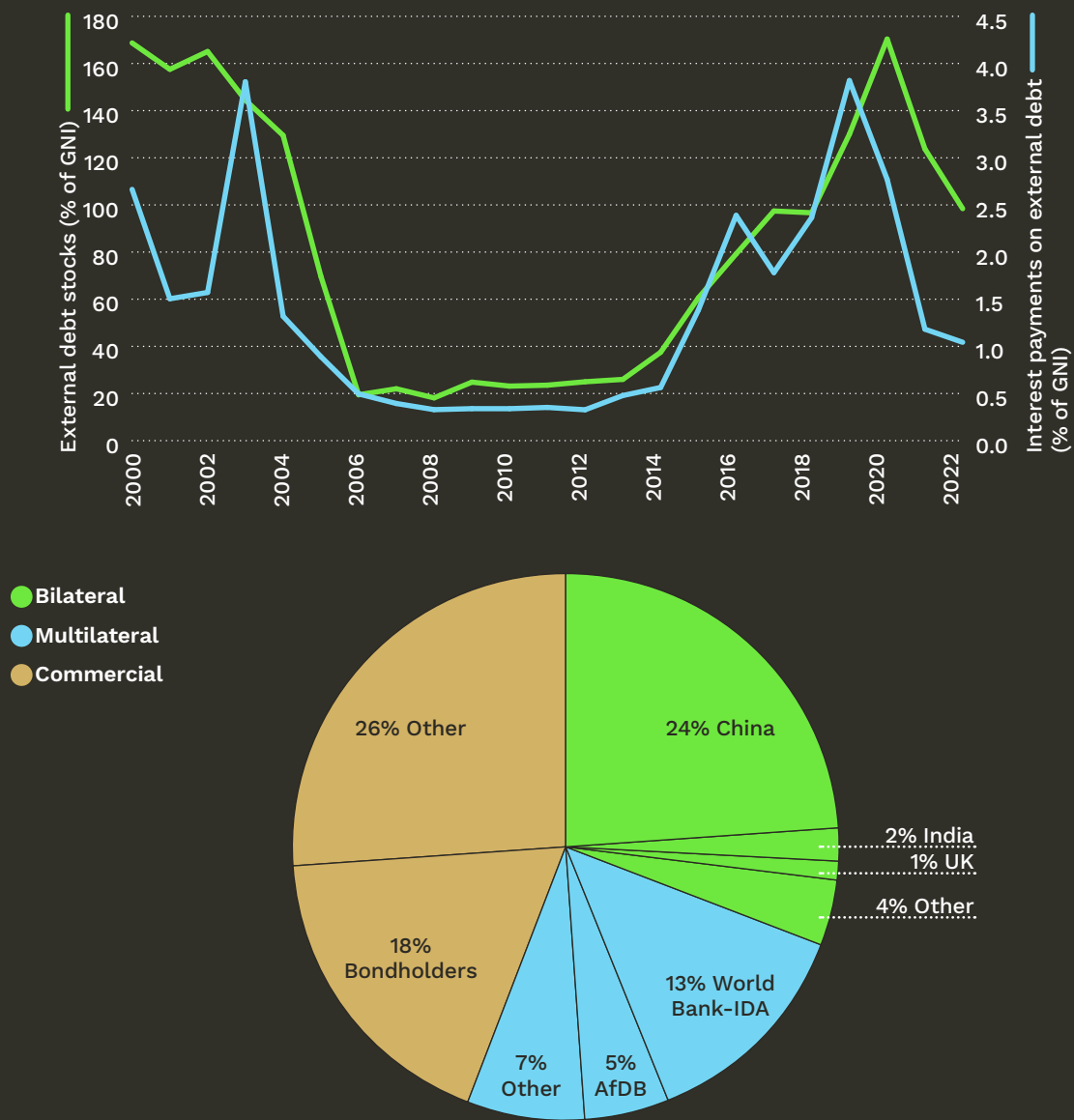
from hydropower.²² Recent projects such as Kafue Gorge Lower Power Station have expanded the country's supply of clean power, but also increased indebtedness and exposure to climate-related risks (because changing precipitation patterns will affect water flows). Most importantly, three out of every five Zambians live below the country's national poverty line,²³ lacking basic risk-reducing services and infrastructure to reduce their exposure to climate-related hazards such as floods and storms. Zambia is consequently ranked 132 (out of 185 countries) on the Notre Dame Global Adaptation Vulnerability Index, ND-GAIN.²⁴

After three years of difficult talks, a memorandum of understanding was signed between Zambia and its official creditors under the G20 Common Framework. The protracted nature of the negotiations exacerbated Zambia's fiscal difficulties, relative to a faster process; there are also questions about whether the restructuring is sufficient given Zambia's low per capita incomes and structural vulnerabilities.²⁵

In parallel to the debt discussions, the government has drafted a Climate Change Bill that could help shift the country towards a more resilient trajectory. However, the climate and nature crises continue to threaten Zambia's prospects. A drought in 2023 impacted nine million people (43% of the population) and prompted a revision of 2024 growth projections down to 2.3% from 4.7%.²⁶ Meanwhile, limited fiscal headroom constrains Zambia's ability to meet the incremental costs associated with 'climate-proofing' its development.


Figure 3. External debt stocks and interest payments on external debt (% of GNI) (top) and public and publicly guaranteed debt by creditor and creditor type (bottom)

Source: World Bank (2024)²⁷



Many individual middle-income countries face an alarming fiscal situation because poor financial management and/or structural economic vulnerabilities have intersected with external shocks. High debt burdens and costs can often be partially attributed to fiscal challenges at home, such as limited domestic resource mobilization, inefficient public investment and ineffective debt management. However, in many cases, structural economic vulnerabilities have combined with external shocks in ways that mean individual EMDCs have had to turn to unsustainable levels of borrowing to meet their citizens' basic needs. This is most starkly illustrated in the case of Small Island Developing States (SIDS). Debt build-ups in SIDS do not generally result from fiscal profligacy. Rather, structural vulnerabilities – their small size, geographic isolation, physical exposure to hazards, trade openness and high dependence on tourism – mean that external shocks have an outsized impact on their economies, and response and recovery are particularly costly. As a result, SIDS routinely maintain high debt levels, which spike further in the event of external shocks.²⁸ However, structural economic vulnerabilities are not limited to the SIDS. Egypt offers an example of a large country where structural economic vulnerabilities intersected with external shocks to fuel indebtedness.

Against this backdrop of rising debt and debt costs, nature loss and climate change now pose profound long-term challenges to EMDCs' near-term fiscal position and long-term development.



Egypt has had persistent budget deficits and has been slow to introduce economic reforms, both of which have been made more challenging by declining foreign investment and political unrest. Its external debt more than doubled between 2011 and 2019, from 15.3% of GNI to 37.3% of GNI, while its external debt servicing increased by a factor of 3.5.²⁹ Emerging from an IMF program in 2019, the country was ill-prepared for external shocks. Tourism and remittances – which accounted for 10.4% and 8.4% of Egypt's GDP respectively in 2019³⁰ – slumped during the Covid-19 pandemic. Egypt therefore returned to the IMF in 2020. Two years later, the Russian invasion of Ukraine (which supplied 61% and 24% of Egypt's wheat respectively)³¹ drained foreign exchange reserves and led food subsidies to spiral: a further increase in public spending on top of the massive pandemic-induced stimulus package. Meanwhile, the government's ability to raise receipts from the Suez Canal has faced repeat shocks, most recently the Gaza war.

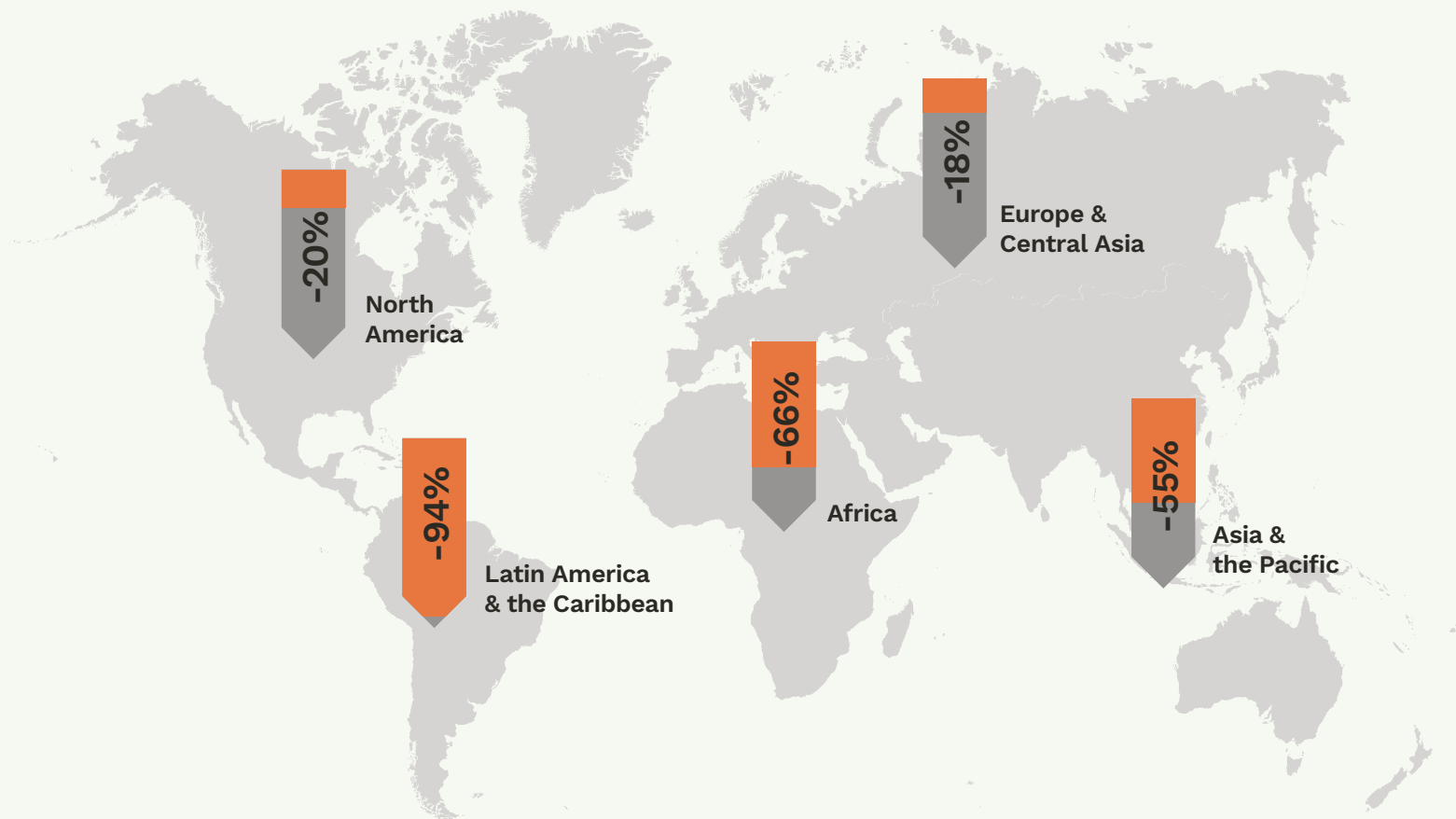
1.2 The nature and climate crises

Biodiversity makes our world both beautiful and functional, while the ecosystem services that it underpins are essential for human wellbeing. The natural provision of food, fuel (biomass) and medicines is indispensable for meeting the basic needs of the world's poorest people.³² For many people, the cultural and spiritual value of biodiversity and ecosystems are irreplaceable.³³ And ultimately, humanity depends on regulating services such as water and air purification, pollination, flood protection and decomposition of organic waste for survival.

Changes to land systems, freshwater systems and the biosphere far outstrip 'safe' planetary boundaries,³⁴ and therefore risk tipping Earth systems out of their environmentally stable state. 75% of ice-free land and 63% of oceans have been transformed by humans in some way.³⁵ The extent of loss varies among ecosystems. Wetlands, grasslands and old-growth forests – all habitats rich in biodiversity, and which provide important local and global ecosystem services such as carbon sequestration and nutrient cycling – have borne the most severe impacts. In part due to land- and sea-use change, species are becoming extinct up to 1,000 times the background rate;³⁶ even for species not threatened with extinction, populations are rapidly declining (Figure 4).³⁷

Figure 4. Average decline in wildlife populations (1970–2018)

Source: Westveer et al. (2022)³⁸

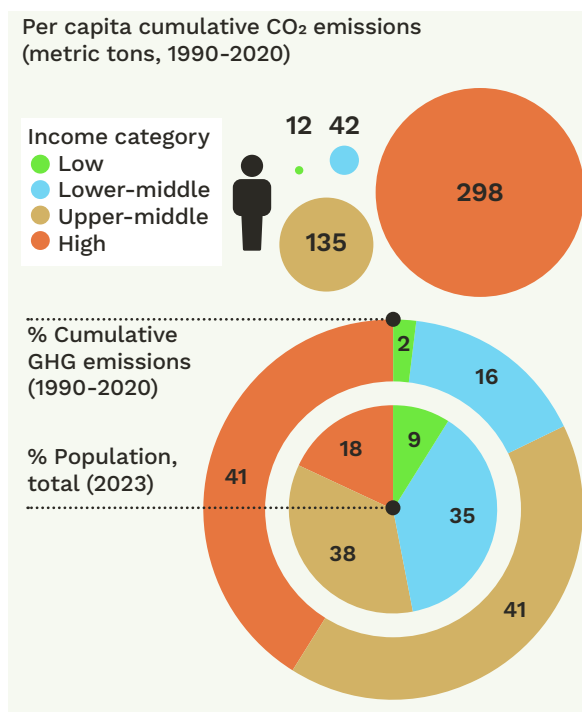


The loss of ecosystems and biodiversity has profound implications for human wellbeing and economic productivity. For example, increased agricultural yields have been partially achieved through the cultivation and production of fewer types of plants and animals, at the expense of local breeds and varieties. Their wild relatives are also disappearing fast. Over the long term, the decline in diversity poses a risk to the resilience of food systems. Similar trade-offs loom in marine and freshwater ecosystems: aquatic foods provide at least 20% of the average per capita intake of animal protein for 3.3 billion people around the world.³⁹ Overfishing to meet demand today risks malnutrition and hunger in the future. Through these channels and many others, the nature crisis poses a threat to shared prosperity.

Nature loss goes hand-in-hand with the climate crisis, each exacerbating the other.

The increasing frequency and severity of climate-related shocks and stresses is already taking a severe toll on societies and economies. One recent study estimates that the climate change-attributable economic damage from extreme weather averaged \$53 billion a year between 2000 and 2019.⁴⁰ In the first six months of 2024 alone, climate-related disasters have been reported to cause over \$41 billion in damage.⁴¹ Yet despite the overwhelming evidence on the causes and consequences of climate change, emissions have continued to increase year-on-year.⁴² With current policies, humanity is on track for warming of 2.7°C by the end of this century.⁴³ Higher levels of warming will lead to exponentially more severe climate impacts (Figure 6).

Figure 5. Share of cumulative CO₂ emissions by country income category, relative to share of population, and per capita cumulative greenhouse gas emissions.

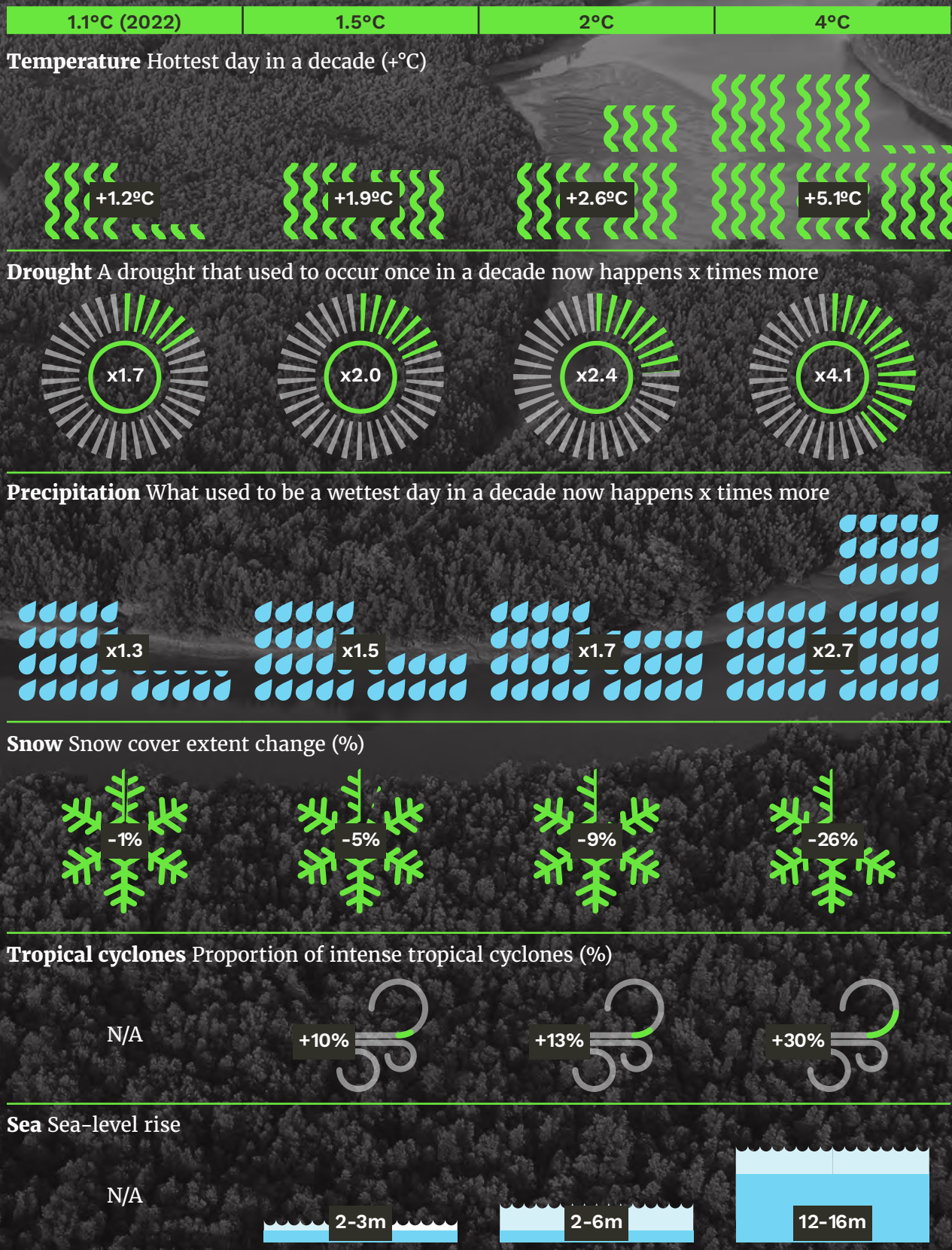


Source: World Bank (2024)⁴⁵

The adverse impacts of climate change are borne very unequally. The most vulnerable people, including those on low incomes or who are marginalized or disadvantaged based on factors such as their gender, ethnicity, age or disabilities, are disproportionately affected by the adverse impacts of climate change. The most vulnerable countries are those with high exposure to the impacts of climate change, such as the SIDS, and those without the resources and capacities to prepare for its impacts, such as the Least Developed Countries (LDCs). Indeed, one of the great injustices of climate change is the mismatch between the individuals and countries that account for the greatest share of emissions vis-à-vis those who are most vulnerable to the impacts of climate change. The 10% of households with the highest per capita emissions (two-thirds of whom live in developed countries) contributed around 48% of global consumption-based household GHG emissions, while the poorest 50% contributed only 12% (Figure 5).⁴⁴

In this chapter, we have reviewed the debt and environmental crises separately. In the next chapter, we will explore the interlinkages among them.

Figure 6. Response of the climate system to changes in average global temperature



Source: IPCC (2021)

An aerial photograph of a village with several buildings and trees, partially submerged in floodwater. A large green circle is overlaid on the image, containing white text. The text reads: "2. The vicious circle: debt, nature and climate".

2. The vicious circle:

debt, nature and climate

Nature loss and climate change jeopardize the economic and human development prospects of all countries, but EMDCs are more exposed to these risks and have less capacity to adapt – in part because of their high debt burdens and costs. For many EMDCs, climate- and nature-related impacts have already increased the levels and cost of sovereign debt, which in turn is already constraining much-needed investment to address the climate and nature crises. Thus, many EMDCs are becoming trapped in a vicious circle (Figure 7),⁴⁷ which accelerates and accumulates the adverse economic, fiscal and physical impacts of the triple crisis. Breaking this vicious cycle is difficult because shifting on to a more sustainable and resilient development path demands increased spending and investment, which is not possible when debt burdens and borrowing costs are unmanageably high.

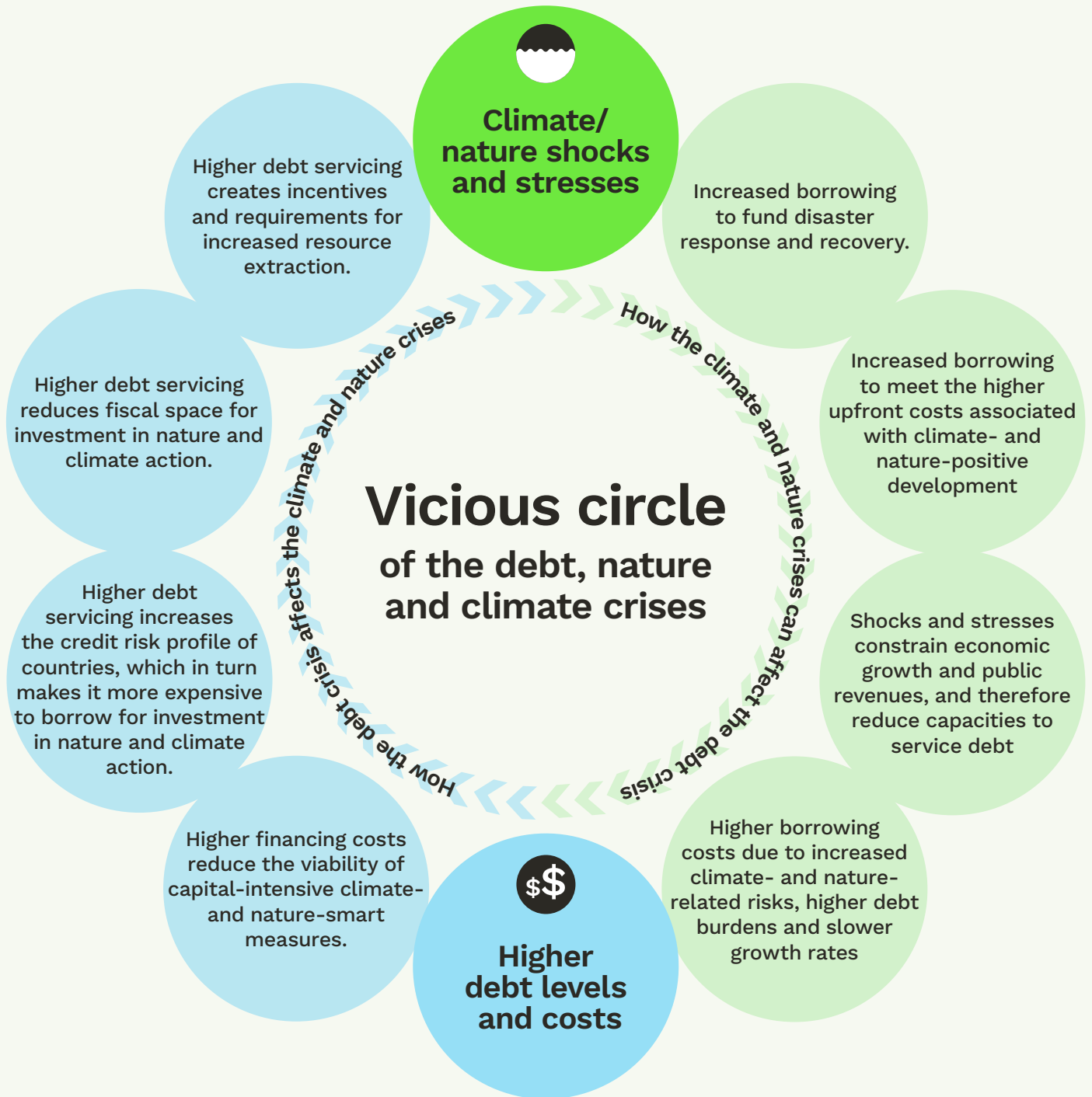
Many EMDCs are becoming trapped in a vicious circle, which accelerates and accumulates the adverse economic, fiscal and physical impacts of the triple crisis.

2.1 How do nature and climate crises affect sovereign debt?

The nature and climate crises affect sovereign debt levels and costs through five inter-connected mechanisms:

- Increased borrowing: climate- and nature-related shocks and stresses demand more public spending on response and recovery, i.e. governments may need to borrow more to finance the induced deficit.
- Lower tax and export revenues: climate- and nature-related shocks and stresses can slow the rate of economic growth, i.e. governments have lower revenues to meet their debt obligations.
- Higher borrowing costs: climate- and nature-related shocks and stresses pose more risks for creditors, as do countries with high debt burdens and slower economic growth. Governments therefore need to borrow at higher interest rates, increasing debt servicing costs.
- Higher investment needs: low-emission, climate-resilient and nature-positive development paths have higher upfront costs than business-as-usual alternatives, i.e. governments need to borrow more, increasing the total debt stock.
- Stranded assets/workers: the need to transition to low-emission and nature-positive development paths may create stranded workers and stranded assets, increasing public spending needs and liabilities (which may sit on public budgets or private balance sheets).

Figure 7. Representation of the vicious cycle of the debt, climate and nature crises



Environmental shocks and stresses require governments to spend more – and that increase in public spending is often met by borrowing. Incremental costs include meeting humanitarian needs (for example, providing shelter or food to affected communities), recovering from the damage (for example, rebuilding homes and infrastructure) and securing disaster risk financing (for example, paying insurance premiums).⁴⁸ That increase in public spending is often met by borrowing. The IMF examined 11 EMDCs that had experienced a disaster that caused damage worth 20% or more of GDP and found that public debt increased on average from 68% of GDP in the year of the disaster to 75% of GDP three years afterwards.⁴⁹ Although rapid-onset events like cyclones and floods might cause the most visible economic damage, slow-onset events like salination or coastal erosion (due to sea-level rise) will also demand higher public spending, as illustrated by Zambia’s experience ([Box 1](#)).

Most countries seek to prevent debt burdens from increasing to an unsustainable level through economic growth, but climate- and nature-related impacts affect macroeconomic performance. Larger economies enable increased public revenues, which means that debt servicing burdens become proportionally smaller. But environmental shocks and stresses can reduce agricultural productivity, erode labor productivity, disrupt trade, deter investment or damage infrastructure so that resources need to be diverted to reconstruction.⁵⁰ Even short-term shocks and stresses can have long-term impacts on economic growth and public finances.⁵¹ The example of Bangladesh ([Box 2](#)) illustrates how recurring climate- or nature-related impacts act as a handbrake on economic growth. The climate and nature crises therefore limit countries’ ability to grow their way out of unsustainable debt levels.

In 2015, Tropical Cyclone Erika struck Dominica and caused economic damage worth 90% of GDP. Two years later, the debt-to-GDP ratio had increased from 77% to 84%. In the same year, Hurricane Maria caused damage worth 226% of GDP; two years later its debt-to-GDP ratio had increased from 84% to 98%.⁵² As of April 2024, Dominica remains at high risk of debt distress.⁵³



Box 2 Bangladesh

Bangladesh has averaged economic growth of over 6% a year since 2000,⁵⁴ and it is poised to graduate from Least Developed Country status in 2026. Economic growth outpaced new borrowing over most of this period, so that Bangladesh's external debt stock fell from 28% of GNI to 15% in 2016.⁵⁵ While external debt has risen again slightly over the past decade, Bangladesh's public debt has primarily increased through domestic borrowing. This has the advantage of being denominated in local currency, but is considerably more expensive than its external debt, which is mostly on concessional terms and owed to bilateral and multilateral creditors (Figure 8). Overall, Bangladesh's public debt levels are lower than the average for lower-middle-income countries, but the country grapples with weak economic governance and poor domestic resource mobilization: tax revenues were worth just 7.6% of GDP in 2021.⁵⁶

In the last few years, Bangladesh has endured a series of external shocks above and beyond its ongoing exposure to environmental hazards. During the first wave of the Covid-19 pandemic, Cyclone Amphan – the strongest storm on record to hit the Ganges delta – caused an estimated \$13 billion of damage.⁵⁷ Although the country rebounded strongly from both crises, Russia's war on Ukraine then disrupted wheat and fuel imports and led to much higher subsidy bills.

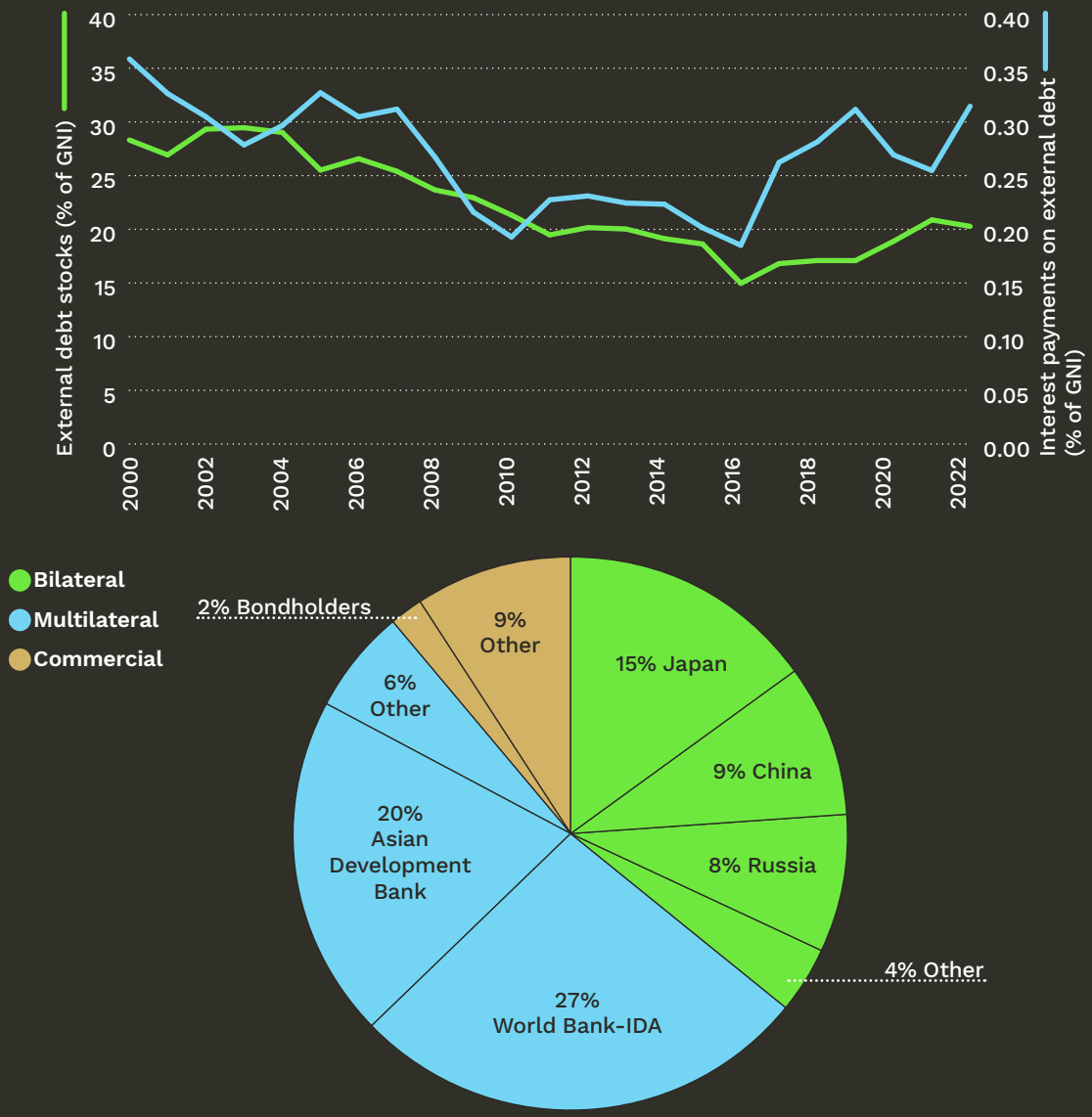
These factors, among others, led Bangladesh to seek financial support from the IMF,⁵⁸ and to a downgrade of Bangladesh's credit rating by Fitch, Moody's and S&P.

Bangladesh has been a world leader in adaptation policies and investments, massively reducing mortality associated with extreme weather events over recent decades. Despite these efforts, climate change acts as a brake on Bangladesh's economic growth and human development. The low-lying, deltaic nation is ranked 163 (out of 185 countries) on ND-GAIN.⁵⁹ Tropic cyclones already cost Bangladesh about \$1 billion a year (0.7% of GDP), while flooding costs around \$2.2 billion (1.5% of GDP).⁶⁰ Resources spent on disaster response and recovery are effectively diverted from productive and social spending. Looking ahead, climate change is projected to lead to more frequent and severe riparian flooding and storm surge. Sea-level rise also poses a chronic threat across the south of the country, leading to land erosion, salination and infrastructure damage.

Continued investments in adaptation and resilience will be essential to climate-proof the impressive development gains Bangladesh has achieved over the past three decades, and to sustain progress going forward. With a public debt-to-GDP ratio of 41% in 2024 (compared to an EMDC average of 69.4%),⁶¹ borrowing could be an important means of financing those investments if enabled through improved domestic resource mobilization and more robust public financial management.

Figure 8. External debt stocks and interest payments on external debt (% of GNI) (top) and public and publicly guaranteed debt by creditor and creditor type (bottom)

Source: World Bank (2024)⁶²



Climate- and nature-related shocks and stresses also increase the cost of capital, as lenders and investors recognize that their money is at greater risk. The channels may not be obvious: for example, it is rare for a country's credit rating to be downgraded immediately after an environmental catastrophe.⁶³ However, climate change and nature loss can negatively affect important economic, fiscal and monetary indicators, such as growth rates, tax revenues and insurance premiums, which in turn influence credit ratings.⁶⁴ A study of the Vulnerable 20 (V20) group of countries in 2018 suggests that exposure to climate risks increased the cost of their debt by an average of 117 basis points. This means that, for every \$10 they spend on interest payments, they need to pay another dollar because of climate change.⁶⁵ EMDCs already have much higher costs of capital than advanced economies; greater vulnerability to climate- and nature-related risks further widens the gap.

Against this grim backdrop of more, and more expensive, debt, EMDCs face a final challenge: low-emission, climate-resilient and nature-positive development paths have higher upfront costs than business-as-usual modes of growth. More environmentally sustainable economies benefit from lower operating costs (for example, because renewable technologies have no fuel costs and energy efficiency measures reduce bills) and generate a host of important co-benefits, such as cleaner air and enhanced energy security.⁶⁶ However, the capital-intensive nature of climate technologies and the public good characteristics of nature protection mean that countries choosing these paths face higher investment and spending needs. EMDCs (excluding China) will need to spend around 4.1% a year of GDP in 2025 (compared with 2.2% in 2019) and around 6.5% of GDP a year by 2030 to shift to more climate-compatible and nature-positive economic trajectories (more in [Chapter 3](#)).⁶⁷

Countries that are not able or do not choose to shift to lower-emission paths face greater transition risks in the form of stranded assets, workers and communities. In the medium term, these impacts are likely to directly manifest in government budgets in the form of greater liabilities (particularly where carbon-intensive assets have been held by state-owned enterprises) and higher public spending needs. Transition risks may also pose a threat to macro-financial stability, explaining increasing attention to climate change from central banks.⁶⁸ Such adverse economic, fiscal and financial outcomes then translate into higher debt and higher costs of capital.⁶⁹

In short, climate- and nature-related shocks demand more domestic revenue mobilization and more borrowing by vulnerable countries. Higher debt levels (even with improved tax capacity) and increased physical risks will increase the cost of that borrowing, thereby having a compound impact on debt burdens. Yet responding to the climate and nature crises demands higher levels of public investment and spending, even as countries find their fiscal space and borrowing capacity diminished by those very crises.

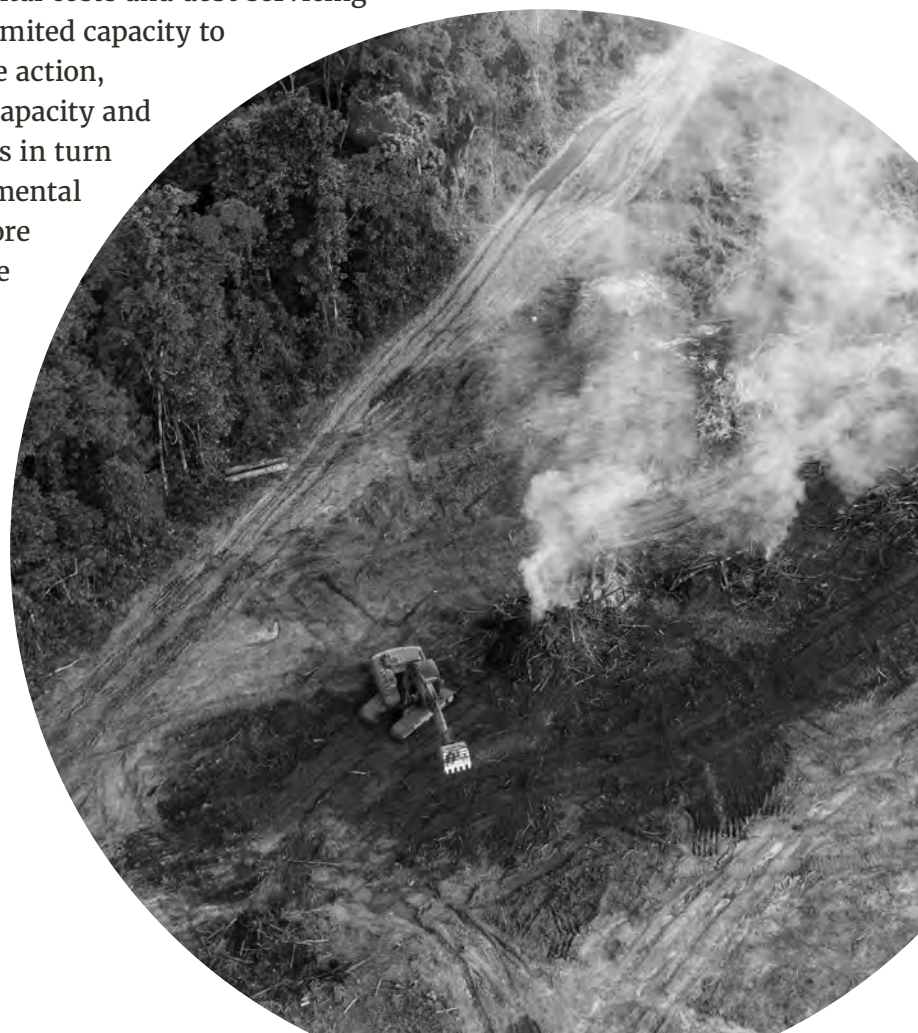
Against a grim backdrop of more, and more expensive, debt, EMDCs face a final challenge: low-emission, climate-resilient and nature-positive development paths have higher upfront costs.

2.2 How does the debt crisis affect the nature and climate crises?

The debt crisis in turn affects the climate and nature crises through three channels:

- Higher capital costs and debt servicing burdens constrain spending on, and investment in, nature and climate action.
- Higher capital costs reduce the economic affordability of lower-carbon, more climate-resilient and more nature-positive measures relative to business-as-usual alternatives.
- Heavy debt and debt servicing burdens incentivize – and sometimes require – unsustainable levels of resource extraction.

EMDCs with higher capital costs and heavy debt servicing burdens have less fiscal headroom for public spending and investment, as funds that could otherwise be devoted to productive investment and social spending must be allocated to interest repayments. The combination of increased borrowing and rising interest rates means that interest payments on external debt increased by 174% in sub-Saharan Africa and 224% in low-income countries between 2011 and 2022 (Figure 1, above). Figure 9 shows what this means for public spending over the last decade. The most pronounced change is in sub-Saharan Africa, where health and education spending (as a share of GNI) have remained relatively constant while servicing on external government debt has increased nearly four-fold. High capital costs and debt servicing burdens mean that governments have limited capacity to invest in development, nature or climate action, particularly where they have weak tax capacity and inefficiencies in public expenditure. This in turn increases their vulnerability to environmental shocks even as those shocks become more frequent and severe, as illustrated by the experience of Jamaica (Box 3).



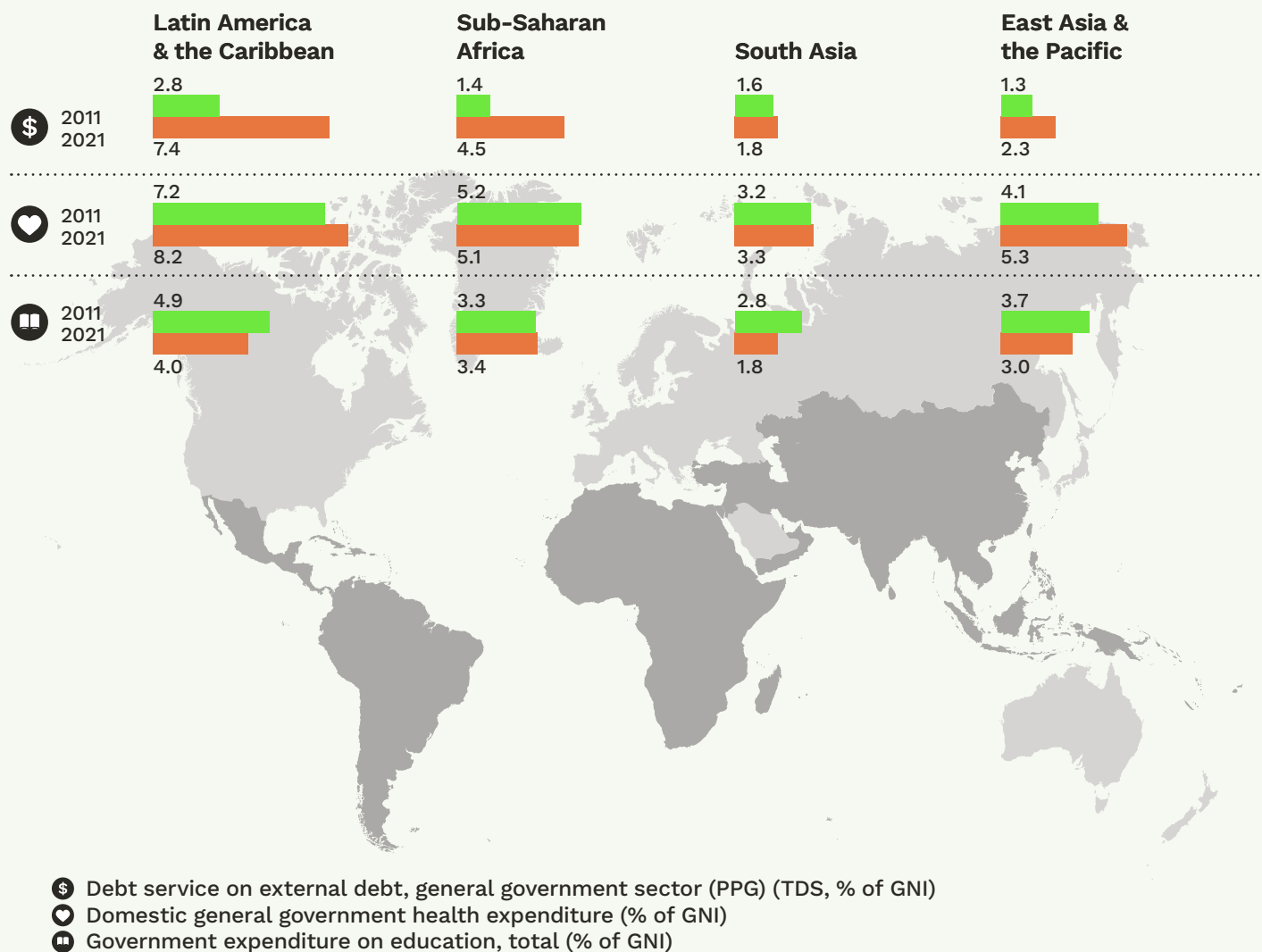


Figure 9. Public expenditure on health, education and debt service on external debt in selected regions (% of GNI)

Source: Authors' calculations using World Bank (2024).⁷⁰

Note: High-income countries are excluded from all regions.

High costs of capital also influence the economic competitiveness of capital-intensive low-carbon measures. Measures with high capital costs (such as renewables) become less attractive than those with lower upfront costs but higher operating costs. Thus, high financing costs render solar and wind power generation less competitive over their lifetime than coal- and gas-fired power generation, and electric vehicles less competitive than those with internal combustion engines.⁷¹ Since sovereign bonds are treated as the benchmark for pricing other asset classes in a market, high public costs of borrowing affect private investment as well: the average implied premium of onshore wind, offshore wind and solar PV is typically 200–300 basis points above that of the sovereign bond.⁷²

High and unsustainable levels of debt can fuel climate change and nature loss through incentivizing unsustainable use of natural resources. To generate the revenues necessary to meet their debt obligations, many governments will continue to extract and export commodities even if prices fall. One study of 21 EMDCs with high fiscal dependence on oil and gas revenues found that countries increased borrowing both when oil and gas prices were high (which boosts the credit ratings of countries with large reserves, and thus their capacity to borrow in international debt markets) and when they were low (to avoid imposing the full cost of declining revenues on their citizens).⁷³ Although expenditure was also cut when energy prices fell, the cuts were rarely in proportion to the revenue decline, leading to larger fiscal deficits and – in many cases – greater borrowing.⁷⁴ Indebted oil and gas producers therefore end up in a spiral, whereby rising debt burdens create incentives to maintain and expand production even when oil and gas prices are low, fueling carbon lock-in.

While decisions around oil and gas production will often be made by state-owned enterprises, reduced public spending and other conditions associated with international financial assistance have been demonstrated to fuel resource extraction by commercial actors. For example, forest clearing for crop production and logging for export increased in Bolivia, Cameroon and Indonesia after structural adjustment programs.⁷⁵ Cuts to social protection and public services due to constrained fiscal space may also exacerbate poverty, pushing people to turn to nature for subsistence and livelihoods. In these ways, high levels of indebtedness might lead to the unsustainable extraction of renewable resources, such as timber or fish, or to the accelerated extraction of non-renewable resources, such as fossil fuels and minerals.

The ‘vicious circle’ described in this chapter may play out for countries at all income levels, but some are more at risk than others. Certain countries are particularly physically exposed to environmental shocks and stresses, such as SIDS. Other countries are very susceptible because they are economically dependent on nature. Countries with low per capita incomes tend to lack risk-reducing infrastructure and services, which limits their adaptive capacity. Many countries with these characteristics had high but sustainable levels of debt in the late 2010s. However, a series of external shocks are now trapping them in a vicious circle of indebtedness and vulnerability.

Many EMDCs are therefore able to borrow less, at higher cost, at a moment when they need more and cheaper finance to transition to climate-compatible and nature-positive development. We consider what a more sustainable and resilient economic model might look like in the next section.

Many EMDCs are able to borrow less, at higher cost, at a moment when they need more and cheaper finance to transition to climate-compatible and nature-positive development.

Box 3 Jamaica

In 2013, Jamaica's public debt-to-GDP ratio reached a staggering 144%.⁷⁶ The origins of these unsustainably high debt levels date back to the 1990s and early 2000s, a period known as the 'great moderation', when Jamaica borrowed heavily (including from domestic banks) for development programs. Jamaica was then struck by a series of crises including the global financial crisis, a drop in the value of the Jamaican dollar and two cyclones: Hurricane Nicole in 2010 caused \$239.6 million of damage, and Hurricane Sandy in 2012 caused \$109.1 million. Jamaica needed to restructure its debt through two rounds of debt exchanges, first in 2010 and again in 2013.

Yet just a decade later, Jamaica reported a public debt-to-GDP ratio of 68%.⁷⁷ Ongoing debt reductions were achieved through substantial institutional reforms, including fiscal responsibility legislation, improved tax administration and stronger debt management practices. Jamaica also ran a high fiscal surplus of up to 7.5% for many years to repay its debt.⁷⁸ Its prudence has meant that Jamaica's credit rating has been upgraded regularly over the past decade, enabling the country to access an increasingly wide range of capital sources (Figure 10) on more affordable terms. However, tight fiscal management has also limited investment in productive infrastructure, social services or climate adaptation as the country sought to protect its fiscal position and debt reduction

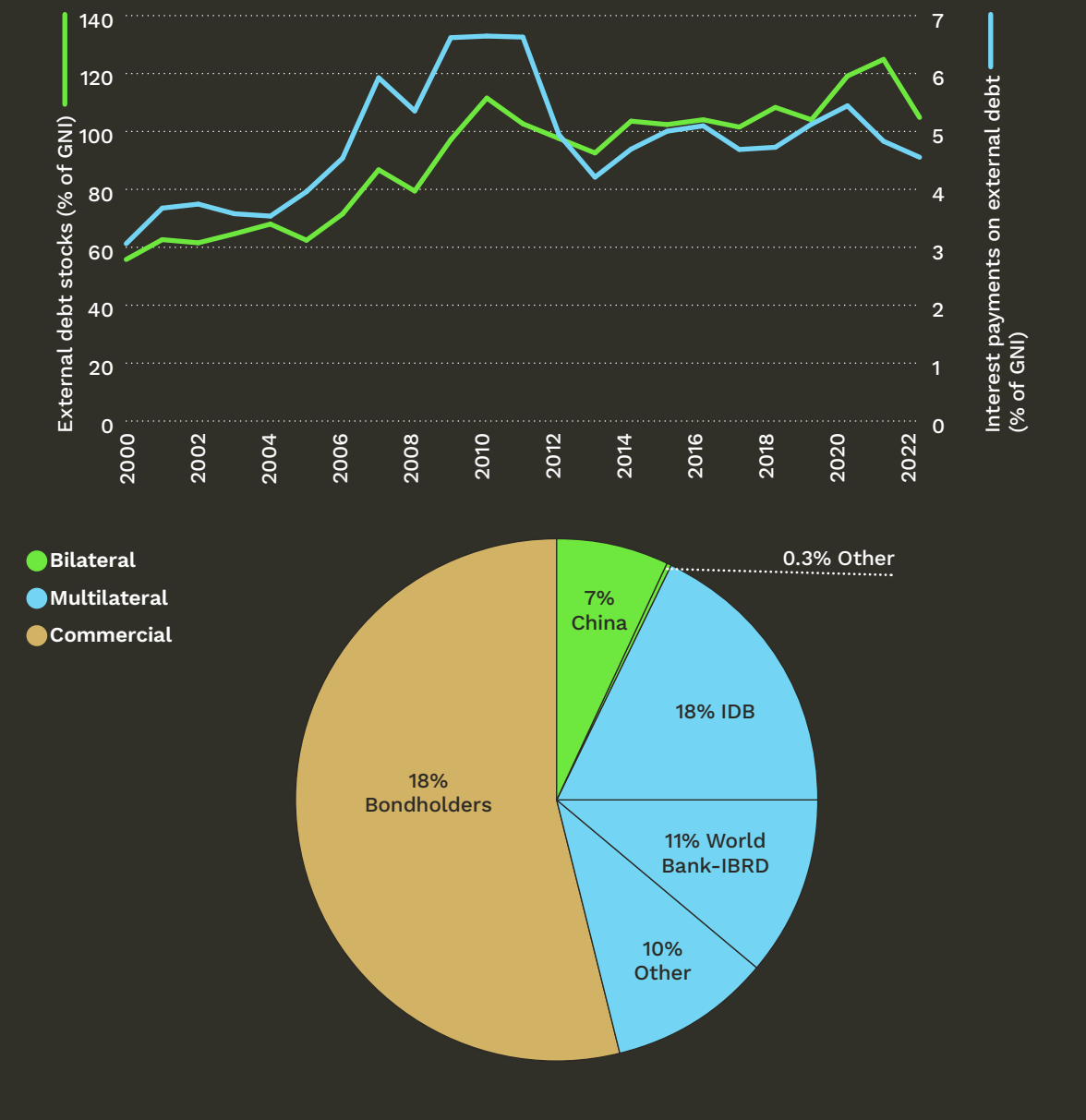
program. Economic growth stagnated, hovering below 2% until the onset of the Covid-19 pandemic.⁷⁹


Like other SIDS, Jamaica's small size, narrow export base, volatile currency and high borrowing costs contribute to structural economic vulnerability. The economy is heavily dependent on nature – tourism accounted for 29.1% of GDP before the Covid-19 pandemic struck,⁸⁰ and agriculture and fisheries account for another 9%⁸¹ – and highly exposed to climate risks, ranking 92 (out of 185 countries) on ND-GAIN.⁸²

The damage caused by Hurricane Beryl in July 2024 serves as a reminder that Jamaica remains structurally very vulnerable to climate-related shocks, which are only going to become more frequent and severe as average global temperatures rise. Therefore, investing in climate adaptation and resilience is an important element of prudent macroeconomic and fiscal policy. Such investments would complement Jamaica's efforts to manage its debt sustainably and prepare for future environmental disasters. Specifically, Jamaica has increased the budget allocated to its disaster funds, setting aside JMD 1 billion (\$6.4 million) for the fiscal year 2024/2025 (five times more than previous years).⁸³ It has also deployed a range of disaster risk financing instruments to ensure liquidity following a crisis, including insurance, contingency financing and catastrophe bonds.

Figure 10. External debt stocks and interest payments on external debt (% of GNI) (top) and public and publicly guaranteed debt by creditor and creditor type (bottom)

Source: World Bank (2024)⁸⁴





3. The virtuous circle:

low-emission,
climate-resilient
and nature-positive
development

Image: Maurizio Di Pietro/
Climate Visuals Countdown



3.1 Envisioning the virtuous circle

Debt is a tool required by all countries to finance the public investment and spending that underpins economic growth and human development. In turn, economic growth enables the repayment of debt. But to avoid the impacts of nature loss and climate change eroding past development gains and slowing future growth, countries' growth models now need to be climate-resilient, low-carbon and nature-positive.

Most governments aspire to 'green growth', 'sustainable development' and other comparable ideals. International economic institutions have also increasingly called for a shift to more environmentally sustainable trajectories.⁸⁵ These ambitions recognize the importance of the Earth's life support systems to long-term human wellbeing, and the damage caused by prevailing modes of economic development. The route to achieving low-emission, climate-resilient and nature-positive development will look very different across EMDCs, depending on factors such as their geography, climate and resource endowments; income levels and inequalities; economic composition and size; infrastructure stock; governance arrangements and capacities; and cultural norms and behaviors. With international support, lower-income countries may be able to leapfrog into green growth models with clean, resilient infrastructure and extensive nature protection; higher-income countries will likely need to retrofit, refurbish and replace infrastructure as well as restore degraded lands and ecosystems.

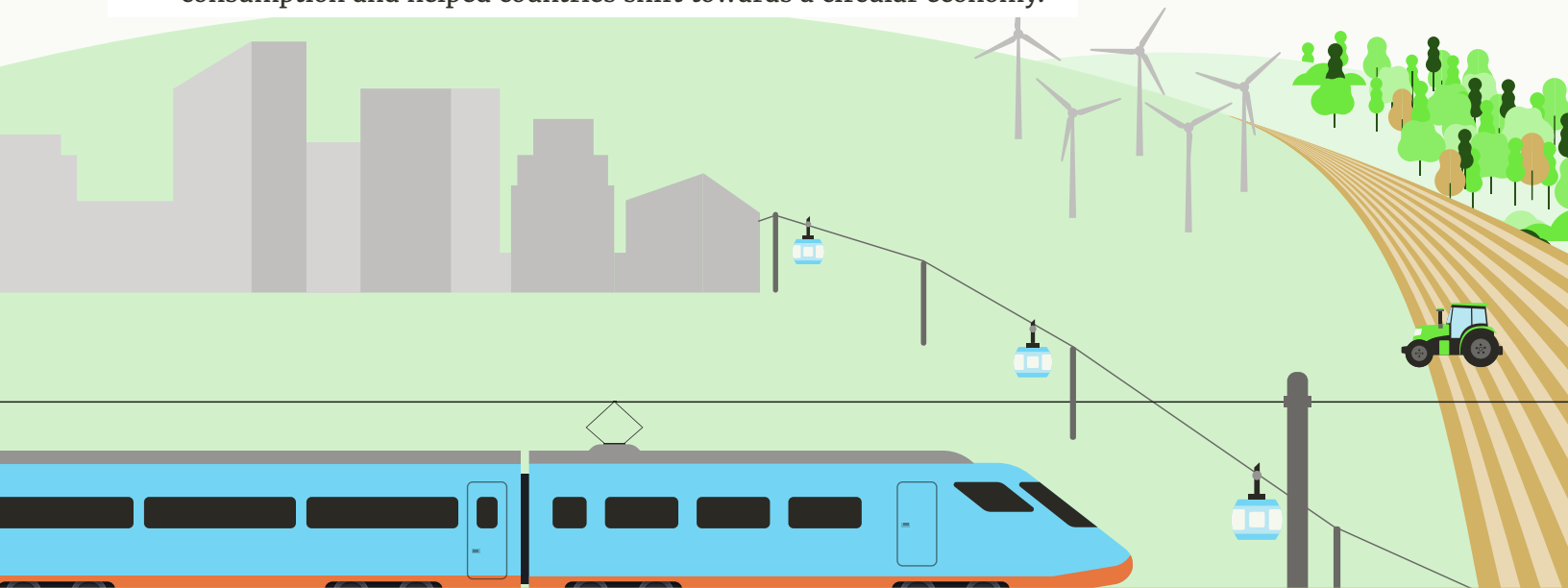
Pursuing green growth demands profound changes to our societies and economies. If managed well, it potentially offers immense benefits in terms of better public health, greater energy and food security, large-scale job creation and increased economic dynamism (Figure 11). Realizing these broader benefits can in turn help to build public interest and support for climate and nature transitions, creating incentives for governments and businesses to further strengthen critical capacities and stimulate more innovation and learning. Efforts to protect nature, cut emissions and enhance resilience also reduce the extent and impact of future nature- and climate-related shocks and stresses, lowering response and recovery costs. Countries will therefore have more fiscal headroom for further investments in greener and more resilient growth, enabling a 'virtuous circle'.

With international support, lower-income countries may be able to leapfrog into green growth models with clean, resilient infrastructure and extensive nature protection; higher-income countries will likely need to retrofit, refurbish and replace infrastructure as well as restore degraded lands and ecosystems.

Figure 11. A vision for a green economy

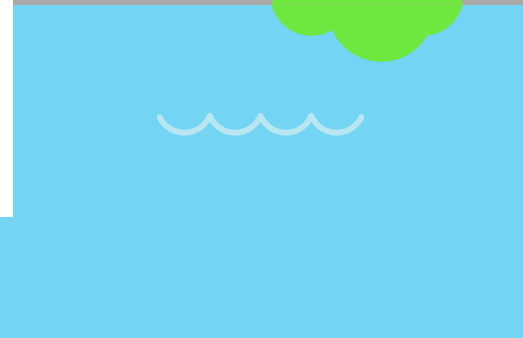
The industry sector

- Electrification and optimization have driven down industrial greenhouse gases and other pollutants.
- Technological and process innovations have enabled further gains from hard-to-abate sectors, such as aluminum, aviation, cement and iron and steel.
- Changes in demand and behaviors have reduced material consumption and helped countries shift towards a circular economy.



The transport sector

- Neighborhoods and cities are connected by mass transit systems, such as rail, bus and cable car.
- Pedestrian and cycling infrastructure is safe and extensive, lowering transport expenditure and encouraging physical activity.
- All vehicles are electrified so streets are quieter and cleaner. Private vehicles are a second-best option for urban residents because the alternatives are cheap and convenient.



The electricity sector

- Electricity is generated by clean sources of power such as hydropower, geothermal, wind and solar, reducing air and water pollution.
- A high share of intermittent renewables is managed through a more sophisticated transmission and distribution system, plus improved storage capacity.
- Any remaining fossil fuel generation capacity is abated.

The land use sector

- Agricultural land, fisheries and forests are managed sustainably to ensure their long-term productivity and resilience, enhancing food security.
- Protected areas have been expanded to conserve at least 30% of terrestrial, freshwater, coastal and marine ecosystems, halting species extinction.
- Formerly degraded ecosystems are being effectively restored to enhance biodiversity and ecological integrity.
- Urban areas have high but livable density, with green and blue spaces where people can relax and nature can thrive.

The buildings sector

- Buildings are comfortable and cheap to run because they have been retrofitted or constructed to be more energy-efficient, taking advantage of natural lighting and ventilation.
- Heating and cooking have been electrified, improving indoor air quality. Many buildings have rooftop solar and rainwater tanks.
- Informal settlements have been upgraded so that residents have secure tenure, clean drinking water, safe sanitation, decent housing and other risk-reducing services and infrastructure.



While low-emission, climate-resilient and nature-positive development is the ‘only growth story of the 21st century’,⁸⁶ there are inevitably trade-offs. Radically different production and consumption patterns are likely to create stranded assets, stranded workers and stranded communities. Governments need to prepare for the transition carefully to ensure it is orderly and inclusive, facilitating dialogue among key stakeholders, investing in economic diversification, supporting re-skilling and providing targeted social protection to those most affected.⁸⁷ Without such measures, the shift to green growth will face legitimate backlash – but such measures require increased public investment and spending, which is difficult for highly indebted countries.

Governments also need to anticipate any adverse impacts on their own balance sheets, particularly in countries that are very dependent on nature depletion or fossil fuel extraction. Such impacts might include falling public revenues from declining exports, increased spending on social services and higher liabilities from state-owned enterprises holding stranded assets. A disorderly transition will have still greater impacts. For example, banks with too many non-performing loans or pension funds and insurance companies with significant stranded assets may be unable to meet their obligations, which may then be passed on to the public sector. High and unsustainable levels of debt will make it harder for governments to absorb these contingent liabilities.

The shift to a low-emission, climate-resilient and nature-positive economic model will have higher upfront investment needs than continuing a business-as-usual trajectory. While these investments are expected to generate high positive externalities (not least by limiting the extent of climate change and ecosystem collapse) and in many cases commercially attractive returns, countries with high capital costs and limited fiscal space will not be able to mobilize the necessary resources to finance the transition. In [Table 1](#), we present estimates of the incremental investment needs from three sources: the Independent High-Level Expert Group, the Intergovernmental Panel on Climate Change and the Waldron Report. While the numbers in [Table 1](#) are large, the costs of inaction are much greater.

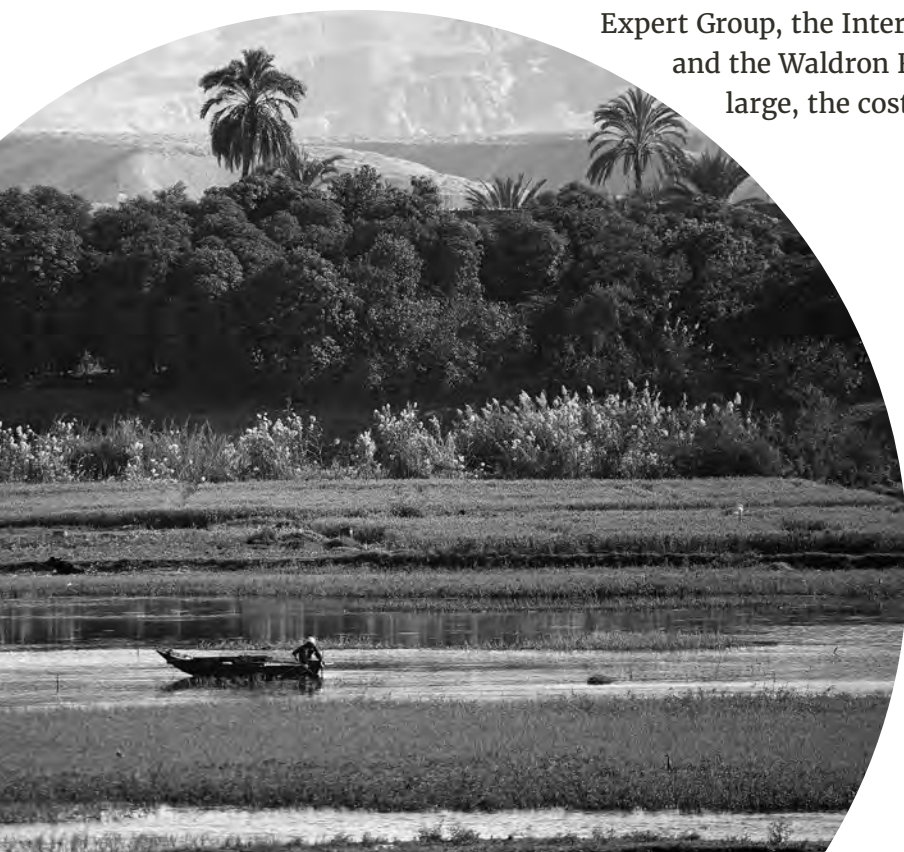


Table 1. Estimated costs associated with protecting climate and nature.

Independent High-Level Expert Group on Climate Finance (the Stern-Songwe report)	Intergovernmental Panel on Climate Change	The Waldron Report
Geographic scope		
EMDCs excluding China	Developing countries	EMDCs
Climate mitigation		
\$1.33–\$1.81 trillion a year by 2030, of which \$540–\$660 billion would be additional to development needs ⁱ	\$489–\$728 billion a year (1.5°C, 2023–2032) \$393 billion a year (2°C, 2023–2032)	N/A
Climate adaptation		
\$200–\$250 billion a year by 2030	\$127 billion a year by 2030, \$295 billion a year by 2050	N/A
Nature conservation and recovery		
\$275–\$400 billion a year by 2030	N/A	\$71–\$161.5 billion a year ⁱⁱ
Sources		
Songwe et al. (2022) ⁸⁸	Kreibiehl et al. (2022); ⁸⁹ New et al. (2022); ⁹⁰ and Riahi et al. (2022). ⁹¹	Waldron et al. (2020) ⁹²

3.2 Financing the virtuous circle

To meet the investment needs of the virtuous circle, countries will need to unlock a wide range of financing sources.

Domestic resource mobilization is critically important to fund recurrent spending and maintain creditworthiness. Bhattacharya et al. (2022)⁹³ estimate that nearly half the incremental financing required for development, climate and nature needs to come from domestic public resources. They calculate that this implies incremental domestic resource mobilization of around \$650 billion a year, equivalent to 2.7% of EMDCs' GDP. Improving domestic resource mobilization hinges on two elements. First, many

i Songwe et al. (2022) estimate that the energy transition will cost \$1.29–\$1.75 trillion, of which \$500–\$600 billion would be additional. We have also included the estimated costs of reducing methane under climate mitigation, which Songwe et al. estimate at \$40–\$60 billion.

ii The Waldron Report estimates total investment needs of \$103–\$177.5 billion a year, of which 69–91% would be required in low- and middle-income countries.

EMDCs have scope to improve tax capacity. On average, EMDCs have significantly strengthened their tax capacity since the early 1990s, but 41 out of 75 IDA-eligible countries still have tax revenues below 15% of GDP.⁹⁴ Second, many EMDCs have scope to improve spending efficiency and effectiveness. Low-income countries lose more than half of the returns on their investments due to inefficiencies in their management processes (e.g. weak project design, evaluation and selection), while emerging markets lose about a third.⁹⁵ Improvements in public financial management systems can therefore significantly close the investment gap.

National governments can also reform their fiscal policies to advance climate and nature goals. Carbon prices generated \$1.1 billion in EMDCs in 2023 (out of \$104 billion globally),⁹⁶ reflecting growing efforts to send an appropriate price signal and generate resources for climate- and nature-related investment. On the other hand, explicit fossil fuel subsidies in EMDCs (excluding China) reached \$604.7 billion in 2022.⁹⁷ Other environmentally harmful subsidies flow to the agriculture, forestry, marine fishery and water sectors.⁹⁸ Reducing these subsidies could free up significant fiscal space to finance the virtuous circle and improve debt sustainability.

International concessional finance (including grants) has a catalytic role to play in enabling countries to shift into a virtuous circle. Concessional finance buttresses domestic resource mobilization through technical assistance and capacity-building. It also enables countries to raise and steer international public and private finance provided at market rates by de-risking investments in development, climate and nature. Concessional finance is also essential to support the provision of global public goods, including those required to respond to environmental crises. Bhattacharya et al. (2022)⁹⁹ estimate that 15% of the incremental spending target for low- and lower-middle income countries needs to come from international concessional finance. They estimate that this implies an incremental increase of bilateral and multilateral concessional finance of \$96 billion by 2025, a 50% increase over 2019 gross figures.

Given its critical importance, a global effort is currently under way to increase the supply of international concessional finance for

EMDCs. Reform of the multilateral development banks (MDBs)

is perhaps the most advanced of these agendas, with ambitions and proposals to expand total lending to \$390 billion a year.¹⁰⁰

Much attention has also been paid to the question of whether and how Special Drawing Rights (SDRs) – issued by the

International Monetary Fund (IMF) in response to the liquidity crunch during the Covid-19 pandemic – could be deployed to unlock concessional finance for EMDCs.

Achieving the SDGs and the goals of the Paris Agreement and Kunming-Montreal Global Biodiversity Framework therefore also depends on mobilizing domestic and international private finance at unprecedented scale. While domestic public finance and international concessional finance have critical roles to play,

Achieving the SDGs and the goals of the Paris Agreement and Kunming-Montreal Global Biodiversity Framework also depends on mobilizing domestic and international private finance at unprecedented scale.

these finance sources are clearly insufficient to meet the investment needs outlined in [Section 2.1](#). Bhattacharya et al.¹⁰¹ estimate that EMDCs will need an additional \$1 trillion a year of private investment, mostly for clean energy assets. There have been concerted efforts to mobilize private finance for development for decades, notably in the Addis Ababa Action Agenda developed in parallel with the SDGs. However, a renewed attempt is under way which rests upon three pillars: enhancing enabling environments in EMDCs, strengthening private sector engagement by MDBs¹⁰² and bilateral development finance institutions (DFIs) and addressing barriers facing international private investors.¹⁰³

EMDCs will need to strategically harness the complementary strengths of different pools of finance, with their different tenors, costs and sizes.¹⁰⁴ However, both policy and market factors currently pose obstacles to the development and implementation of a credible investment strategy for green growth.

First, the high cost of capital in EMDCs. National governments can do much to bring down the cost of capital through improving the efficiency and accountability of bureaucracies, the clarity of legislation and regulation, the simplicity of business procedures, the protection of property rights, the enforcement of contracts or effectiveness of grievance mechanisms. While wholly possible, it takes far-sighted, committed and courageous leadership over many years to make a meaningful difference. However, there are other risks that are much more challenging for national governments to manage (particularly for smaller and less diversified economies), such as price and currency volatility or the balance of payments. More effective and systematic exchange rate hedging will be critical for reducing the cost of capital and thereby tackling indebtedness.

Second, the short maturities of many debt instruments. Currently, commercial banks and financial markets typically offer EMDC governments financing with a tenor of up to 10 years. However, infrastructure investments such as hydropower plants, mass transit and grid upgrades ([Figure 11](#)) may take this long to plan and build, though they will then generate returns for decades. There is therefore a need to nurture the market for sovereign debt instruments with longer maturities that will allow countries to realize more of the returns on their investments, enabling repayment. The issuance of 30-year (Angola in 2019, Côte d'Ivoire in 2018, Ghana in 2019, Kenya in 2018, Nigeria in 2021, Senegal in 2018, South Africa in 2019) and 40-year bonds (Ghana 2020)¹⁰⁵ demonstrated that private investors were willing to support long-term financing across sub-Saharan Africa. However, these developments were subsequently superseded by the external shocks of the early 2020s, which pushed many of these countries into a vicious circle of indebtedness and vulnerability, rendering the cost of debt with long maturities unaffordable again.

An alternative economic model – a virtuous circle – is both feasible and attractive. However, it will only be possible through reforms to the global debt architecture. In the next chapter, we offer some recommendations on one pillar of that architecture: the Debt Sustainability Analyses conducted by the IMF and the World Bank.



**4. Debt
Sustainability
Frameworks
amid the
climate and
nature crises**

4.1 Why do Debt Sustainability Frameworks matter?

Debt Sustainability Frameworks (DSFs) provide a template that the IMF and the World Bank use to analyze the risk that a country may experience a debt distress event within a given time horizon. The resulting assessments are called Debt Sustainability Analyses (DSAs). A debt distress event may occur for solvency or liquidity reasons. A sovereign government is considered insolvent when there are no economically feasible or socially acceptable policies which would allow it to meet its debt obligations. A sovereign government is considered illiquid because it is unable to roll-over its debt obligations: the sovereign could potentially remain solvent if it found a willing lender at reasonable rates, but lack of access to new sources of funds leads to default. Climate and nature-related shocks and stresses can affect both liquidity and solvency, while investing in resilience can reduce those risks.

The risk of debt distress is estimated by (i) forecasting a country's key macro-financial variables, including economic growth, fiscal policy, interest and exchange rates, access to financing; (ii) obtaining the evolution of key debt indicators as a result (debt service and debt stock with respect to GDP, exports and fiscal revenues); and (iii) comparing those projections with the estimated debt-carrying capacity of the country. The DSF also includes a variety of stress tests to determine a country's capacity to absorb and respond to large shocks such as natural disasters, changes in commodity prices or depreciation.

There are two DSFs in use: one for low-income countries and one for countries with access to capital markets. The Debt Sustainability Framework for Low Income Countries (LIC-DSF), which is jointly conducted jointly by the World Bank and the IMF, applies to countries eligible to use the IMF's Poverty Reduction and Growth Trust (PRGT). It assesses the probability of debt distress based especially on risks stemming from external debt. The Sovereign Risk and Debt Sustainability Framework for Market Access Countries (MAC-SRDSF) defines debt sustainability as the ability to stabilize debt in the medium-term with acceptably low risk of roll-over crisis (within 5 years). The IMF is typically in charge of conducting the MAC-SRDSFs.

Climate and nature-related shocks and stresses can affect both liquidity and solvency, while investing in resilience can reduce those risks.

DSAs are of critical importance for two reasons.

1 **DSAs determine whether EMDCs can access financing from the IMF, World Bank and others.** A country whose debt is assessed as “unsustainable” will be barred from receiving IMF assistance, unless measures are put in place to restore debt sustainability. For low-income countries, a classification of “high risk of debt distress” implies more scrutiny by prospective creditors (including the IMF and concessional lenders). In addition, such a classification will also lead to more debt-related conditions (or “policy actions”) under the World Bank’s Sustainable Development Finance Policy, designed to restore or maintain debt sustainability and address underlying economic vulnerabilities. Even for countries under simple “surveillance” (i.e. not under an IMF program), the DSA indicates to prospective and current creditors how much additional debt they can incur before triggering risks.

2 **DSAs determine the extent of debt relief when a country is in debt distress.** Once a country has defaulted, it needs to restore debt sustainability by seeking debt restructuring, either on forthcoming debt payments or on the debt stock. Debt restructuring is a precondition for receiving financial assistance from the IMF. The level of debt deemed sustainable, and thus the quantum of debt relief the country should seek from its creditors, is determined by the parameters set by the DSF.

It is important to stress that the DSA is one of several tools to guide macro-fiscal decisions and assess countries’ creditworthiness. Countries have their own debt rules, Medium-Term Debt Management Strategies (MTDS) and other frameworks that shape their fiscal choices. Meanwhile, private investors will generally make decisions based on the assessments of credit rating agencies. However, DSAs remain central, especially for low-income countries, as they shape the decisions and terms of international financial institutions.

The medium- to long-term time horizon of the DSA is essential.

Countries typically commit to 3–5 years of targets as part of an IMF program, while creditors have a natural incentive to focus on the tenor of their loan. A key role of the DSA is thus to discipline this bias by providing long perspectives, even acknowledging uncertainty on future trends. The current LIC-DSF has a horizon of 20 years, although most of its charts and analyses stop at 10 years. The more recent Sovereign Risk and Debt Sustainability for Market Access Countries (MAC-SRDSF) focuses on a 5 year horizon but includes two climate change modules with a longer time horizon up to 30 years. While these long-term projections are very uncertain, highlighting long-term risks and future fiscal pressures within a DSA can help to mitigate short-termism.

While 30-year projections may be very uncertain, highlighting long-term risks and future fiscal pressures within a DSA can help to mitigate short-termism.

4.2 How are climate and nature currently considered in DSAs?

The LIC-DSF and the MAC-SRDSF adopt different approaches to climate-related risks, with the MAC-SRDSF integrating climate considerations in a more comprehensive way. Neither meaningfully addresses emerging nature-related risks.

Climate-related risks have been largely ignored in the LIC-DSF until very recently. Since 2017, the LIC-DSF has considered environmental disasters for selected countries based on historical data. The reliance on data on past shocks – as opposed to forecasts of more frequent and severe shocks – means that the incremental impacts associated with climate change and nature loss are not appropriately captured in its economic projections.

In July 2024, the IMF and the World Bank updated their guidance for the LIC-DSF, in anticipation of the broader reform of the framework scheduled for 2025.¹⁰⁶ Country teams have now been instructed to forecast how the impacts of climate change will affect baseline economic growth and volatility, and how climate policies will counter these effects. Forecasts are expected to include the impacts of both rapid-onset events, like storms and floods, and slow-onset events, like desertification and sea-level rise.

These climate assessments are now mandatory in some cases, and recommended in others. The new guidance partially reflects existing practices, as countries expected to experience particularly outsized climate-related impacts have already been subject to such analyses. The World Bank, which oversees the long-term modelling of LIC-DSAs, included some discussion on climate change in two-thirds of its recent DSAs, including 13 of 18 documents for SIDS. In rare cases, feedback loops between investment in adaptation and improved economic resilience have also been included in recent DSAs.¹⁰⁷

The MAC-SRDSF considers climate change as part of its long-term (30-year) economic forecasts through its climate modules. The climate adaptation sub-module is mandatory for climate-vulnerable countries, countries requesting a Resilience Sustainability Trust (RST) program from the IMF and countries going through debt restructuring. It considers the long-term costs of climate change on fiscal balances over the long run (including the impact of climate-induced hazards on public spending and revenues, and the higher spending needs due to adaptation). The climate mitigation sub-module captures the impact on debt sustainability of the non-negligible upfront investment required for a low-carbon transition.

Despite these improvements, two shortfalls remain:

- 1 There is limited transparency and homogeneity in the data, hypotheses and methods used when climate change and risks to nature are integrated into the DSAs.** Significant efforts are underway to develop the knowledge base and modelling techniques necessary, such as the World Bank's Country Climate and Development Reports (CCDRs). However, climate and transition scenarios are necessarily country-specific, leading to risks of inconsistent treatment across countries. Risks to nature, on the other hand, remain largely ignored, despite

growing evidence that biodiversity loss and ecosystem degradation can have macro-relevant impacts.

- 2 **DSAs are limited in the way they account for the impact of proactive climate policies on future growth.** The ways investments in resilience, adaptation and ecosystems stability are considered in DSAs are either unclear or depend on arbitrary assumptions. For example, in the MAC SRDSF, it is assumed that adaptation investment exactly offsets the negative long-term impact of climate change on growth.¹⁰⁸

These two shortfalls need to be more explicitly considered by transparently indicating hypotheses and key parameters of the assumed relationship between climate change and the macro-fiscal framework and through closer attention to nature-related risks.

4.3 What would be the consequences of including nature loss and climate change more systematically in the DSFs?

Nature loss and climate change will affect debt sustainability, and DSFs need to capture these effects. Nature- and climate-related shocks and stresses will have increasingly large effects on macroeconomic and fiscal variables. Impacts can be transitory but may have persistent and broad-based consequences for a country's long-term growth prospects. Moreover, uncertainty about the impacts will also grow over time. A stable climate and biosphere underpin all economic activity but – as the atmospheric concentration of greenhouse gases grows and biodiversity loss and ecosystem degradation continue – it becomes more likely that Earth systems will pass tipping points or enter feedback loops, leading to non-linear, self-amplifying and irreversible changes. Greater uncertainty poses greater risks for investment. The implications of nature loss and climate change for debt sustainability will vary among EMDCs depending on their vulnerability to environmental shocks and stresses, and on their access to affordable financing.

DSAs that only consider the adverse impacts of the global environmental crises will not create the right incentives for long-term debt sustainability. Nature loss and climate change will increase macroeconomic and fiscal volatility, requiring countries to build additional fiscal and external buffers (e.g. larger budget surpluses, higher current account surpluses and pre-arranged disaster risk financing) to ensure liquidity in the event of environmental shocks and stresses. A DSA that incorporates such considerations would thus conclude that countries are less creditworthy. But this is only one side of the coin.

DSAs also need to account for the economic and fiscal benefits of measures to enhance resilience, protect ecosystems and cut emissions. Policies and investments that respond effectively to the nature and climate crises will reduce losses over the medium and long run. Delayed investments will increase the physical impacts of climate change and nature loss. While near-term exposure to transition risks may

be heightened by more ambitious efforts to mitigate and adapt to climate change and nature loss, an unplanned and disorderly transition down the line will have much graver economic, social and fiscal consequences. DSAs therefore need to consider a country's efforts to reduce its vulnerability to physical and transition risks, factoring in how the associated fiscal savings and improved macroeconomic stability improve its long-term debt profile.

EMDCs face a trade-off: early investment in resilience can limit future losses, but at the expense of higher gross financing needs in the near-term. The sources of that finance and terms on which it is secured will influence countries' debt sustainability. A combination of access to more affordable finance and DSF reform to take account of improvements in adaptive capacity can therefore help to ensure long-term debt sustainability by enabling and incentivizing investments in resilience.

4.4 Recommendations: Making DSAs climate- and nature-smart

We offer three recommendations to the IMF and the World Bank.



Recommendation 1

Incorporate climate-related risks and measures to reduce them.

DSA should clearly and consistently incorporate the projected impacts of climate change, including both rapid onset shocks and slow onset stresses, in their underlying baseline macroeconomic and fiscal projections. The analysis should encompass higher potential liquidity risks stemming from environmental shocks, as well as solvency risks stemming from a deterioration in forecast economic growth rates and fiscal positions. The analysis should also account for the likely fiscal savings and greater economic stability associated with pre-arranged disaster risk financing, investments in resilience and other climate actions.

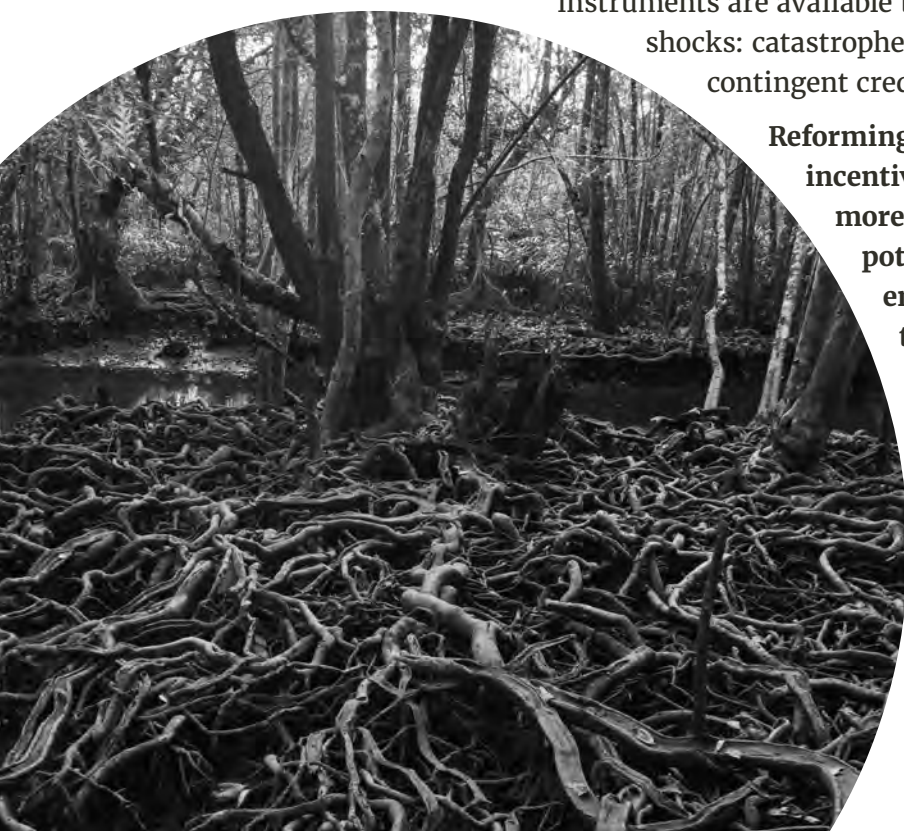
The IMF and the World Bank should account for the adverse impacts of climate change in their macroeconomic and fiscal projections, in a transparent and consistent manner. In addition to the supplementary guidance already in place for the DSAs, further guidance is needed to help IMF and World Bank country teams to include the transition and physical risks into macroeconomic projections. Consistency across countries can be achieved by relying on externally defined, science-based scenarios, for example those developed under the Network for Greening the Financial System (NGFS). Since a majority of models have historically underestimated the severity of climate-induced impacts in important sectors,¹⁰⁹ the World Bank and IMF should ensure they are drawing on recent modelling efforts that are more likely to capture the likely damages.

Better data collection and analysis will be needed to ensure that climate and economic models are appropriate for country-specific contexts. The World Bank’s CCDRs are a valuable resource, spanning both mitigation and adaptation. Improved data and analysis will enable IMF and World Bank country teams to more robustly estimate the probability and intensity of environmental shocks and stresses, the associated losses and liquidity risks, and the long-term impact on economic and fiscal performance.

Without accounting for policies and investments to enhance resilience, reformed DSAs will reflect that climate change is likely to lead to a deterioration of creditworthiness. The increased frequency and severity of climate-related shocks and stresses is already imposing significant losses and curtail economic growth on EMDCs, thereby affecting their governments’ ability to repay debt. This could lead to the vicious circle described in [Chapter 2](#), whereby DSAs and private credit ratings deteriorate, restricting countries’ access to credit and therefore their ability to invest in low-emission, climate-resilient development. Such self-reinforcing dynamics may take time to materialize, but the case studies above illustrate that the seeds are already in place. In the same way that they assess the adequacy of fiscal and external buffers, DSAs should capture the benefits associated with investments in adaptation, for example in models such as the IMF’s Debt-Investment-Growth and Natural Disasters (DIGNAD). The IMF and the World Bank have both shown that such investments yield high returns and multipliers.¹¹⁰ Again, undertaking country-specific analyses will benefit from more systematic data collection on the effects of different adaptation measures at the national level.

DSAs should provide an in-depth analysis of liquidity risks stemming from nature- and climate-related risks, which would in turn enable an assessment of the adequacy of pre-arranged disaster risk financing and adaptation investments. The impact of environmental shocks and stresses is likely to become increasingly disruptive, and a large source of liquidity risks. Proven and innovative financial instruments are available to cushion the impacts of external shocks: catastrophe bonds, climate-resilient debt clauses, contingent credit lines, insurance pools, and so on.

Reforming the DSAs in this direction would incentivize countries to shift towards more climate-resilient development and potentially lower the cost of capital by enabling investors to appreciate the trade-off between higher spending and public debt in the short-term versus lower fiscal deficits, lower public debt and higher, more stable economic growth in the medium- to long-term.





Recommendation 2

Incorporate nature-related risks and measures to reduce them.

DSAs should start to incorporate the risks associated with nature loss in their underlying baseline macroeconomic and fiscal projections. Improved data collection and modelling will be necessary to do so robustly. The analysis should also account for the economic and fiscal benefits associated with nature protection and recovery.

The IMF and the World Bank should explicitly account for the economic and fiscal fallout from biodiversity and ecosystem loss in DSAs. The IMF has started to incorporate climate-related risks into its key surveillance and monitoring exercises, including Article IV consultations, Financial Sector Assessment Programs, and the DSF. But it has so far stopped short of attempting to introduce biodiversity and nature-related risks into its analytical frameworks. Yet the impact of ecosystem service collapse on public debt and financing requirements in EMDCs could dwarf the fallout from standard macroeconomic shocks (shocks to primary balance, growth or interest and exchange rates).¹¹¹ This explains why news on nature losses can be perceived by private investors as indicating a rising risk of debt distress.¹¹² The omission of nature-related risks could lead DSAs to misdiagnose the true state of debt sustainability, leading to erroneous policy recommendations and a higher risk of avoidable debt crises. By including the projected impacts of nature losses, DSAs could incentivize countries to build fiscal buffers and take other steps to manage such risks.

DSAs should also incorporate the anticipated benefits of investments in nature protection and nature recovery. The conservation and restoration of natural capital can reduce the risks of large losses, while improving long-term growth prospects through enhancing resilience and productivity.¹¹³ As with climate change in the DSAs, better accounting for policies and investments that protect biodiversity and ecosystems would incentivize countries to shift towards more nature-positive development.

Accounting for the risks associated with nature loss and the benefits associated with nature protection in DSAs will require better data and more robust models. The evidence on the economic and fiscal impacts of nature loss, protection and recovery remains relatively weak even at the global level; it is poorer again in most EMDCs. By developing a global macroeconomic model that is linked to a suite of science-driven environmental economic models of ecosystem service provision, the World Bank has laid the groundwork for incorporating scenarios for the macroeconomic consequences of nature loss into DSAs.¹¹⁴ But more needs to be done to ensure that nature is effectively integrated into DSFs.



Recommendation 3

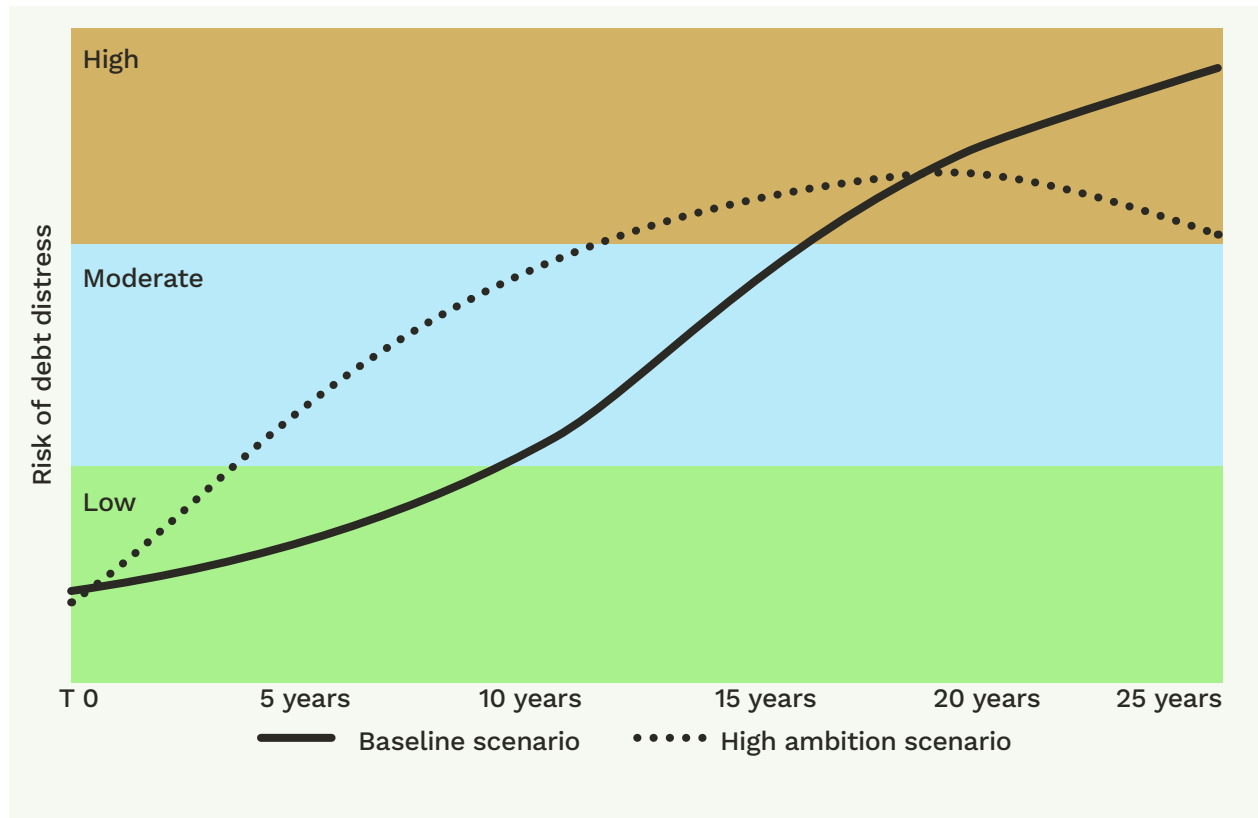
Make greater use of different environmental and financing scenarios.

DSFs should make more extensive use of different climate and nature scenarios, including ones with early and ambitious investments in resilience, nature protection and avoided emissions. These scenarios could illustrate how different financing sources and terms for those investments may affect debt sustainability over various time horizons. In data-poor contexts, an alternative approach might be to put a lower weight on debt incurred for climate and nature-related investments, if its implementation can be verified.

The preparation of alternative scenarios illustrating the potential effects of high ambition on climate and nature action would be a useful guide to EMDC governments and their creditors. This is not usual practice of DSAs: the IMF and the World Bank are instructed to make “projections based on policies already in place and (...) likely to be implemented” within a five-year horizon. As a result, a country that wants to invest in resilience but has limited access to the required financial resources could be stuck in a low-investment, low-growth, high-vulnerability equilibrium: the vicious circle. Such a scenario could serve as a baseline for the DSA, but the IMF and the World Bank should also offer scenarios that project the impacts of adaptation investments financed from different sources and on different terms.

The development of alternative scenarios would illuminate potential trade-offs for decision-makers. On the one hand, countries could have smaller fiscal deficits/larger fiscal surpluses in the short-term (which reduces the near-term risk of debt distress), but face greater vulnerability to climate shocks over longer time horizons. On the other, they could run larger fiscal deficits/smaller fiscal surpluses in the short-term (which increases the near-term risk of debt distress), but reduce their vulnerability to nature and climate shocks over longer time horizons. A stylized illustration is presented in Stylized representation of debt-to-GDP ratios under alternative scenarios. The results would obviously vary country by country, subject to the effectiveness of adaptation investments and the financing terms available. The comparison of debt sustainability in the baseline scenario anchored in “likely policies” and more ambitious scenarios could help governments and their creditors to craft appropriate investment strategies.

Figure 12. Stylized representation of debt-to-GDP ratios under alternative scenarios



In cases where data limitations render credible modelling difficult, alternative analytical approaches could be used, including reducing the weight of debt incurred for climate and nature investments with high expected returns. Such an approach would be restricted to countries where the evidence gap precludes credible assumptions about the impacts of climate- and nature-related investments on economic growth, public revenues and exports. In such cases, a simpler approach is required. One option is to use weights on debt with growth returns – i.e. changing the numerator (debt stock) rather than the denominator (GDP). Such an approach would be akin to financial management practices, where weights are used to estimate capital at risk. Projects with resilience benefits would need to be unambiguously identified to be accorded lower weights.

With these three recommendations, the DSFs would be better equipped to incorporate nature- and climate-related risks, the benefits of climate- and nature-related investments, and the ways that both will be mediated by the sources and terms of finance available. Those trade-offs need to be anchored in well-defined and consistent scenarios that can support effective and far-sighted decision-making by both the governments of EMDCs and their creditors. Such reforms should be feasible even where data are scarce and serve to advance the DSF’s own ambition: “to support efforts by LICs to achieve their development goals while minimizing the risk that they experience debt distress.”¹¹⁵



5. Next steps

In this first report of the Expert Review on Debt, Nature and Climate, we have presented a diagnostic of the triple crisis. Our analysis and consultations show that many EMDCs have entered a vicious circle of indebtedness and vulnerability; others teeter on the brink. Lack of fiscal headroom is precluding EMDCs from investing in more sustainable and resilient development paths. Inaction today will increase the severity and frequency of environmental impacts tomorrow and compound the human and economic losses associated with them.

In response to the triple crisis, we offer three recommendations to reform the DSFs used by the IMF and the World Bank. The proposed reforms would ensure that DSAs better reflect the funding and financing needs of EMDCs in the context of the climate and nature crises. At the same time, the proposed reforms would allow creditors to better anticipate future risks, and tailor their financing terms accordingly.

Our recommendations are directed primarily at the staff, management and boards of the IMF and the World Bank. We urge these institutions to use the Spring Meetings in April 2025 to outline methodological reforms to DSAs to better reflect the resources needed for action on climate and nature, building on their review of the LIC-DSF.

We will present a second, more comprehensive report during the IMF/World Bank Spring Meetings in April 2025. That report will review a range of suggested reforms and financial instruments that have been made, which will be relevant not only to the international financial institutions, but also to borrowing countries, creditor countries, private financial institutions, credit rating agencies and other stakeholders. We anticipate that our recommendations will broadly fall into three categories:

- Whether and how countries can optimize their sovereign debt, complemented by enhanced domestic revenue mobilization and public finance management, to ensure sufficient funds for spending on nature protection and climate action, alongside other sustainable development priorities;
- 1 Specific measures to selectively reduce current debt burdens to provide additional resources for sustainable development (such as debt pauses for countries affected by environmental disasters or debt-for-nature and debt-for-climate swaps); and
- 2 Specific measures to ensure that future borrowing and lending redresses, rather than exacerbates, the triple crisis (such as expanding sustainability-linked debt and reducing resource-backed debt).

To this end, our consultation process remains open until January 2025.ⁱ We welcome contributions from individuals and organizations with experience and expertise in sovereign debt, nature and climate in EMDCs.

Through rigorously evaluating the many options that have been put forward to address the triple crisis, we aim to generate a set of recommendations that could collectively enable EMDCs to shift on to a virtuous circle: an economic growth model that generates the resources needed to invest in human dignity, productivity, sustainability and resilience while staying within planetary boundaries.

Our efforts are grounded in the certainty that reforming the global debt architecture to enable EMDCs to transition to low-emission, climate-resilient and nature-positive development is ultimately in the interests of both creditors and borrowers.

ⁱ Please submit inputs via <https://debtnatureclimate.org/consultation/>.



Engagement and consultation

The Independent Expert Group is grateful to the stakeholders who have engaged with the Review to date: Asian Development Bank, Emerging Markets Investment Association, Group of 24 (G24), Fitch Ratings, French Finance Ministry, German Finance Ministry, Government of Colombia, Government of Kenya, Institute of International Finance, Inter-American Development Bank, International Institute for Environment and Development, International Monetary Fund, Moody's Investor Service, Paris Club, S&P Global, Sustainable Debt Coalition, UN Economic and Social Commission for Western Asia, UN Environment Programme, US Treasury and the World Bank.

Secretariat

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