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Submission to the report on the doubling of adaptation finance

Submission to the Standing Committee on Finance in response to Decision 1/CMA.4, paragraph 42

Timo Leiter

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About this report

This is a submission to a call from the Standing Committee on Finance for information and data to inform the preparation of a report on the doubling of adaptation finance. The report was requested as part of the Sharm el-Sheikh Implementation Plan adopted at the UN COP27 climate conference, to inform further deliberations in the lead-up to COP28.

About the author

Timo Leiter (T.L.Leiter@lse.ac.uk) is a PhD candidate at the Grantham Research Institute on Climate Change and the Environment. He is a lead author of UNEP's Adaptation Gap Report and a contributing author to the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report, Working Group II on Impacts, Adaptation and Vulnerability.

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1. Informing the report on the doubling of adaptation finance

Context and aim of the submission

The Glasgow Climate Pact adopted at COP26 in November 2021 "*Urges* developed country Parties to at least **double their collective provision of climate finance for adaptation** to developing country Parties from 2019 levels by 2025" (Decision 1/CMA.3, paragraph 18). The subsequent conference, COP27, held in November 2022, was initially predicted to become an 'adaptation COP', but attention in fact shifted instead to funding arrangements for Loss and Damage (Leiter, 2022). The Sharm el-Sheikh Implementation Plan adopted at COP27 "*[r]equests* the Standing Committee on Finance to prepare a report on the doubling of adaptation finance" for consideration by COP28 (Decision 1/CMA.4, paragraph 42). Possible elements of the draft outline of the report were approved by the Standing Committee on Finance in March 2023.[1]

This submission responds to a call for inputs from the Standing Committee on Finance on "Information and data for the preparation of the report".[2] **It focuses primarily on three aspects contained in the draft outline:**

- **7.** Methods for measuring adaptation finance outcomes
- **11.** Effectiveness of adaptation finance:
  (d) The impacts of adaptation finance: selected insights and experience
- **13.** Description of key opportunities to at least double adaptation finance

The submission draws on research and policy analysis by the Grantham Research Institute, findings of the UN Environment Programme (UNEP)'s Adaptation Gap Report (to which the Grantham Research Institute is a key contributor), evidence from the scientific literature and experiences of international organisations that implement adaptation actions. It complements a submission to the work programme on the global goal on adaptation (Leiter, 2023).

Each section of the submission provides **key messages** for the report in regard to the three aspects listed above. The first key message is overarching, regarding the relationship between mitigation and adaptation and its implications for closing the adaptation finance gap:

> **Key message 1: The Adaptation Finance Gap cannot be closed without strong and fast reductions in greenhouse gas emissions.**

The World Meteorological Organization reported in June 2023 that "the world just had the hottest week on record" (WMO, 2023). Temperatures across the Mediterranean and North Africa, parts of North America, India and South East Asia reached above 40°C, and in some locations close to 50°C, breaking previous records. Extreme marine heatwaves described as "off the charts" were recorded in the North Atlantic ocean while "global average sea surface temperatures reached unprecedented levels for June" (Copernicus Programme, 2023). These extremes are occurring in the context of 1.1°C of global surface temperature warming in the decade 2010–2019 compared with 1850–1900 (IPCC, 2023, p.25). Yet, countries' climate pledges are projected to lead to more than 2.5°C[3] of global warming (UNFCCC, 2022), which would expose humanity and ecosystems to severe risks and the potential crossing of tipping points[4] in the climate system (IPCC, 2022a). Hence, while the recent extreme events once again highlight the need for adaptation, they also underscore the **absolute necessity of strong and fast reductions in global greenhouse gas emissions** if sufficient adaptation is to remain within reach, both technically and economically.

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1 https://unfccc.int/sites/default/files/resource/Doubling%20of%20AF_outline.pdf?download

2 https://unfccc.int/sites/default/files/resource/Call%20for%20inputs_x2AF_clean.pdf

3 "The best estimate of peak temperature in the twenty-first century (...) is in the range of 2.1–2.9 °C" (UNFCCC, 2022, paragraph 17).

4 See OECD (2022a) for a review of their policy relevance.

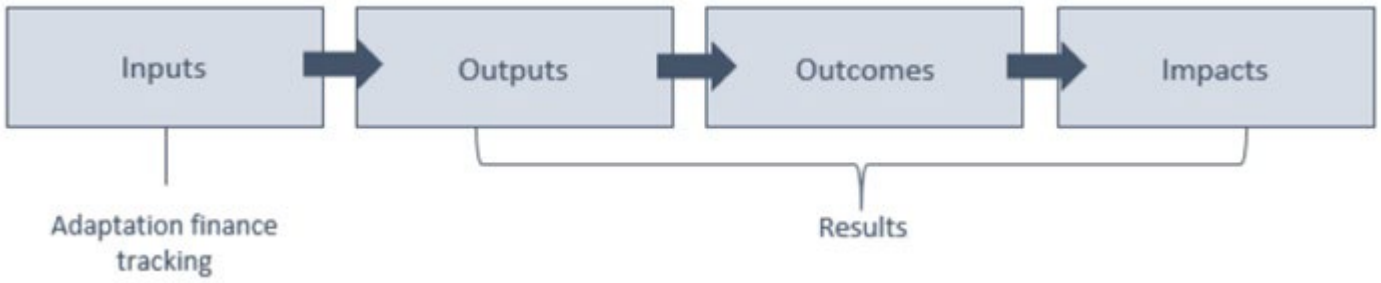
According to the latest IPCC report, global emissions would need to fall by more than 40% by 2030 relative to 1990 levels for a 50% chance of limiting warming to 1.5°C by 2100 (IPCC, 2022b). In contrast, the full implementation of countries' current climate pledges is estimated to result in less than 4% of emission reductions by 2030 relative to 1990 (UNFCCC, 2022). Without closing this gap in emissions reductions, **adaptation actions will likely be outstripped by accelerating climate impacts** even if adaptation efforts are significantly enhanced relative to today's efforts (UNEP, 2022). An overarching key message of central importance to the report therefore is that the adaptation finance gap cannot be closed without strong and fast reductions in greenhouse gas emissions.

2. Measuring adaptation finance outcomes

Tracking adaptation finance and measuring the results of adaptation actions

Tracking financial flows related to adaptation is essentially a matter of financial accounting and uses different methods from those used to measure the results of funded actions. This distinction is depicted in Figure 1 below, which draws on the four categories of a change process as conceptualised by the Organisation for Economic Co-operation and Development (OECD) (OECD, 2002). The first category ('inputs') includes financial resources, and this is what tracking adaptation finance refers to. It tracks the allocation, provision and disbursement of finance. A challenge of adaptation tracking has been to define what counts as adaptation, and to apply a consistent understanding of adaptation across different funding sources (Donner et al., 2016; see section 3 below). An overview of global adaptation finance tracking methods is provided by Richmond and Hallmeyer (2019).

Figure 1. Distinction between adaptation finance tracking and measuring results



Source: Figure 3 in UNFCCC (2019, p.27). The four categories are based on OECD (2002).

Tracking finance as an input to the adaptation process is distinct from measuring its results. The amount of pledged and invested adaptation finance provides an indication of the general level of adaptation activity, but it neither contains information on what is being implemented nor can be taken as a proxy for effectiveness. Understanding adaptation progress thus requires examining what adaptation finance is being spent on and what results it has achieved (Leiter, 2021a).

The OECD (2002) distinguishes between three types of results, which build on each other:

- **Outputs:** "The products, capital goods and services which result from a development intervention"
- **Outcomes:** "The likely or achieved short-term and medium-term effects of an intervention's outputs"
- **Impacts:** "Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended".

This distinction helps to better assess what part of the adaptation process an intervention has supported, e.g. whether it merely built capacity or whether the beneficiaries have adapted their behaviour as a result of the capacity-building.

Outputs are directly generated by an intervention and are therefore typically straightforward to measure. Examples of outputs of adaptation projects are adopted policies, plans or strategies, establishment of early-warning systems, building or refurbishing green or grey infrastructure (e.g. an improved stormwater drainage system), or the provision of climate services.

Outcomes are the result of outputs but can also be influenced positively or negatively by external factors, e.g. by changes in economic or political conditions. According to a review of 110 adaptation initiatives in developing countries, the most common outcome clusters were a) reduction in climate risk, b) enhanced well-being, c) increased income, and d) improved ecosystems and natural resources (Owen, 2020).

Impacts under the OECD definition refer to long-term effects. For example, a Green Climate Fund-financed project in Grenada systematically addresses the supply and demand side of water resources management, including adjustments in water efficiency, water tariffs, rainwater harvesting and storage, and improved physical infrastructure.[5] If the project achieves its intended objective of "creating a climate resilient water sector in Grenada through increased freshwater availability and demand reduction measures", and if these results are maintained over time, then the resilience of Grenada's water sector could be classified as an *impact*.

In contrast to the OECD definition, in public debates the term 'impact' is commonly used as an umbrella term to mean any achievements of interventions akin to what the OECD refers to as "results" (see Figure 1). For example, Richmond et al. (2020) suggest using "impact metrics" to accompany adaptation finance tracking, and they likely refer to metrics that would measure either outputs or outcomes.

While different terms are in use, it is important to acknowledge the distinction between tracking financial flows as an input to adaptation and measuring their results. A key message to orient the debate is therefore:

> **Key message 2: Tracking finance as an input to the adaptation process is distinct from measuring its results. Accounting of financial flows cannot be taken as a proxy for effective adaptation.**

Measuring results at different levels

Results of adaptation actions are measured at the following different levels:

i) Project or intervention level

Projects funded with international climate finance typically have a monitoring and evaluation (M&E) system that is developed as part of the project proposal or at the beginning of the implementation period. The purpose of an M&E system is to help manage the project by monitoring its progress against intended milestones and objectives and to provide accountability to the funding source. Reflective M&E systems can also assist project teams in assessing how a project is performing against expectations, including identifying potential maladaptation and correcting activities as needed. Such a learning function often goes beyond the formalised indicators of a project's M&E system. Various methods for participatory M&E and learning are available for different circumstances (see e.g. CARE, 2014).

ii) Portfolio level

The portfolio of a global, regional or national climate fund or development bank includes all its projects. Measuring adaptation results at the portfolio level therefore means assessing the combined impact of these projects and their activities. Global climate funds such as the Green Climate Fund or the Adaptation Fund have results frameworks with core indicators that projects are required to report against alongside project-specific indicators. The core indicators can then be aggregated across projects to the portfolio level. However, due to the diversity of adaptation projects and outcomes, it has been challenging to define meaningful adaptation portfolio indicators. They often refer to the lowest common denominator among projects and to aspects that appear easy to count, such as 'number of beneficiaries' or 'number of policies/tools developed' (for a list of portfolio indicators used by global

[5] See: https://www.giz.de/en/worldwide/120411.html

climate funds, see Table 3 in Leiter et al., 2019). Global climate funds report their portfolio results in annual reports and in various outreach materials, including infographics and social media posts. The purpose of portfolio monitoring is therefore typically primarily around communication and accountability rather than about learning or project management.

iii) National level

Over 70 countries have adopted a detailed national adaptation plan or strategy.[6] Many of these countries are developing or already operating an M&E system to track the implementation of these plans (Leiter, 2021b). In the United Kingdom, for example, an independent commission assesses implementation progress and submits a report to Parliament every two years (Climate Change Committee, 2023). Countries' national adaptation M&E systems are tailored to their respective political and administrative systems and differ in purpose, scope and institutional arrangements (see the global stocktake in Leiter, 2021b). Countries use the generated data to inform national policymaking and for reporting under the Paris Agreement.

iv) Global level

At the global level, the Global Adaptation Mapping Initiative has examined the state of implemented adaptation as reported in journal articles (Berrang-Ford et al., 2021). Its data and insights provided the empirical foundation for a section on evidence of human adaptation in the latest IPCC report (Chapter 16.3.2 in IPCC, 2022a). UNEP's Adaptation Gap Report undertakes an annual assessment of adaptation at the global level structured around three core dimensions: adaptation planning, finance and implementation (UNEP, 2022). This structure highlights the relevance of key message 2 above, i.e. the need to go beyond tracking financial flows in order to obtain a comprehensive picture of global adaptation progress. The Global Stocktake under the Paris Agreement is another example of a global assessment that includes adaptation. Country submissions to the UNFCCC, international reports and submissions by non-governmental stakeholders are among its sources of input (Adaptation Committee, 2021a). How adaptation will be reflected in the outcome of the first Global Stocktake to be completed by the end of 2023 is still being negotiated (for a review of adaptation negotiations since the Paris Agreement, see Leiter, 2022).

Measurements of adaptation results can be connected between these levels. For example, global assessments usually draw on national and sub-national information and portfolio level assessments draw on data from projects (Leiter, 2015). However, assessments at each of these levels have specific purposes (e.g. whom they seek to inform and with what aim) and use different methods and approaches (see next section). A third key message is therefore:

> **Key message 3: Results of adaptation, including of actions funded by international climate finance, can be measured at different levels (from the project to the global level). Assessments at each level typically have specific purposes and audiences and use methods that fit these purposes.**

Methods for measuring adaptation results

The selection of suitable methods and approaches for M&E of adaptation depends on several factors, most importantly the purpose of M&E (Leiter, 2017). The most common generic purposes are accountability, providing feedback for managing an intervention, and actively promoting learning, i.e. supporting adaptive management. Each of these purposes has specific requirements (e.g. regarding the types and depths of information) against which M&E methods can be selected (ibid.). Accountability, for example, typically requires a set of predefined targets and indicators against which to measure progress, often in a quantitative form. Learning, on the other hand, requires a far broader perspective than just a few indicators and a more frequent provision of information than just an annual report. The intended purpose is therefore the most important determinant of the suitability of M&E methods. Other factors

[6] The UNFCCC portal 'NAP Central' lists national adaptation plans of developing countries that have officially been submitted to the Secretariat (https://www4.unfccc.int/sites/napc/Pages/Home.aspx). The number of plans listed on the portal is less than 70 since the adaptation plans of industrialised countries are not included. A more comprehensive list is provided in Leiter (2021b).

are the intended target audience and the resources available for M&E (Leiter, 2016). Guides to inform the development of adaptation M&E systems are available for each of the four levels:

i) Project or intervention level

Global climate funds and other funding sources have specific requirements for M&E which are outlined in their respective project application guidance. Typically, the development of indicators to measure outputs and achievement of objectives is required. Common methods are:

- **Using a theory of change** to describe the intended way a project or intervention seeks to achieve its objectives (see Bours et al. 2014)
- **Monitoring climate risk or vulnerability over time:** repeating vulnerability or risk assessments before, during and after an intervention and determining the influence of implemented actions on any detected changes. Climate vulnerability and risk assessments can be conducted in a variety of ways, e.g. based primarily on top-down climate information or by engaging the intended beneficiaries (Conway et al., 2019; Jones, 2019)
- **Qualitative surveys** of the intended beneficiaries.

Each method has its advantages and disadvantages, e.g. regarding ease of use and intensity of required resources and know-how. Some methods are only applicable to particular types of projects (e.g. being specialised in capacity-building activities; see Leiter, 2018). An overview of methods has been compiled by the Adaptation Committee (2021b). One of the first guides for the development of adaptation M&E systems around a theory of change was published as far back as a decade ago (Olivier and Leiter, 2013). Several sector-specific guides are also available, e.g. on climate-smart agriculture (FAO, 2019) and water resources (Leiter et al., 2023).

ii) Portfolio level

Multilateral development banks (MDBs) and members of the International Development Finance Club (IDFC), a group of 26 banks,[7] have agreed on a common framework to guide adaptation measurement which essentially follows the OECD categories shown in Figure 1 above (Inter-American Development Bank, 2019). This agreement facilitates harmonisation on terminology and comparability between each institution's M&E system. However, participating banks note the need for each institution to maintain M&E practices that fit their specific operating procedures.

iii) National level

National adaptation M&E systems differ significantly from one another, e.g. regarding the scope, type of information, and institutional arrangements (Leiter, 2021b). In 2015, a guide to the development of national adaptation M&E systems structured around a series of guiding questions was published in collaboration with the UNFCCC Adaptation Committee (Price-Kelly et al., 2015). More recent resources are available from the NAP Global Network.[8]

iv) Global level

Global assessments of adaptation progress have used different approaches and data sources, e.g. analysing evidence contained in journal articles (Berrang-Ford et al., 2021) or information from adaptation projects funded by global climate funds (Leiter, 2021a). An overview is provided in a cross-chapter box of the recent IPCC report (Garschagen et al., 2022).

> **Key message 4: There is no one-size-fits-all approach to measuring adaptation results. The suitability of M&E methods and approaches depends on the purpose, intended audience and available resources for M&E.**

[7] See https://www.idfc.org/members/

[8] https://napglobalnetwork.org/themes/monitoring-evaluation/

Adaptation indicators and metrics

The success of greenhouse gas mitigation can be measured in physical units with universal definitions (tons of emissions, concentrations in the atmosphere, degrees Celsius). Adaptation to climate change is a social change process whose success can manifest in a variety of ways along the whole spectrum of sustainable development. Just as there is no single unit to measure sustainable development, there is also no single global metric for adaptation (Leiter and Pringle, 2018). Instead, a variety of adaptation indicators are in use for various purposes. The suitability of an indicator depends on whether it measures what it is supposed to measure. However, "the international debate on adaptation metrics often discusses metrics in the abstract without defining what metrics are meant to be used for" (Leiter et al., 2019, p.4).

Indicators with adaptation relevance may refer to:

- Physical climate risks
- Vulnerability, adaptive capacity or exposure of people and assets to climate hazards
- Adaptation actions (i.e. what is being undertaken)
- Adaptation results

(See Table 2 in Leiter et al., 2019, which also includes examples.)

There is no consistent usage of the terms 'indicator' or 'metric'. They are often used interchangeably in the international policy debate. Regardless of terminology, what matters is not only the suitability of the indicator or metric as such, but a reliable way of measurement. For example, the indicator 'avoided economic damage from climate change' describes one of the intended aims of adaptation, but it can be operationalised in many different ways, leading to different results (Leiter et al., 2019, p.9). Hence, a challenge for adaptation indicators, especially at the outcome level, is to define how to measure them. Even indicators that appear to be easy to calculate like 'number of beneficiaries' require clear guidance on whom to include as a beneficiary. An inquiry into Global Climate Fund projects for whom this indicator is mandatory found:

> *in theory, the 'number of beneficiaries' is an aggregable indicator on portfolio level – but in practice the heterogeneity of the assumptions and calculation methods makes a comparison of expected number of beneficiaries difficult, if not impossible.* (Pauw et al. 2020, p.3)

In addition to these concerns about reliability of measurement, it is challenging to find adaptation indicators at the portfolio level that meaningfully capture adaptation outcomes and are applicable to a wide variety of projects. Since context matters profoundly to determine whether adaptation is successful and for whom, aggregating indicator values detached from their context can lead to misleading figures. To deal with the inherent trade-off between context-specificity and widespread applicability, it is useful to combine different types of indicators that each address different purposes, e.g. generic portfolio indicators with project-specific ones. Sector-specific portfolio indicators might be easier to standardise than generic portfolio indicators that aim for universal applicability. Further details and recommendations are provided in a background paper on adaptation metrics for the Global Commission on Adaptation (Leiter et al., 2019).

Two key messages on adaptation indicators are important for the new report:

> **Key message 5: Adaptation indicators need to fit to their intended purpose and need to have a clearly defined way of measurement.**
>
> **Key message 6: Instead of aiming for a universal set of global portfolio indicators, it is more important to ensure the quality of each adaptation project, especially to specify in detail *how* activities are expected to help people adapt.**

3. Effectiveness of adaptation finance

What counts as adaptation – and what can be designated as adaptation finance?

Adaptation finance can only be effective if it is genuinely addressing adaptation. A particular challenge for tracking adaptation finance is determining which projects can be considered as adaptation projects and what proportion of their funding to count as adaptation finance. For example, a water project might have multiple components, including a capital-intensive one that builds a new sewage treatment plant (i.e. is unrelated to climate change) and a smaller one that helps water user associations develop climate-resilient water management strategies. The latter would qualify as adaptation, but only accounts for a smaller proportion of the overall project value. Hence, only that proportion should be counted as adaptation finance. However, the OECD classification for development projects distinguishes only between:

- "Principal" adaptation projects where adaptation is "fundamental in the design of, or the motivation for, the activity": i.e. it is the primary objective of the activity (OECD, 2016)
- "Significant" adaptation projects where adaptation "is explicitly stated but it is not the fundamental driver or motivation for undertaking" an activity (ibid.)
- Activities that do not target adaptation as an objective.

Donor countries self-tag their activities according to these three categories. The relevance for tracking adaptation finance is that each donor independently decides what proportion of principal and significant projects is counted as adaptation finance. As of the latest survey of OECD members from 2022, only the UK and Finland determine this share of adaptation-relevance on a case-by-case basis. All other donors use default values, namely counting the total funding value as adaptation finance in case of a "principal" adaptation project and a proportion typically between 50–40% in the case of a "significant" tag (OECD, 2022b). If a project marked as "significant" has only a small adaptation component, as in the hypothetical water project outlined above, most OECD member countries would still report half of the project value as adaptation finance. Using fixed coefficients rather than a case-by-case determination can therefore lead to overestimation of adaptation finance volumes.

In contrast, the principles on adaptation finance tracking adopted by MDBs and IDFC members recommend that the determination of adaptation-relevance should be "based on project-specific data whenever feasible", which potentially leads to a higher accuracy of reported adaptation finance volumes (MDB-IDFC, 2018, p.10). A key message with importance for the accuracy of adaptation finance figures is therefore:

> **Key message 7: The proportion of funding of an activity that is reported as adaptation finance should reflect the actual proportion to which the activity's budget contributes to adaptation.**

Overreporting of adaptation activities

Several studies by civil society organisations and academia have examined the extent to which adaptation activities reported in the OECD database as "principal" and "significant" meet the respective criteria provided in the OECD Rio Marker handbook (OECD, 2016). A study of the 5,200 activities reported as either principal or significant adaptation in the year 2012 found that "28% appeared to be completely unrelated to adaptation, mitigation or environment" (Weikmans et al., 2017, p.467). A key-word analysis of the descriptions of all activities marked as principal adaptation since 2010 estimates that on average just 29% of activities and between 38 and 48% of the combined funding volume directly target reductions in exposure or vulnerability (see Figure 2; UNEP, 2022). These results support another analysis of the 2,600 projects reported by the top-10 donors as principal adaptation, which concluded that "more than one-third of the activities were not found to meet the OECD criteria for principal adaptation" (UNEP, 2021, p.43). An essential key message is therefore:

> **Key message 8: Adaptation finance can only be effective if it is genuinely addressing climate risks.**

What is causing this significant degree of over-reporting? Experience shows that pressure by project funders to mainstream adaptation leads project developers to tag many projects as "significant" on adaptation in order to get commissioned, even if the project only marginally addresses climate risks. The structure of the OECD Rio Marker system, consisting of only two variations (full and significant adaptation), contributes to this situation because it cannot account for projects with minor adaptation relevance. These projects therefore often get over-rated as "significant adaptation". This explanation is supported by a recent analysis of all 39,000 adaptation entries in the OECD database via a machine learning model. The model, which was validated with comparisons to hand coding, found that the "significant" adaptation markers are the primary cause of a high overreporting of adaptation finance (Toetzke et al., 2022). Donor countries in collaboration with the OECD should therefore ensure that activities marked as "significant" regarding adaptation are indeed targeting climate risk reduction in a sufficient way that justifies the associated proportion that is counted as adaptation finance.

> **Key message 9: Donors need to improve the accuracy of their labelling of activities as either "principal" or "significant" under the OECD Rio Marker system to ensure that adaptation finance statistics are valid and reliable.**

Figure 2. Extent of activities marked as "principal" adaptation that directly target risk reduction.
Evolution of principal adaptation projects in the OECD DAC Climate-Related Development Finance data set.

Panel A: The red line reflects the total number of actions and the blue line the proportion targeting the reduction of risk to specific climate hazards. **Panel B:** The red line reflects the total amount of funding per year for all actions and the blue the proportion allotted to actions that reduce climate risk.

Note: Monetary values presented in Panel B are in constant 2020 US$.

Source: Figure 4.2 in UNEP (2022, p.31).

Improving the quality of adaptation projects to increase their effectiveness

The effectiveness of adaptation actions crucially depends on their quality.

First, experiences of project developers and reviewers show that at times there is still a lack of clarity about what an adaptation project is and how it relates to traditional development projects. An adaptation project needs to help humans and ecosystems adapt to the impacts of climate change. There is no list of activities that would turn a project into an adaptation project. Instead, it is the **link to climate risks** that makes the difference: adaptation projects need to demonstrate that they *directly* help the targeted group to deal with climate risks (Leiter et al., 2023).

In project development practice, this demonstration still seems to cause difficulties. A survey conducted by the independent evaluation unit of the Green Climate Fund identified the climate rationale (that is, demonstrating how a project addresses climate risks) as the single biggest hurdle in project development (GCF-IEU, 2021). An earlier evaluation found that as of 2018, "more than two-thirds of the GCF-approved funding proposals did not clearly define causal pathways that show how activities lead to climate change impact" (GCF-IEU, 2018, p.2). Project proposals that do not clearly elaborate how their activities help people to adapt cannot be effective. Additional guidance and capacity-building for project developers appear needed to improve this situation, including sector-specific guidebooks (e.g. Leiter et al., 2023) and sharing of good practice regarding project development and the content of proposals. A theory of change can be a useful way to outline an intended change process towards adaptation (Bours et al., 2014).

> **Key message 10: Adaptation projects funded under international climate finance need to clearly outline *how* their activities will help the targeted beneficiaries to better deal with climate risks. A theory of change can facilitate outlining the intended adaptation process.**

Second, even those projects that do provide a sufficient climate rationale for adaptation might still miss important aspects. A review of 34 internationally-funded adaptation projects identified four factors that commonly hinder effectiveness (Eriksen et al., 2021):

1. Poor understanding of contextual drivers of vulnerability
2. Top-down design and implementation with inadequate representation of vulnerable and marginalised groups (e.g. women and indigenous groups)
3. Rebranding development activities as adaptation without considering climate risks
4. Failing to identify criteria for adaptation success and/or allowing success to be defined implicitly by dominant groups.

Accordingly, the Adaptation Gap Report 2021 proposes the following **recommendations** to increase the effectiveness of adaptation projects (UNEP, 2021, chapter 5):

a) On project planning:

- Ensure that planning is risk-focused and clearly explains how adaptation is expected to take place
- Ensure that planning is inclusive and context-informed
- Plan for higher-end climate impacts.

b) On M&E:

- Promote reflexive monitoring
- Validate outcome indicators and use multiple sources of evidence
- Facilitate the assessment of adaptation outcomes and communicate the results.

Further details are available in the 2021 Adaptation Gap Report (UNEP, 2021, chapter 5) and in a dedicated chapter on effectiveness in the 2022 Adaptation Gap Report (UNEP, 2022, chapter 5).

4. Key opportunities to double adaptation finance

Public finance and the adaptation finance gap

The Adaptation Gap Report 2022 found:

> *The adaptation finance gap in developing countries is likely five to 10 times greater than current international adaptation finance flows and continues to widen*. (UNEP, 2022, p.XIII)

Funds provided by developed country governments from national budgets remain a cornerstone of international adaptation finance. The amount of these funds has been steadily increasing but has fallen short of estimated needs. Any prospects for more substantial increases hinge on several factors, most importantly the domestic political climate and the economic outlook. On the former, changes in administrations can have a drastic impact. For instance, the total cut of international climate finance by the Trump administration in the United States was the primary cause of an almost 50% reduction in new adaptation projects in 2018 compared with 2017 (see Figure 5.2 in UNEP, 2021, p.43). Moreover, adaptation finance is at risk of competing with demands for funding for loss and damage from the same national budgets. Closing the adaptation finance gap therefore cannot be achieved without adding **additional, predictable and internationally anchored funding sources** that are less sensitive to changes in national administrations. An important step in this direction was the decision of COP26 to more than double the adaptation levy on market mechanism activities from the previous 2% on Clean Development Mechanism activities to 5% on activities under Article 6.4 of the Paris Agreement (Decision 3/CMA.3, Annex, paragraph 67). Accordingly, a key message for the report on doubling adaptation finance is:

> **Key message 11: To close the adaptation finance gap it is indispensable to establish new funding sources that deliver substantial and predictable funds that are less prone to changes in national administrations.**

The following section provides concrete examples of such international funding sources.

New funding sources: levies on fossil fuel extraction and consumption

Several proposals for funding sources to broaden adaptation finance to developing countries have been made:

a) International Air Passenger Adaptation Levy

Aviation is the most carbon-intensive form of transportation. According to the Environmental and Energy Study Institute, "if global commercial aviation had been a country in the 2019 national GHG emissions standings, the industry would rank number six in the world between Japan and Germany" (Overton, 2022). Commercial aircraft greenhouse gas emissions are projected to triple by 2050 and will account for an increasing share of global emissions since aviation is harder to decarbonise than other sectors (ibid.). Aviation also adds to the inequality in per-capita emissions as only a minority of the world's population can afford to fly. An international levy on aviation would therefore tax inequality and might entice consumers to choose low-carbon alternatives like high-speed rail.[9]

The LDC Group first proposed an International Air Passenger Adaptation Levy in 2008 (Chambwera et al., 2012). It was estimated it would generate US$8–10 billion per year based on a levy of US$6 and US$60 per economy and business class ticket, respectively (ibid.). If raised to US$20 and US$100 per economy/business class ticket, it was expected to generate US$25 billion per year based on international air travel figures for 2010 (Baker, 2011). Due to the significantly higher passenger numbers in the current and in future decades, the capitalisation potential is even higher. If added at the point of sale, the administrative effort for electronic collection would be low. Several countries have already proposed or introduced similar levies nationally (ibid.). An international aviation levy would be aligned with the

[9] A recent study of ticket prices of planes vs. trains on 112 European routes found that flying is almost always cheaper, and often by a wide margin (Greenpeace, 2023).

polluter pays principle, contribute to climate justice, and provide a substantial and predictable source of adaptation finance.

b) Fossil fuel extraction levy

A fossil fuel extraction levy would tax the primary source of additional emissions. An analysis of historical emissions between 1854 and 2010 found that emissions are attributable to just 90 companies (Heede, 2014). Accordingly, it has been proposed to collect a levy from these main producers of oil, natural gas, coal, and cement (Richards and Boom, 2014). The extraction stage of fossil fuels and the associated profits are currently not covered by emissions trading systems, which focus on consumption rather than production. The importance of considering the production side was highlighted by the Production Gap Report which found that "To follow a 1.5°C-consistent pathway, the world will need to decrease fossil fuel production by roughly 6% per year between 2020 and 2030" (SEI et al., 2020).

A fossil fuel production levy could be differentiated depending on the type of fossil fuel and the emission intensity of the production process (especially methane emissions during oil and gas extraction). Such a levy would make the market more efficient by internalising the costs of climate impacts into the price of fossil fuels and would contribute to climate justice by taxing the primary source of new emissions.

c) Levy on carbon-intensive energy production

Another proposal to increase adaptation finance is a levy on carbon-intensive energy production. It would follow the polluter pays principle and add to a more efficient market signal of polluting energy sources. Webster and Clark (2017) propose that such a levy would be organised by the private sector and collected by insurance companies. Under such an arrangement it could also cover countries that do not have an emissions trading system.

> **Key message 12: Levies on fossil fuel extraction and consumption have the potential to generate additional funding sources for adaptation that exceed current levels of adaptation finance and that are predictable and aligned with the polluter pays principle.**

Tapping into the vast resources spent on harmful subsidies

Despite the commitment at the G20 summit in 2009 in Pittsburgh to end fossil fuel subsidies, G20 governments continue to provide at least US$64 billion in subsidies per year to the production and consumption of coal alone (Gençsü et al., 2019). Harmful subsidies are not limited to climate change but also subsidise deforestation, overfishing and unstainable agricultural practices. A new World Bank report confirms: "Governments are spending trillions on inefficient subsidies that are making climate change worse – money that could be tapped to help solve the problem" (Damania et al., 2023). Phasing out harmful subsidies has enormous fiscal potential due to the magnitude of funds that can be redirected. It would also reduce strong economic incentives that work against achieving the goals of the Paris Agreement. Contrary to often voiced concerns, subsidy reforms can be conducted in a way that protects vulnerable groups and the poor, as examples from the Middle East and North Africa show (ibid.). The report by the Standing Committee on Finance should therefore highlight this important opportunity.

> **Key message 13: Repurposing fossil fuel and other harmful subsidies offers an immediate solution and an enormous fiscal potential to doubling adaptation finance based on existing budgetary resources.**

Ensuring that financial flows are directed at reducing climate risks

In addition to the provision of adaptation finance by donor countries, an important lever for adaptation is to ensure that national and international financial flows and investments are directed at reducing climate risks. At the national level, for example, Peru, Colombia and Brazil mandated a climate risk screening for public investments.[10] To facilitate mainstreaming similar approaches, the Coalition of Finance Ministers for Climate Action (2023) recently released a new framework and guide including the

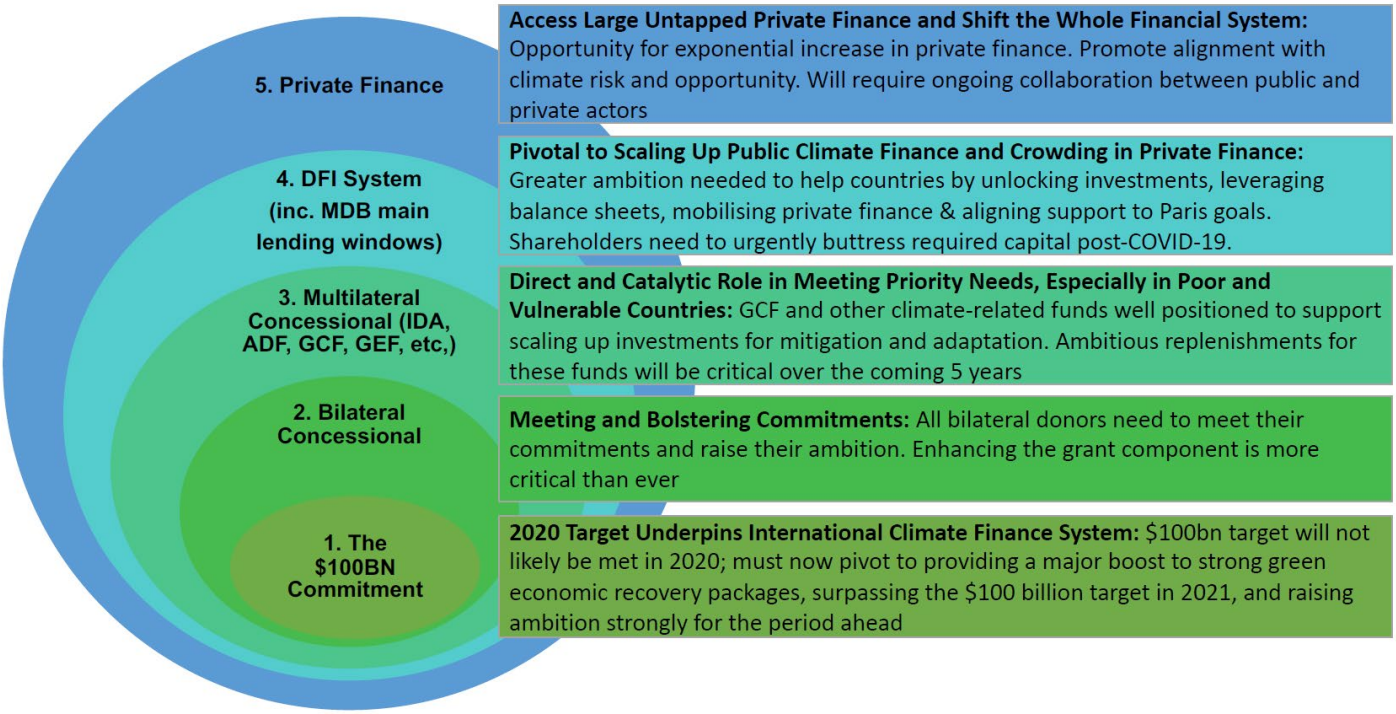
[10] See: https://www.giz.de/en/worldwide/13314.html

recommendation for Finance Ministries to "take climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices".

At the international level, the challenge is how to shift from *billions* to *trillions* of investment by ensuring every part of the global financial system is supporting climate action rather than locking in future emissions and incentivising maladaptation. This aim of "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development" is one of the objectives of the Paris Agreement (Article 2.1c; see Zamarioli et al., 2021). It involves reforming MDB practices, as called for in the Sharm el-Sheikh Implementation Plan (Decision 1/CMA.4, paragraphs 61-62), and aligning and incentivising private sector investments with adaptation and resilience (Ranger and Mullan, 2022). Only a genuine engagement of all five channels shown in Figure 3 will be able to generate the investments needed for adaptation in developing countries (Independent Expert Group on Climate Finance, 2020; Lankes and Robins, 2023). An important key message for the aim of at least doubling adaptation finance therefore is:

> **Key message 14: Ensuring that financial flows are consistent with climate-resilient development is an important complement to the provision of support.**

Figure 3: Conceptual framework on scaling up and transforming climate finance.



Source: Independent Expert Group on Climate Finance (2020) as reproduced in Ranger and Mullan (2022).

Conclusion

This submission highlights 14 key messages for the report on the doubling of adaptation finance. They refer to the measurement of adaptation finance outcomes, to experiences about the effectiveness of adaptation finance and to opportunities for additional funding sources.

The opportunities mentioned in this submission have the potential to more than double current adaptation finance flows under the UNFCCC. The key messages are validated by peer-reviewed literature and assessments, especially the IPCC's Sixth Assessment Report, UNEP's Adaptation Gap Report, prior UNFCCC reports from the Adaptation Committee and the outcomes of the 2019 technical examination process on adaptation (UNFCCC, 2019). Crucially, the doubling of adaptation finance needs to go hand in hand with improvements in the quality of adaptation projects and improvements in the accuracy of the classifications donors make under the OECD Rio Markers. Most importantly, "the adaptation finance gap can only be closed by limiting the adaptation costs", i.e. through strong reductions in global greenhouse gas emissions (Pauw, 2021; UNEP, 2021).

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