

Running on empty

The world is gearing up for climate resilience — without the money to get there

Executive Summary



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**Climate
Resilience
Alliance**

Running on empty

**The world is gearing up for climate resilience —
without the money to get there**

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Adaptation Gap Report 2025

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A global effort is needed to implement ambitious climate action in view of accelerating climate impacts.

Action on adaptation is still inadequate. Although there is clear evidence of accelerating climate impacts, changing geopolitical priorities and increasing fiscal constraints are making it more challenging to mobilize the resources needed for climate mitigation, adaptation, and loss and damage.

The lack of resources, action and global attention will result in higher global long-term temperatures and associated climate impacts and risks. Yet investments in climate action far outweigh the costs of inaction. For instance, every US\$1 spent on coastal protection avoids US\$14 in damages; urban nature-based solutions reduce ambient temperatures by over 1°C on average, a significant improvement during the summer heat; and health-related capacity-building can further reduce symptoms of heat stress.

The Adaptation Gap Report (AGR) series provides regular updates on what is happening globally in planning, implementation and finance for adaptation to climate change, informing the United Nations Framework Convention on Climate Change (UNFCCC) negotiations ahead of the annual Conference of the Parties to the UNFCCC (COP). This year's report finds that:

- ▶ The adaptation finance needs of developing countries by 2035 are at least 12 times as much as current international public adaptation finance flows
- ▶ The Glasgow Climate Pact goal of doubling 2019 adaptation finance flows by 2025 to approximately US\$40 billion will be missed if current trends continue
- ▶ The new collective quantified goal for climate finance (NCQG) is insufficient to meet developing countries' adaptation finance needs in 2035
- ▶ There is evidence of improving adaptation planning and implementation, but it is limited

A global collective effort – a “*mutirão global*” as called for by the Brazilian COP 30 Presidency – is needed to bridge the finance gap and accelerate climate action, with both public and private finance having to step up. The AGR 2025 reflects on opportunities for the Baku to Belém Roadmap to 1.3T and the private sector to contribute to this effort.

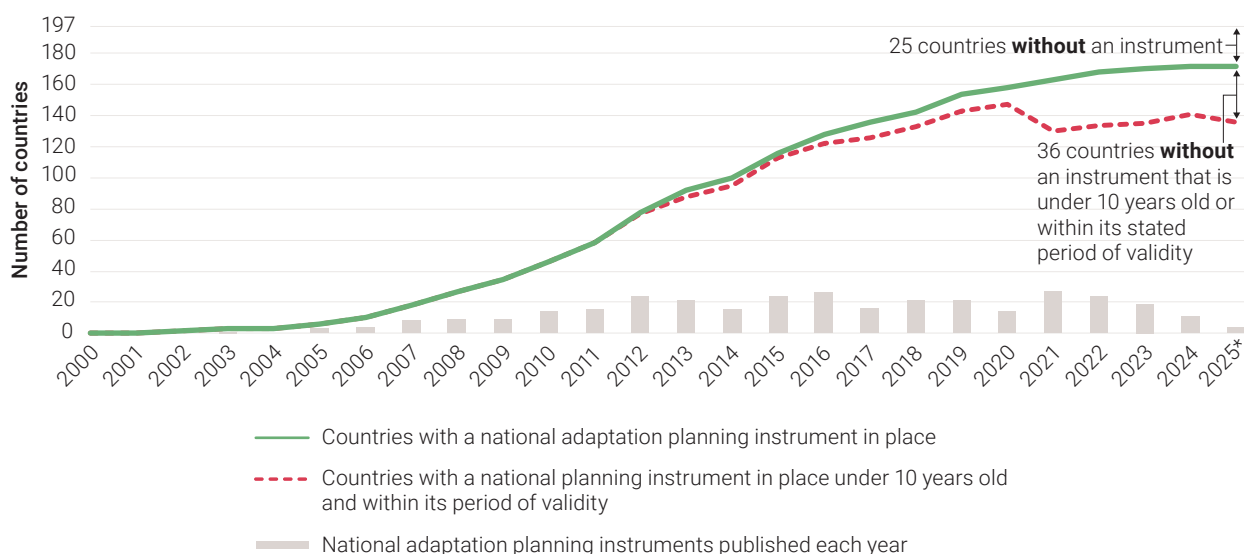
1 Status of adaptation planning and implementation

Progress in adaptation planning is visible but patchy.

Planning is critical to minimize and address current and future climate risks effectively. Having in place national planning instruments is therefore an important indicator of progress towards the global goal on adaptation. A total of 172 out of 197 countries worldwide have a national adaptation plan, strategy or policy in place (figure ES.1). Out of the 25 that do not, only four have not started developing one. However, 36 countries possess plans that are outdated or have not been updated for a decade, which calls into question their relevance and effectiveness under present day or future conditions. This could be an indication that countries encounter difficulties in updating these plans in a timely manner, which should be addressed with urgency to minimize the possibility of maladaptation.

Countries are also showing progress in the mainstreaming of adaptation into relevant plans and strategies, which constitutes the other element of the United Arab Emirates Framework for Global Climate Resilience (UAE FGCR) target on adaptation planning. Most small island developing States (SIDS) have strongly integrated adaptation into their national development plans and strategies, demonstrating that – within these countries – adaptation is deeply embedded within broader development planning processes. Similarly, although evidence of mainstreaming is often weakly reported on in biennial transparency reports (BTRs), and should be strengthened in the reports due in 2026, 59 per cent of countries still report on at least one instance of integrating adaptation into a non-climate plan or strategy, suggesting that progress in adaptation mainstreaming is being made by a wider constituency of countries.

Figure ES.1 Progress towards achieving the UAE FGCR's target of all country Parties having national adaptation planning instruments in place by 2030



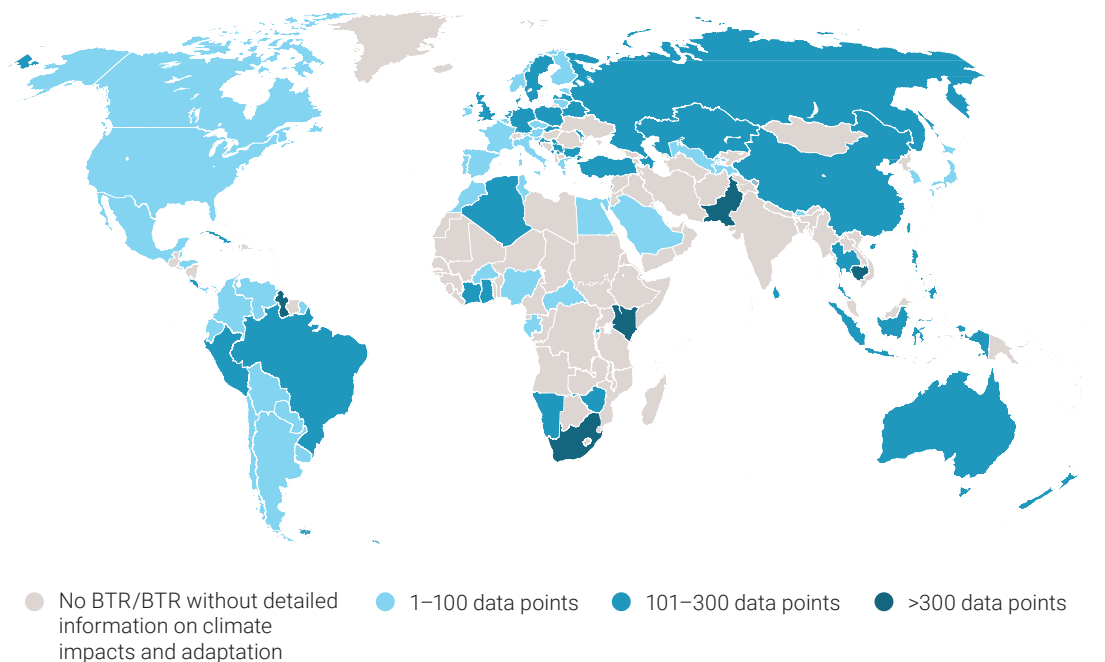
* Until 31 August 2025

The funds under the UNFCCC mark record disbursement, and adaptation implementation is progressing, but gaps remain.

While their total volume is small compared with other multilateral and bilateral adaptation finance (see below), the funds under the UNFCCC are important for the COP negotiations. Support to adaptation implementation under the Adaptation Fund, the funds managed by the Global Environment Facility and the Green Climate Fund soared to nearly US\$920 million in 2024. This is an increase of 86 per cent compared to the five-year moving average of US\$494 million between 2019 and 2023. However, this may not be a trend, with financial constraints likely to rise beyond 2025.

Implementation of national adaptation plans, policies and strategies to reduce the social and economic impacts of relevant climate hazards is one of the UAE FGCR targets. Thus, tracking progress towards this objective is critical to achieving the global goal on adaptation. To meet that end, the UNFCCC-mandated BTRs, which were due at the end of 2024, are the most comprehensive national source of information on adaptation implementation worldwide available. However, while 94 of 105 available BTRs address adaptation, most least developed countries (LDCs) and SIDS, as well as a majority of African countries, have yet to submit one, and the coverage of adaptation varies widely (figure ES.2).

Figure ES.2 Global distribution of countries that have submitted a BTR with detailed information on climate impacts and adaptation, and the number of data points per country



Note: As at 31 August 2025; a data point refers to a segment of text (such as a statement or block of text) in a BTR that contains information on any of the topics relevant for assessing climate impacts and adaptation.

Analysis of the more than 1600 adaptation actions reported in the BTRs reveals that 23 per cent target biodiversity and ecosystems, followed by the food and agriculture; water and sanitation; and infrastructure and human settlements thematic areas with 14–18 per cent each. Health and poverty alleviation and livelihoods have markedly lower levels of reporting, while information on adaptation related to cultural heritage is almost entirely absent. This distribution reflects the priority sectors identified in nationally determined contributions (NDCs) and national adaptation plans (NAPs), providing a first indication of alignment between national planning and implementation. Institutional actions, particularly government policies, programmes and research (48 per cent); management of natural resources, most prominently water (25 per cent); and actions addressing behavioural change, like trainings (22 per cent), together make up most of the reported action categories, whereas structural and technological measures are the least reported category (5 per cent).

Nearly three quarters of the information on results of actions refers to direct outputs, such as risk assessments, trainings or establishment of climate information systems. Information on outcomes (16 per cent), such as uptake of adaptation-relevant technologies or access to climate services, and on impacts (12 per cent), describing the resilience effects of adaptation actions including improved biodiversity, water availability or agricultural production, is still not widespread. Greater emphasis on outcomes and impacts of actions in the coming rounds of BTRs is necessary for a better assessment of the effectiveness and adequacy of adaptation implementation. Opportunities that would make the next iteration of BTRs more relevant and would also strengthen the second global stocktake are presented in box ES.1.

Box ES.1 Opportunities to improve adaptation reporting in BTRs

- ▶ Strengthen reporting on efforts to mainstream adaptation into broader national development planning
- ▶ Demonstrate progress in implementing priorities set out in key planning instruments such as NAPs and NDCs
- ▶ Deepen information on adaptation actions and results, in particular on outcomes and impacts
- ▶ Provide more information on health, poverty alleviation and livelihoods and cultural heritage to improve understanding of progress in adaptation implementation across all themes of the global goal on adaptation
- ▶ Improve linkages between climate hazards, risks and effects with outcomes and impacts of actions to create a coherent narrative, enhance consistency within BTRs, and enable assessment of the effectiveness and adequacy of adaptation actions
- ▶ Provide more information on gender equality and social inclusion, especially regarding actions and results
- ▶ Enhance information on efforts to develop systems for monitoring, evaluation and learning of adaptation actions and results
- ▶ Provide detailed information about barriers to adaptation planning and implementation, including information about effective strategies for overcoming these barriers

2 Status of adaptation finance**The adaptation finance gap is not reducing, and the Glasgow Climate Pact goal will be missed under current trajectories.**

In view of the timeline for the NCQG, it is pertinent to reassess the adaptation finance gap and align it with the year 2035. The reanalysis estimates the costs of adaptation to be in a plausible central range of US\$310–365 billion per year for developing countries by the year 2035 (in 2023 prices).¹ The range reflects evidence from an updated modelling analysis of adaptation costs, as well as an updated assessment of submitted adaptation finance needs based on NAPs and NDCs, with extrapolation to all developing countries.

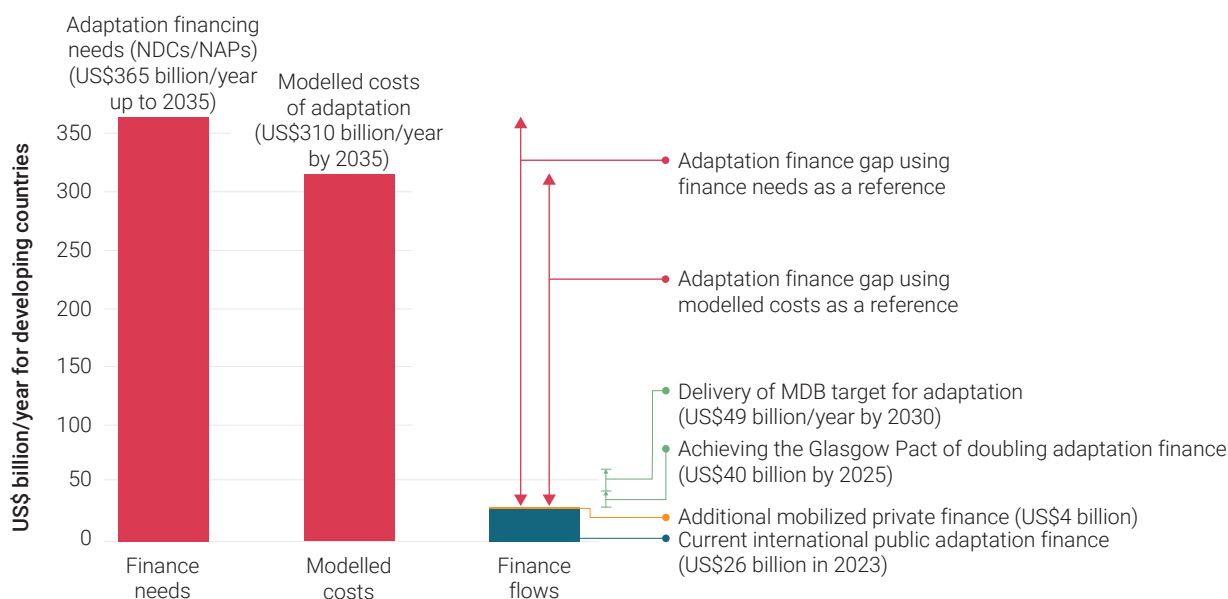
Contrasting this, the latest available international public adaptation finance flows from developed country Parties to developing country Parties were tracked at US\$26 billion in 2023 (constant 2023 prices). This is a slight decline compared to 2022, and was due to a drop in funding from the multilateral development banks.² This levelling off of finance, and recent policy announcements on the reduction of official development assistance, suggests that the Glasgow Climate Pact goal of doubling international public adaptation finance from 2019 levels to around US\$40 billion by 2025 will be missed if current trends continue.

Comparing the estimated adaptation finance needs with the current finance flows shows that the adaptation finance gap is now US\$284–339 billion per year until 2035, with needs that are 12–14 times as much as current finance flows (figure ES.3). The more positive news is that the adaptation finance gap is lower for LDCs and SIDS, though the levels still fall far below needs for these most vulnerable countries.

¹ The range is significantly smaller than that presented in the AGR 2023 (US\$215–387 billion per year until 2030 in constant 2021 prices), which is due to updated and extended modelling analysis and more costed country needs, but little of this is related to the different time frame.

² This includes only the share corresponding to flows from developed country Parties to developing country Parties. If all finance flows are considered, the volume of international public adaptation finance rises to US\$35 billion in 2023, reflecting the important contribution of developing country Parties to adaptation finance – around 30 per cent.

Figure ES.3 Comparison of adaptation financing needs, modelled costs and international public adaptation finance flows in developing countries



Note: In constant 2023 prices. Domestic and private finance flows are excluded.

Debt instruments are growing in prominence and non-concessional loans exceeded concessional loans, raising concerns of long-term affordability and equity.

As well as the volume of finance, the mix of financial instruments is important, especially in terms of the NCQG text which highlights the need for concessional finance. Although 70 per cent of international public adaptation finance was concessional in 2022–2023,³ it is worrisome that debt instruments continue to dominate these overall flows, comprising 58 per cent on average in 2022–2023. In particular, the increasing proportion of non-concessional debt instruments raises concerns about long-term affordability, equity, and the risk of an ‘adaptation investment trap’ where the rising climate disasters increase indebtedness and make it harder for countries to invest in adaptation. This is particularly true for vulnerable countries, especially LDCs and SIDS, which have contributed very little to the climate crisis but suffer the most from its effects. Further, non-concessional loans exceeded concessional ones, albeit so far predominantly to middle-income countries.⁴

The NCQG is insufficient to meet adaptation finance needs.

During COP 29 in Baku, the NCQG set the goal, with developed country Parties taking the lead in mobilizing at least US\$300 billion per year by 2035 to developing country Parties for climate action.⁵ At first glance, this target appears significantly higher than the previous goal for developed countries to mobilize US\$100 billion by 2020 for developing countries. However, this new goal is clearly insufficient to meet adaptation finance needs in 2035 for two reasons. First, the NCQG is not adjusted for inflation, and therefore represents US\$300 billion in the year 2035. To compare on an equivalent basis, it is necessary to take account of possible future inflation. For example, adjusting the AGR adaptation finance needs of US\$310–365 billion per year (in constant 2023 prices) at a 3 per cent inflation rate (the average rate over the last decade) would increase these needs to US\$440–520 billion annually by the year 2035. Second, the NCQG covers both mitigation and adaptation, and so far no adaptation subgoal has been agreed during UNFCCC negotiations. The AGR 2025 has assessed possible scenarios for a minimum and maximum level of adaptation finance in 2035, finding that under both scenarios, the adaptation finance gap cannot be closed with international public finance alone.

³ Either in the form of grants or as concessional loans with very low interest rates and long grace periods/maturity timelines.

⁴ For LDCs, the distribution was balanced between grants (51 per cent) and debt instruments (49 per cent), with non-concessional debt more limited (10 per cent); for SIDS, the proportions were grants (55 per cent), concessional (17 per cent) and non-concessional (26 per cent) loans, with the higher figure for the latter due to income-based eligibility limits.

⁵ The US\$300 billion goal was embedded within the much larger Baku to Belém Roadmap to 1.3T, a call for action to scale up finance to at least US\$1.3 trillion annually in 2035 to developing country Parties.

3 Bridging the adaptation finance gap

Private sector finance can help fill the gap, though its overall contribution is likely to be modest.

AGR 2025 has looked at the potential for the private sector to play a role in filling the adaptation finance gap. To do this, it has developed a typology to assess the types of adaptation and the associated roles of the public and the private sector (figure ES.4), and used this for a detailed country, sector and activity analysis.

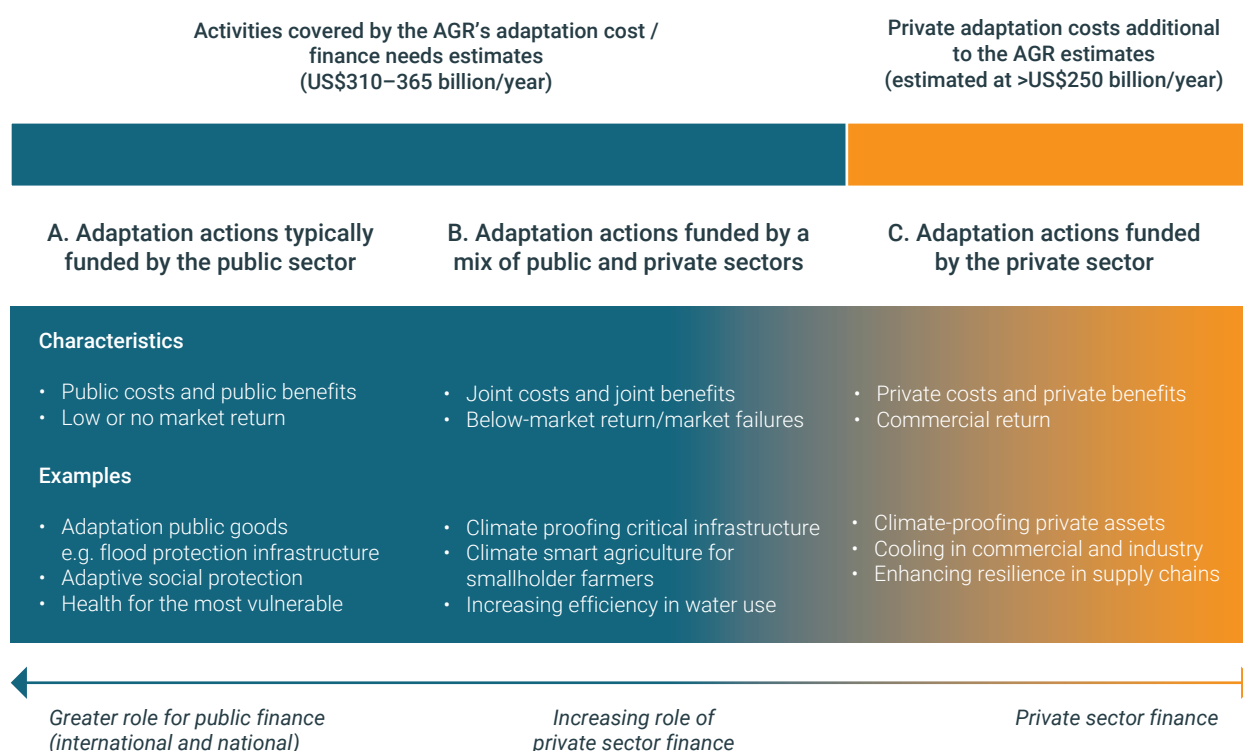
The aggregated results indicate that for the types of national adaptation activities prioritized in NAPs and NDCs (columns A and B of the figure, which relate to the AGR finance needs of US\$310–365 billion/year), around three quarters are typically funded by the public sector. These include public goods, such as major flood protection investments or cash transfers (column A), and other investments and services dominated by the public sector today. However, the other quarter involves adaptation activities where there is a role for the private sector, such as climate smart agriculture (column B). Adjusting this down for the realistic potential, the AGR 2025 estimates that the private sector could deliver approximately 15–20 per cent of total national adaptation funding needs (US\$50 billion/

year of the US\$310–365 billion/year by 2035). However, the relative private share will vary strongly between countries and sectors. It will be higher for upper-middle-income countries and likely to be much lower for low-income countries; it will also be predominantly in certain sectors, in particular for agriculture, water and infrastructure.

Moreover, as current private sector flows are low, with tracked levels at ca US\$5 billion per year, even reaching this level will require targeted policy action. It is also likely to require blended finance solutions where public finance is used to de-risk and scale up private investment. Due to lower leverage and mobilization ratios for adaptation compared to mitigation, significant volumes of concessionary public finance are likely to be needed to deliver this private sector investment.

Under column C of figure ES.4 there are additional adaptation actions to be funded by the private sector, such as climate-proofing private sector assets. Parties do not ask for financial support for these investments in NAPs or NDCs, and they sit outside the AGR estimates, though they will involve large additional costs for the private sector, estimated indicatively at more than US\$250 billion per year.⁶

Figure ES.4 Simplified categorization of adaptation types and opportunities for private sector engagement



⁶ While this raises total adaptation costs (public and private) in developing countries to over US\$500 billion per year, this does not account for the additional residual damages after adaptation, which are likely to increase as climate impacts accelerate with warming.

Innovative models can increase private sector financial investment, but they will not likely bridge the funding gap.

There is growing interest in innovative approaches that might scale up private investment in adaptation. The AGR 2025 has analysed the latest information available on adaptation accelerators, incubators and platforms to identify new private sector adaptation solutions, finance instruments and business models. This revealed many innovative approaches, but reinforces the findings above, in that opportunities are concentrated in the agriculture sector, and most innovation is focused on middle-income countries. Moreover, insufficient attention has been given to the distinction between financing and funding because the majority of innovative approaches transfer the costs of adaptation back to the developing countries or households. Therefore, while they reduce the financing gap (i.e. who provides the money), they do not reduce the funding gap (i.e. who ultimately pays). The AGR 2025 contends that this issue needs to be brought out more transparently in negotiation discussions.⁷

The Baku to Belém Roadmap to 1.3T must guide bridging the adaptation finance gap fairly and without enhancing vulnerabilities of developing nations.

The Baku to Belém Roadmap to scale up finance to US\$1.3 trillion was established in 2024 during COP 29 as part of the NCQG, with the intent of enabling more climate action in developing countries in support of low-emissions climate-resilient development pathways. This includes implementing NDCs and NAPs through grants, concessional and non-debt-creating instruments to avoid enhancing vulnerabilities and inequities. The AGR 2025 provides reflections for the forthcoming negotiations to strengthen the Roadmap:

First, by containing the growth of the adaptation finance gap through mitigation and avoided maladaptation. For example, the roadmap could point at the importance of removing fossil fuel subsidies and reducing investments in fossil fuel infrastructure in line with the global stocktake's call to transition away from fossil fuels. It could also provide guidance on avoiding maladaptation, for example by addressing the root causes of vulnerability, such as through fair allocation of finance within countries, enhancing capacities and access to resources, addressing unequal power dynamics, and ensuring adaptation is locally led.

Second, by increasing the volume of adaptation finance with the help of new providers and instruments. This could include expanding the sources and modalities for support beyond grants and loans. Additional climate finance providers could also support bridging the gap. Several countries not listed among the developed countries with the capacity and resources to do so are already supporting developing countries through the provision of adaptation finance. The roadmap could identify possible instruments and ways in which additional actors can voluntarily contribute to closing the adaptation finance gap in transparent and accountable ways.

Third, by engaging more finance actors in integrating climate resilience into financial decision-making. The roadmap could identify ways for actors such as central banks, commercial banks, credit rating agencies and export credit agencies to consider resilience in decisions on lending and rating more strongly. This would help manage physical risks and increase adaptation. However, there are critical issues of fairness that need to be considered to avoid increasing perceived investment risks and negative biases against the most vulnerable populations and nations.

4 Summary

To achieve the objectives of the global goal on adaptation, public and private actors need to step up financial support in line with the Baku to Belém Roadmap.

While there are signs of mainstreaming adaptation into broader national development planning and implementing adaptation in priority sectors and areas, not enough can be said about the effectiveness and adequacy of adaptation actions. This will be critically important for the assessment of progress towards the global goal on adaptation in the second global stocktake. It can be supported by aligning reporting in the second BTRs with the UAE FGCR, and strengthening their quality by considering the opportunities for improvement as described in this report.

Meanwhile, it is far too evident that the financial resources needed to enable adaptation action in developing countries at the scale necessary to meet the growing challenges of current and future climate risks is woefully inadequate. It will take nothing less than a global collective effort to increase climate finance to the levels articulated in the Baku to Belém Roadmap to 1.3T. This is particularly salient because the potential for private sector finance to contribute is moderate, and needs targeted policy action and blended finance to be accessible.

⁷ A smaller number of innovation models showed the potential to help fund as well as finance adaptation because their cost recovery models generate new benefit streams which can also help fund adaptation; further analysis of their potential is a priority.

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