GCF insight #23

Climate change adaptation in Green Climate Fund project development

ECO. DEEPER THINKING

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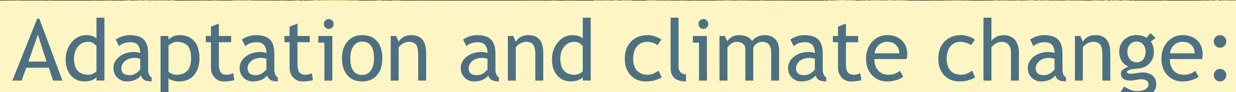
About E Co.

We specialise in designing low-carbon, climate-resilient projects and programmes. For over 23 years, we've been providing technical expertise to help our clients solve climate adaptation and mitigation challenges and access project funding. We assess markets, develop strategies and formulate projects to provide long-lasting solutions for vulnerable populations worldwide.

Adaptation and climate change: The context



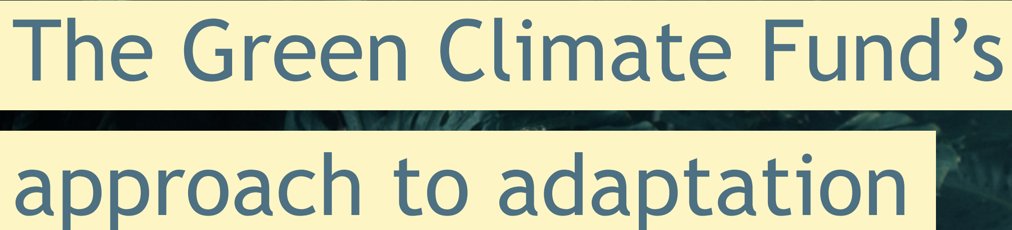
Adaptation and the resilience-building measures it creates are crucial to combatting climate change, enabling affected communities to increase their resilience to the extreme weather events already being experienced around the globe. Yet, even with the current, devastating impacts of climate change, adaptation typically receives far less attention, and funding, than mitigation measures.

Adaptation finance refers to 'Finance for actions that help communities reduce the risks they face and harm they might suffer from climate hazards'[1], hazards such as storms or droughts. At COP15 in Copenhagen, parties agreed upon the goal of mobilising USD $100 billion in climate finance annually by 2020 from developed countries to developing countries. Research from the OECD reveals a significant shortfall in the progress towards that goal – with finance flows achieving only USD $83.2 billion in 2020. While adaptation finance has increased year on year, from USD $16.9 billion in 2018 to USD $20.3 billion in 2019, and then to USD $28.6 billion in 2020, it still pales in comparison to the USD $48.6 billion for mitigation.[2]

The trends in global climate finance – total climate-related finance, including, but not limited to, government spending – echo a similar message. The Climate Policy Initiative (CPI) found that from the years 2011-2020, a cumulative USD $4.8 trillion in climate finance was committed.[3] While rapid annual growth of around 7% is positive, the IMF states overall climate finance requires USD $3-6 trillion annually by 2030 – with estimated annual adaptation needs between USD $160 billion to $340 billion by the end of the decade, and up to $565 billion by 2050 – to avoid the worst impacts of climate change.[4]

For 2020, the CPI tracked USD $653 billion in global climate finance of which just 13.3% (USD $49 billion) went to adaptation. Financing for energy-related mitigation measures shows the most progress whilst key adaptation sectors such as agriculture, forestry, and land use lag behind.

1 World Resources Institute. 2022. Adaptation Finance. Available at - https://www.wri.org/insights/adaptation-finance-explained
2 OECD. 2022. Climate Finance and the USD 100 Billion Goal. Available at - https://www.oecd-ilibrary.org/finance-and-investment/aggregate-trends-of-climate-finance-provided-and-mobilised-by-developed-countries-in-2013-2020
3 https://www.climatepolicyinitiative.org/wp-content/uploads/2022/10/Global-Landscape-of-Climate-Finance-A-Decade-of-Data.pdf
4 https://www.imf.org/en/Publications/staff-climate-notes/Issues/2022/07/26/Mobilizing-Private-Climate-Financing-in-Emerging-Market-and-Developing-Economies-520585



The Green Climate Fund's approach to adaptation

The Green Climate Fund (GCF) is the only climate fund with an explicit commitment to deliver 50% of its financing to adaptation to ensure an equal approach.[5]

However, there is still work to be done to achieve this mandate. Of the total GCF-committed funding (USD 12 billion) currently allocated, 60% goes to mitigation and 40% to adaptation (USD 7.2 billion versus USD 4.8 billion).[6]

The GCF has a much more even split when it comes to the grant-equivalent funding, with a slightly higher proportion for adaptation (51% vs 49%). In the current project portfolio of the GCF, 89 out of 216 projects are focused specifically on adaptation, 72 on mitigation, and the remaining projects are cross-cutting — a combination of both.

One of the major challenges for ensuring adaptation receives the same attention and funding as mitigation is to make adaptation projects and programmes attractive to the private sector. Currently, 65% of funding for projects in the GCF portfolio comes from the public sector, compared to 35% from the private sector. Private sector projects are typically larger in size (in terms of total funding) but there are far fewer of them. Of the 89 adaptation projects in the portfolio, 83 are public sector and just six are private sector.

5. https://www.greenclimate.fund/theme/adaptation#our-role
6. As of the most recent board meeting in March 2023.

What we found

In brief, here's what we found from our study:

- The difficulties in creating convincing investment arguments for adaptation contribute to the funding gap between mitigation and adaptation;
- A lack of clear revenue-generating potential for adaptation projects makes them less attractive, especially to the private sector;
- Innovative financial instruments combined with capacity building could positively influence adaptation investments.

Methodology

This study was conducted in June 2023 and consisted of survey questionnaires, semi-structured interviews, and literature reviews. The survey received 61 responses and three interviews with external stakeholders were conducted.

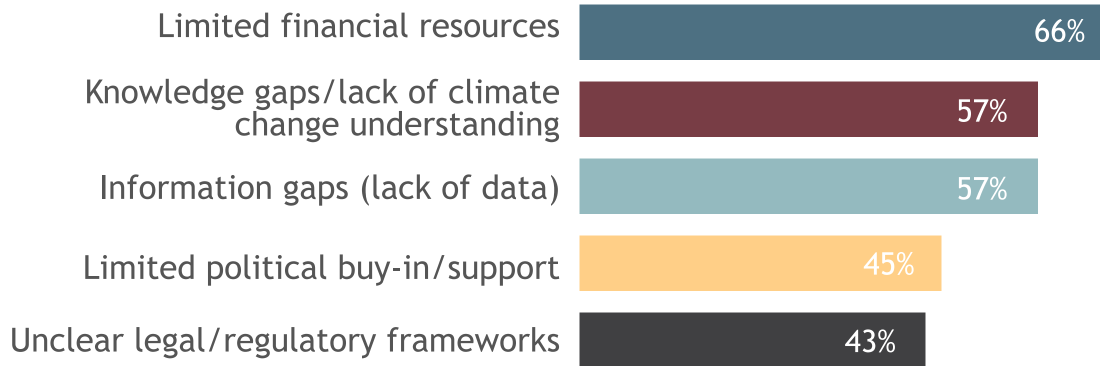
The objective of this survey is to learn more about the challenges relating to successfully designing and funding adaptation projects and programmes. We aim to identify the difficulties in designing adaptation projects, including those that take a locally-led approach, and the associated funding challenges, and endeavour to find ways to address them.

To gauge the respondents' thoughts about why adaptation projects, actions, and funding typically lag behind mitigation, we asked 'What are the key barriers to effective climate change adaptation?'

Two-thirds (66%) cited limited financial resources as the most significant barrier and 57% said an overall gap in knowledge and lack of understanding about climate change. Another 57% proposed limited information, especially data, 45% think limited political support and 43% cited unclear legal and/or regulatory frameworks.[7]

7. Respondents could select as many options as they wanted, therefore the total does not equal 100%.

What are the key barriers to effective climate change adaptation?



These results are interesting as they create a discussion regarding a key question:

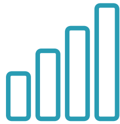
Are there limited financial resources available because there are fewer bankable adaptation projects (perhaps resulting from knowledge and/or data gaps as constraints), or are there fewer bankable adaptation projects because there are limited financial resources available?

Currently, there is no clear answer and establishing causality is very challenging.

Why is there a funding gap between adaptation and mitigation?

To understand how to close the gap in funding between adaptation and mitigation activities, we first need to determine why the gap exists. We asked this question in our survey and the responses largely reflect our own experiences in designing projects. Key points can be grouped in the following areas:

Adaptation actions may not generate revenue and are more difficult to accurately calculate economic benefits - creating a difficult investment argument;



Indicators for adaptation are less developed and more ambiguous which makes the methodology for calculating impact more challenging.

The vast majority of global climate finance, approximately 94%, comes in the form of two financial instruments – equity and loans.[8] In both cases, the financier expects a return on their investment as opposed to grants which are usually non-repayable.

Mitigation projects/programmes are often a lower-risk investment option as they tend to include activities that generate revenue - for example, a project that builds renewable energy infrastructure to increase energy generation capacity. The revenue-generating potential is easy to calculate – multiply the use of power (kWh) by the cost per kWh. Even as energy costs fluctuate, a likely range for revenue can be determined which provides comfort to prospective investors.

Adaptation benefits are a lot harder to calculate in terms of economic value because they often come in the form of avoided losses rather than new, additional revenue generation. For example, enhancing the resilience of agriculture against droughts will yield enormous benefits – such as food security - but they will not generate new revenue, but rather prevent economic losses, losses which are difficult to predict until they actually occur. The social case for adaptation is easy to argue, the business case is much harder. Yet, conflating economic returns with the need for projects risks overlooking impactful projects that can generate the paradigm shift potential that the GCF strives for.

This was reflected in our survey responses. One respondent said "*Economic and financial value brought in with mitigation is direct, clear and standardised. Adaptation requires an indirect valuation where standards can vary.*" Another said:

> ***"There is too much focus on Return on Investment (ROI) and business models. Mitigation depends heavily on technology and infrastructure, while adaptation requires investments related to common goods, such as capacity building, territorial planning, which is not too profitable."***

This was further added to by another respondent who stated, "*Adaptation activities being considered as "Non-Revenue Generating" interventions do not get the requisite amount and mode of financing.*"

8 https://www.brookings.edu/articles/debt-for-adaptation-swaps-a-financial-tool-to-help-climate-vulnerable-nations/

Difficulties in demonstrating adaptation impact

Another theme that arose in the responses was the difficulty in demonstrating the impact of adaptation interventions compared to mitigation, partially as a result of methodologies and indicators used. *"The difficult qualification and quantification of adaptation is much more complex than mitigation – less known and less recognised",* as one respondent said.

The globally recognised indicator for mitigation relates to the tons of CO_2 equivalent reduced, removed, or avoided as a product of the funded interventions. There are many methodologies that can be used to calculate this, but overall, this impact indicator is very clear. One interviewee believes that:

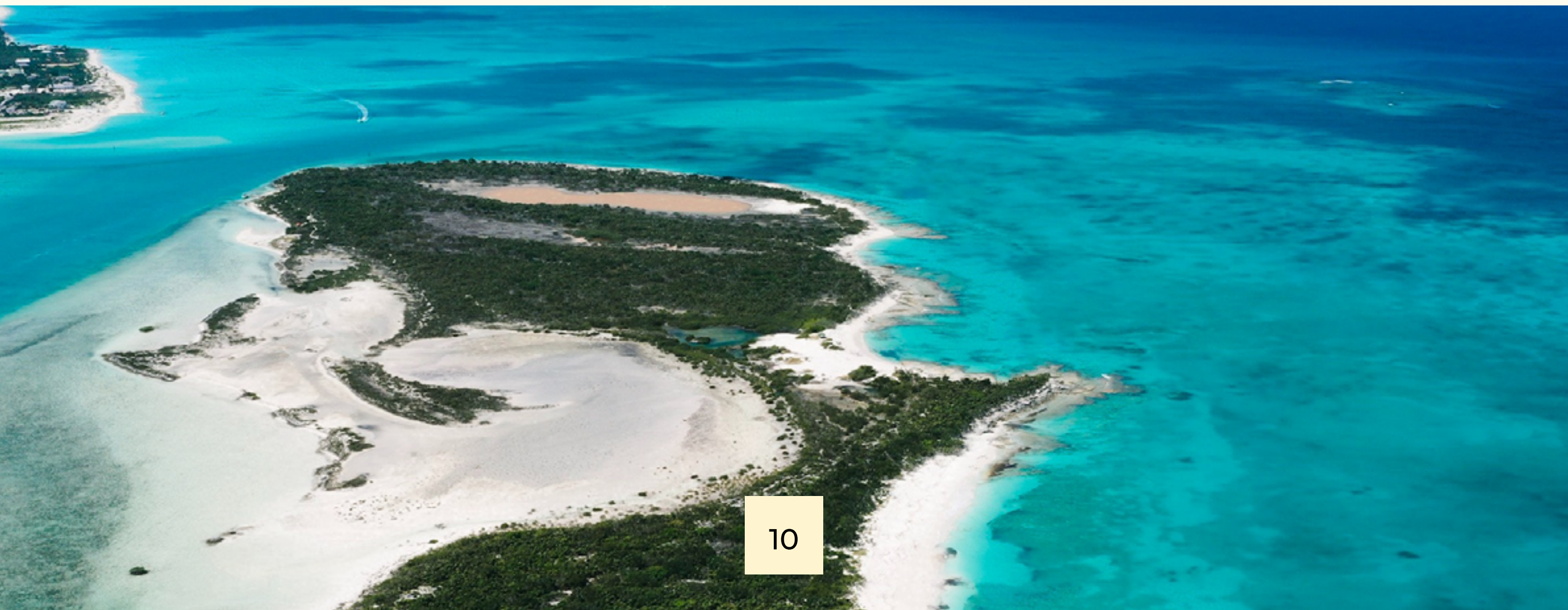
> ***"Mitigation has received more attention and funding because it addresses the root causes of climate change by reducing greenhouse gas emissions. Moreover, mitigation efforts often have more measurable and tangible outcomes compared to adaptation."***

Another told us, *"From my point of view, mitigation projects are easier to set up. The evidence in terms of impact potential is easier to demonstrate."*

In contrast, adaptation involves a wide range of context-specific actions and investments that aim to build resilience and reduce vulnerability to climate change impacts. The indicator used by many climate funds relates to the number of people who gain increased resilience to climate change as a result of the funded adaptation activities.

However, 'increased resilience' as a metric has a high level of ambiguity and is less measurable - resilience for fishing communities in the Caribbean may look completely different to resilience for smallholder farmers in Chad. There is much less information on what increased resilience should look like.

The indirect and localised nature of adaptation makes it more challenging to quantify and demonstrate its impact, leading to less visibility and perceived effectiveness. Furthermore, climate change adaptation is often seen as more localised and falls primarily within the affected communities and countries. In addition, accessing adaptation finance can be more complex due to the diverse nature of adaptation interventions.



Integrating locally-led adaptation in project design

In recent years, there has been a significant focus on locally-led adaptation (LLA). This term refers to ensuring the local communities most vulnerable to climate change are empowered to lead sustainable and effective adaptation. It gives those on the frontline of climate impacts an opportunity to have a voice in key decisions that affect them and changes the usual top-down approach intrinsic to project design and implementation to a bottom-up one. Adaptation projects should be designed with this in mind — through effective stakeholder identification and engagement early in the design process — but this is often easier in theory than in practice.

We asked, “How can locally led adaptation approaches be better integrated into GCF project or programme design?”

Multiple respondents focused on the need to move away from top-down approaches. One said, “*A bottom-up approach must be adopted, ensuring local communities are involved from the very initial stage and therefore projects are designed in a community-driven approach to feel ownership.*”

Others discussed the importance of accounting for the context through local knowledge and experience. One respondent told us, “*One key strategy is to draw on local level knowledge, not just addressing the scientific considerations but having a clear understanding of the socio-cultural and economic context.*”

This is critical because such communities typically have a much closer connection to, and understanding of, their surroundings. For example, Indigenous Peoples are often experts in identifying changes in their environment, creating solutions to combat the challenges. Such groups are incredibly valuable when designing projects and should always be included in consultations to maximise the information available, especially in areas where there might be scientific data gaps.

Combining local knowledge with current science provides an attractive approach to project design, integrating the best of both while adhering to the, often strict, requirements of major climate funds. One respondent stated that one of the ways to enable effective adaptation aimed at the most vulnerable was through:

> ***“Building local community resilience through integrating local adaptation techniques and knowledge with the internationally recognised best adaptation-related approaches and coming up with innovative financing solutions to fund these techniques.”***

Strict requirements of funds were another challenge cited by respondents, with one respondent stating that *"The climate fund's evaluation criteria does not allow for full consideration of local realities, they are too focused on the Fund's own needs and not necessarily on what countries and local communities actually need."*

To make sure climate projects are designed in a more focused and targeted way, we asked "What can funders do to ensure the most vulnerable communities are at the heart of adaptation projects?"

A frequent response, as is often highlighted in *GCF insight* reports, was the need for integration into strategies, capacity building, and training. Respondents said that "*Locally-led adaptation is better off strengthened by incorporation to GCF NDA and GCF Country Programme*" and "*Local capacity building, community buy-in and collaborative work across sectors/stakeholders*" is needed to ensure projects are better targeted at the most vulnerable communities. Others stated that the GCF needs to *"Give more support for capacity building, taking into account the multiple ways that people learn and share information"* and "*Provide more resources (experts and financing) for project design and preparation with soft procedures for access*".

Some respondents suggested more specific changes to the GCF process, such as developing a criterion to assess what percentage of funds must be allocated to vulnerable communities, with one respondent saying, *"At least 75% of funds should be channelled to supported livelihood improvement activities."* Another said that major climate funds should *"Develop a common risk and vulnerability assessment methodology, based on an internationally agreed approach, to identify the most vulnerable communities"* and then look to fund projects in those highlighted areas.

While responses varied considerably, there was a common theme – **the current level of urgency is nowhere near what is needed**.

Incentives to make adaptation investments more attractive

We've discussed the reasoning behind why adaptation investments are often deemed less attractive to investors compared to mitigation investments. However, this will need to change significantly to combat the current impacts of climate change, mobilise the necessary funding, and build resilience for the most vulnerable. Providing financial incentives can help attract private and public investments in adaptation.

So, we asked, "What investment incentives are needed to make adaptation projects more attractive?"

Predictably, many respondents simply stated that there should be far more grants available rather than equity and loans. This would certainly be helpful for climate action globally, but it is not that realistic. For investors to put forward money, often millions, they will want to receive a return. On the other hand, large loans to vulnerable countries may be useful for building resilience, but if they are invested in activities that are non-revenue generating, it risks plunging a country into debt distress. However, the GCF is progressive in its approach to grant funding, with 41% of its current committed portfolio (USD 5 billion) using this type of instrument.[9]

Other respondents also stressed the value of utilising a range of financial instruments available - not just grants. Multiple respondents noted the need, and demand for:

> ***"High concessionary loans to upscale initiatives since they have low environmental risk. Concessionary loans - either at an interest rate below the standard market levels or through other options such as deferred repayments - help mobilise funding at scale by making the terms more attractive."***

Using financial instruments that satisfy the need of both investors and potential investee countries is an enormous challenge. Nonetheless, we are seeing new, innovative financing mechanisms come to the market. For example, debt-for-climate and debt-for-nature swaps are rapidly growing in popularity. These are tools that allow governments to enhance their climate resilience without removing funding from other critical development areas. Creditors provide debt relief in turn for governments to commit to actions on climate and/or nature.[10]

9 https://www.greenclimate.fund/projects/dashboard
10 https://www.imf.org/en/Blogs/Articles/2022/12/14/swapping-debt-for-climate-or-nature-pledges-can-help-fund-resilience

Recent real-world examples of this include:

Portugal swapping the entire USD 153 million owed to them by Cape Verde in exchange for investments in the country's environmental and climate fund[11];

In Ecuador, where a debt-for-nature swap will allow millions of dollars to flow into the conservation of the Galapagos Islands[12].

While financial instruments were a major focus, others pointed out things such as the need for clear and supportive policy and regulatory frameworks, as they are essential to incentivising investment in adaptation. Moreover, facilitating partnerships between the public and private sectors can leverage resources, expertise, and innovative financing models. Simplifying and improving access to climate finance for adaptation projects by simplifying application processes, providing technical assistance, and reducing transaction costs can facilitate access to funds, particularly for smaller-scale projects and local stakeholders who often face barriers to accessing climate finance.

We know that private sector interest in adaptation investments pales in comparison to the public sector and this report has touched on the challenges surrounding return on investment as a key sticking point. But we want to know how the sector could be better included in these projects, so we asked respondents:

"What can funders, like the GCF, do to improve private sector participation in adaptation?"

Several respondents pointed out that this is very challenging with one even saying "*The private sector is usually after faster profits, which only mitigation projects can offer. Hence, adaptation is usually left to the public sector which is inherently inefficient.*" Others also touched on blended finance instruments, suggesting funds introduce a broader use of reimbursable grants, concessional loans, and as well as assuming the first loss/ primary risk-taking position in adaptation-related projects to leverage private sector financing.

Yet, most of the responses fall within categories such as awareness raising (of both funds and success stories), fund processes and structure of deals.

11 https://www.reuters.com/business/environment/portugal-swap-153-mln-cape-verde-debt-nature-investments-2023-06-20
12 https://www.reuters.com/world/americas/ecuador-seals-record-debt-for-nature-swap-with-galapagos-bond-2023-05-09/

Multiple respondents pointed out that since the private sector is far less involved in these investments, their awareness of climate funds as a potential investment partner is very low.

One said,

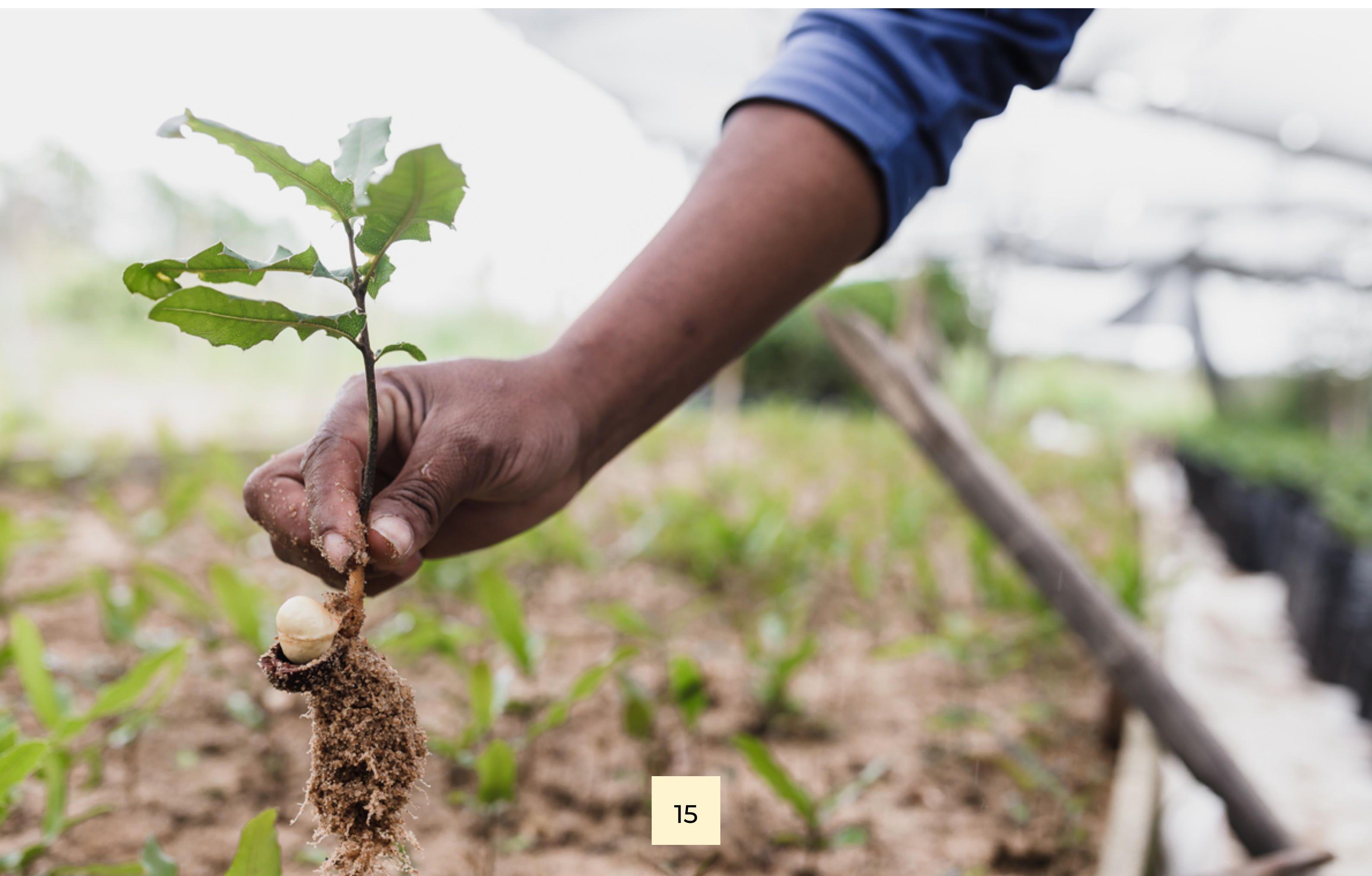
> ***“Increase awareness within the sector to the role and function of funds like the GCF, many private sector actors do not know about major climate funds as potential sources of co-financing.” Another said, “Engage with the private sector and train them on the benefits of the GCF and the process so they understand what the fund looks for in proposals.”***

Awareness of private sector success stories was also mentioned. If the private sector can see evidence of successful case studies relating to adaptation investments, they may be more inclined to explore these opportunities.

One respondent said,

> ***“Reporting on the success stories and financial returns around those GCF private sector adaptation projects, using private sector language and not overly technical GCF wordings.”***

This is an important point - it is essential to talk in a language familiar to the private sector rather than the GCF. The majority of private sector investors are investment experts before they are climate experts, so overly technical, unfamiliar language becomes a real barrier.



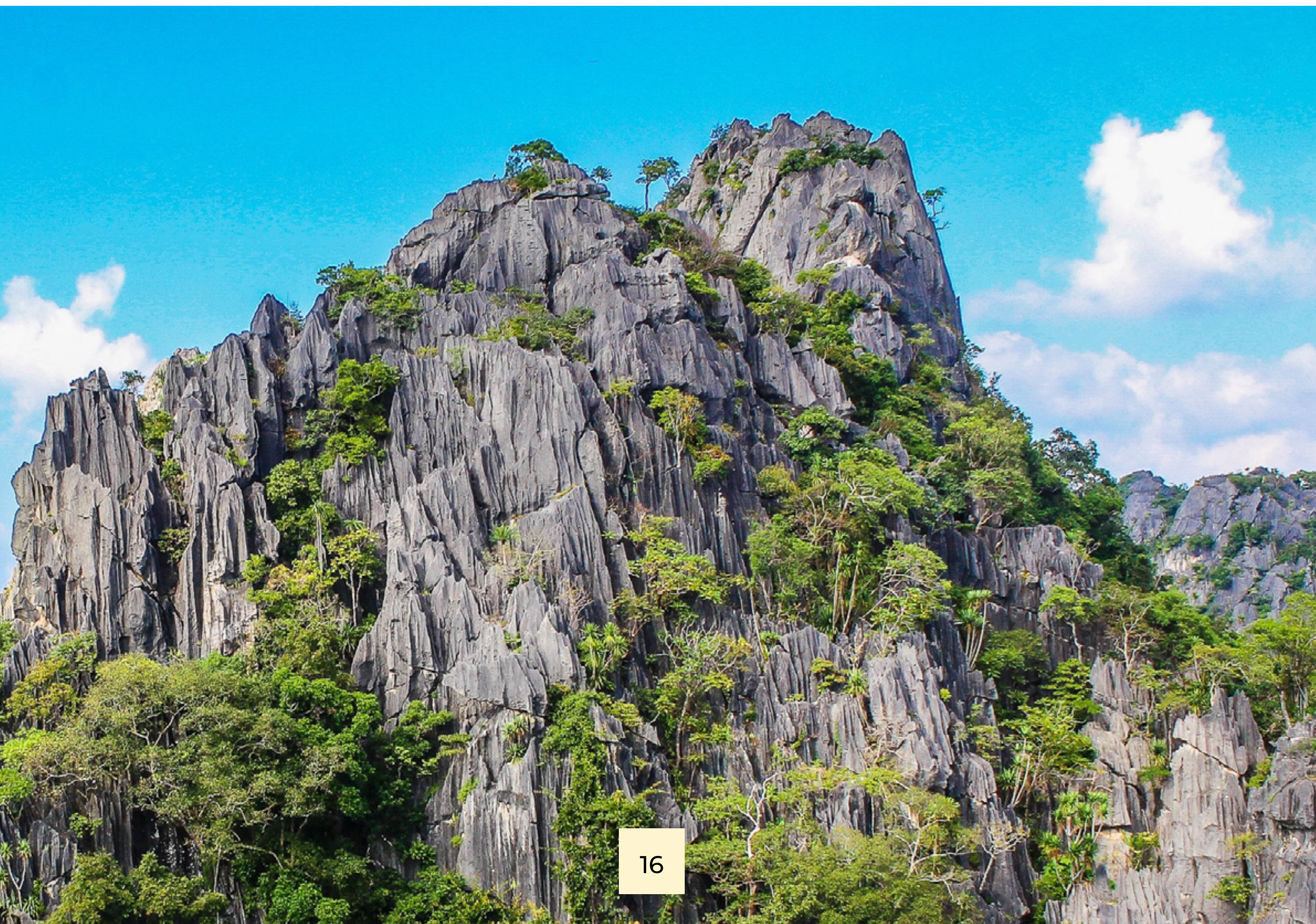
Another respondent suggested demonstrating business opportunities by evidencing how adaptation projects can create new markets, foster innovation, and support long-term business resilience. Moreover, facilitating partnerships between the private sector, public sector, and civil society organisations can promote collaboration and knowledge sharing. These lessons learned can then be used as documents for private sector actors to learn from when pursuing such investment opportunities.

Specific targeting of the sector could also be a tool used. Given the private sector's preference for investment in technological innovations, some suggested a specific private sector call for proposals from the GCF focused on adaptation innovations.

Many of the answers touched on the challenging processes and long timelines of the GCF, which we discussed in depth previously in *GCF insight* 19 and 21.

One respondent said,

> ***"Make the process less cumbersome, it often takes well over a year for private sector to get projects approved." Another noted, "The GCF needs to reduce project development and instruction delays, private sponsors are often not comfortable with the length of time experienced in this process."***



Our final insights

Ultimately, our respondents have laid bare a number of key considerations for anyone looking to work on adaptation projects in collaboration with a multilateral development fund such as the GCF.

First of all, the industry must recognise that there are very real difficulties in creating convincing incentives for investment in adaptation - especially when targeting private sector actors. However, our respondents have noted several potential solutions for this:

Utilising a range of different financial mechanisms, such as high concessionary loans, debt-for-climate, or debt-for-nature swaps, amongst others;

Increasing the awareness of GCF function and value for the private sector.

Any one of these solutions should not be seen as a panacea, but should rather be looked at as hopeful avenues for increased adaptation investment that should be used in tandem with each other.

One of the most important features that funds and project developers need to communicate is whether there is revenue-generating potential associated with particular projects. It is arguably one of the best ways of attracting investment, especially when trying to attract the private sector.

Finally, adaptation investments would benefit from the incorporation of innovative financial instruments. If this can be done while simultaneously increasing the capacity building capabilities of target areas (communities, territories, local governments etc.), we may see adaptation investments being both easier to secure and adaptation projects easier to implement.

This report was independently developed by E Co. consultants

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About GCF insight

This survey and report is an initiative of E Co., emerging from work we are doing to develop low-carbon, climate resilient projects. E Co.'s team of consultants designed and administered the survey and prepared this report. E Co. has conducted this research independently and is not affiliated with the GCF, the GCF Secretariat or donors. The views expressed in this report are those of the authors and do not represent those of the GCF. Nothing in the interviews or any information or material relating thereto shall be construed as implying any official endorsement of or responsibility on the part of the Green Climate Fund.

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About E Co.

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Climate finance expertise

Our 99% success rate in unlocking climate finance has led to the mobilisation of over USD $3 billion of climate finance from global climate funds, including: GCF, GEF, Adaptation Fund and NAMA Facility. We are proud members of the GCF Communities of Practice network.

Funders, project developers and local beneficiaries alike trust us to work on their projects and programmes. This spans public and private sector organisations, from National Designated Authorities (NDAs), multilateral development banks, Accredited Entities, to NGOs.

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*We have 100% funding success with E Co - **EBRD***

*We have lots of consultants working for [us] but E Co. stood out - **World Bank***

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