



Gaps in the climate finance investment chain

Early findings from the CFA on what climate projects need to progress, and what they are missing

The CFA programme

The **Climate Finance Accelerator (CFA)** is a £10 million capacity building programme funded by International Climate Finance through the UK Government's Department for Business, Energy, and Industrial Strategy (BEIS); that is working with emerging economies to help them achieve their national climate plans and Nationally Determined Contributions (NDCs).

The CFA has been **designed to support the development of investable low-carbon project pipelines** through the first two stages of the climate finance investment chain. It does this by working with projects and businesses that are seeking finance, and supplying them with a mix of group, thematic, and one-to-one capacity building leading up to exposure of the projects to a range of finance providers in an intensive workshop setting.

As well as providing support to projects, **the CFA aims to work with finance providers in local and international markets to better appreciate the pipelines available to them**, especially in sectors that they are unfamiliar with. The programme also makes recommendations to policymakers in partner countries based on the barriers identified by project proponents and financiers during the CFA's hands-on project development process.

In supporting and partnering with the three key sets of actors in accelerating climate finance (projects, finance, policy), the CFA is part of the UK's efforts to support climate action at scale. It enables a **collaborative approach to unlocking a steady flow of funding for low-carbon climate projects, helping to remove existing climate finance challenges**.

Between 2017 and 2020, the UK Government funded pilot activities in Colombia, Mexico and Nigeria to test the CFA approach. These pilots confirmed the demand for the CFA and informed the decision to scale up the concept. The full programme, started in 2020, continues to operate in Colombia, Mexico and Nigeria, has added South Africa, Turkey and Peru in 2021 and Egypt and Pakistan in 2022.



Project presentation at the CFA event in London, September 2017

Mapping the climate finance landscape

Since April 2021 experts from the CFA programme have been gathering information on the **climate finance landscape** in its six partner countries. Using this information, recommendations have been made on how to close some of the finance supply and demand gaps identified. Over 500 providers (or potential providers) of climate finance were mapped across these countries.

In parallel, the CFA has launched **calls for proposals** for promising low-carbon projects in South Africa, Turkey, Mexico and Peru, where it can provide capacity building assistance. The project selection process has generated a dataset of proposals that provides well-evidenced insights into the barriers faced by project proponents in developing bankable projects, and their capacity building needs.

Based on the landscape mapping research conducted, this document highlights some of the **gaps in the climate finance investment chain** across the CFA partner countries. We hope this will spark conversations among policymakers and donors on areas that are widely relevant and highly scalable, where they can focus their resources.

We also highlight the **capacity building needs** identified in the project selection process which should provide low-carbon project proponents with a better understanding of what constitutes an investable proposition, from a very practical, bottom-up perspective.

This document provides some tangible guidance on where resources should be focused in order to accelerate financing for climate mitigation over the next decade.



Presentations at the CFA Colombia workshop in Bogotá, March 2020

Summary of findings and recommendations

Low carbon projects must navigate three or four steps between project initiation and being financed - this is what we call the **climate finance investment chain**. Through the analysis of the detailed research and engagement with over 500 project proponents we identified **three key findings**:

- 1 There is a critical lack of financial and technical support available to projects in the early stages of the climate finance investment chain.
- 2 Finance and access to finance are significantly deficient at the project initiation and project development stages of the climate finance investment chain for reasons that include; limited visibility over project pipelines and lack of familiarity with low carbon business models.
- 3 There are shortages of, or difficulties in, projects accessing technical and capacity building support e.g. around finance and business models or Gender, Equality and Social Inclusion (GESI).

Based on lessons from the CFA pilots, the experience of local CFA delivery partners and the findings in this report we make **three main recommendations**:

- 1 Organisations financing or otherwise supporting climate projects should understand where they fit into the climate finance investment chain and how they can help to make it more effective. They should proactively seek out partners on either side of themselves in the chain.
- 2 Organisations, such as international finance institutions or impact investors with the appropriate funding or policy levers should focus on supporting projects in the early stages of the climate finance investment chain, ideally in partnership with others, such as venture capital providers.
- 3 Organisations should work together and take a strategic approach to developing a pipeline of low-carbon projects. This is essential to bringing more viable businesses through the early stages of the climate finance investment chain and to ensuring a better spread of support across sectors.



Final project presentations by the Nigeria delegation at Aviva during the CFA Pilot, September 2017

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Definitions:

- Technical assistance refers to topics such as financial modelling, business plans, research, studies, design work, securing permissions etc.
- Capacity building refers to building the capacity of management and staff through mentoring, training and other skills development, including in regard to technical understanding, investor outreach, HR, gender equality and social inclusion (GESI) etc.
- The words 'projects' (such as energy, transport or waste infrastructure projects) and 'businesses' (e.g. providing low-carbon products and services) are used interchangeably.

The Climate Finance Accelerator (CFA) partner countries are:



Colombia



Egypt



Mexico



Nigeria



Peru



Pakistan



South Africa



Turkey

To find out more about opportunities to engage with the CFA programme please visit:

<https://www.gov.uk/government/publications/climate-finance-accelerator/climate-finance-accelerator> or

email: cfa@beis.gov.uk



Launch of the CFA at the London Stock Exchange, September 2017

The climate finance investment chain

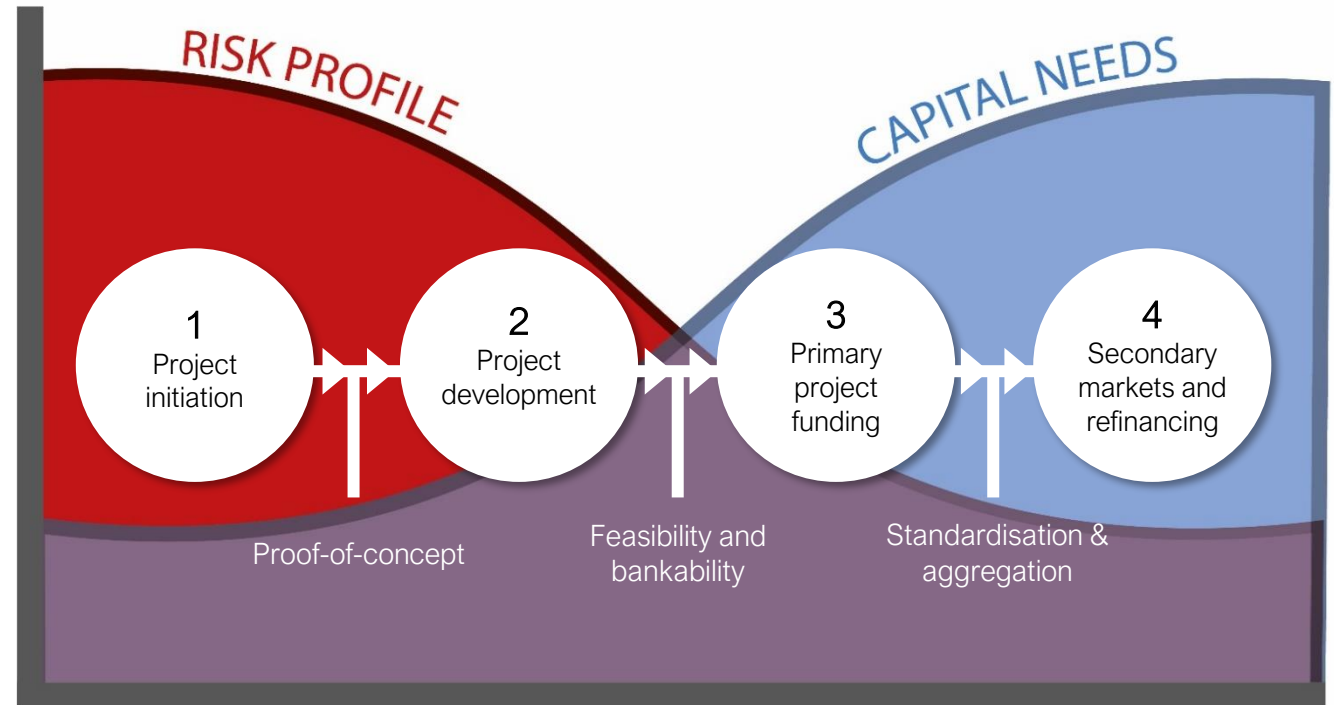
An organising principle of the CFA programme is the concept of a ‘**climate finance investment chain**’. The investment chain concept reflects that in most instances there is a three- or four-step process that projects go through on their journey from initiation to development to finance. Each step requires access to particular types of finance, which must be readily available in any well-functioning climate finance ecosystem. Understanding where there are gaps in the availability of such finance makes it possible to improve the investment chain to enable greater flows of climate finance.

The climate finance investment chain comprises the following stages:

1. **Identifying low-carbon projects** that can help reduce a country’s greenhouse gas (GHG) emissions, as well as its inclusive economic development objectives and other co-benefits (such as adaptation).
2. **Developing the business model, commercial structure and management capacity** of these projects to the stage where they can attract primary finance, typically initially in local capital markets.
3. **Securing this primary finance**, which in many instances will involve blended finance techniques capable of funding projects at scale over time.
4. For projects of a certain size and in relevant sectors (e.g. renewable energy, buildings, transport), **refinancing these projects** into green bonds and similar long-term investment instruments that are attractive to institutional investors and global capital markets.

As figure 1 indicates, the risks inherent in projects and businesses typically decline over time, while their capital needs typically increase.

Figure 1 – the climate finance investment chain



The lack of climate finance

When implementing the CFA with the partner countries, we analyse the **types of finance that are relevant** and that should ideally be available in the country at each stage of the investment chain. We then assess these against their **actual availability in the market** and collate this information in a matrix that enables the identification of gaps.



As per the key below it, the matrix shows the degree to which finance of different types is available at each stage of the investment chain, 'aggregated' across the six countries studied. Where there are differences at a country level, decisions on the main colouring of cells have generally been made on a 'positive' basis, e.g. 'rounding up' where say 4 countries out of 6 agreed. A small number of cells had evenly split availability and this is represented with the relevant colours in the single cell. The matrix uses the same structure and definitions across all partner countries.

Figure 2 – Summary of findings from the landscape mapping across 6 partner countries

SOURCE	PROJECT INITIATION	PROJECT DEVELOPMENT	PRIMARY PROJECT FUNDING	SECONDARY MARKETS AND REFINANCING
Commercial banks	Not relevant	Not relevant	Partially available / Available	Available
Institutional investors	Not relevant	Not relevant	Available	Available
Private equity	Not relevant	Significant gap / Available	Available	Available
Corporate funders	Available	Available	Available	Not relevant
Asset managers	Not relevant	Not relevant	Available	Significant gap / Available / Available
Venture capital	Significant gap	Significant gap / Available	Available	Not relevant
Impact funds	Available	Available	Available	Not relevant
Angel investors	Significant gap	Significant gap	Significant gap	Not relevant
Microfinance and credit unions	Not relevant	Not relevant	Available	Not relevant
National development banks	Available	Available	Available	Not relevant
Climate funds	Significant gap	Available	Available	Not relevant
Bilateral development partners	Available	Available	Available	Not relevant
Multilateral development partners	Available	Available	Partially available / Available	Not relevant
NGOs and philanthropic organisations	Available	Available	Available	Not relevant

Relevance / availability of finance	
Not relevant	Significant gap
Partially available	Available

There are significant gaps in almost all types of climate finance

From the matrix in figure 2, repeated below for ease of reference, we can draw the following main conclusions from across CFA countries:

- With a few isolated exceptions in particular markets, **there is either a shortage or a serious shortage of funding** across all types of finance that are relevant in stages one and two of the climate finance investment chain.
- **Angel investors, venture capital** and (in stage one) **climate funds** are the most seriously deficient sources of finance. With publicly-controlled climate funds the issue is often accessibility of funding (e.g. protracted/complex application procedures), rather than availability. In the case of angel investors and venture capital, local traditions and context-specific risk preferences can affect who is likely to invest early-stage high-risk capital, but these sources are also responsive to fiscal stimuli.
- Other public sources of finance, such as **national development banks**, or **bilateral and multilateral development partners**, are in short supply in all three stages of the investment chain where they are relevant. Issues relate (in stages one and two) to low levels of ‘hard’ dollars (for investment) versus ‘soft’ dollars (for technical assistance/capacity building). In stages two and three, issues relate to lack of availability of risk-sharing or risk-reducing instruments, such as guarantees, and lack of familiarity with climate sectors outside energy. In all stages, the risk appetite of these sources of finance is probably too low.
- Without changes to risk appetite and investment practice, gaps between the demand for capital from these public sources and availability are likely to increase. This is as a result of **higher ambition and robust estimates from updated Nationally Determined Contributions (NDCs)**, less concessional finance available for emerging economies and lower fiscal headroom, in part because of Covid-19 response.

- The shortage of **impact funds**, as shown figure 2, may reflect the fact that the countries surveyed are of a higher income status than those on which such funds typically focus. These funds also mostly invest in energy and related sectors, and need to broaden their expertise. Similar issues may apply to philanthropic capital.
- There is a relatively good availability of finance from **commercial banks**, reflecting the size and maturity of these sectors of local finance markets. **Private equity** is also broadly available. Where there are challenges in accessing finance for low-carbon projects from these sources it is often the result of their low risk appetite and reliance on traditional financing techniques and collateral requirements.
- Investors in the **latter stages of the investment chain** either do not have specific climate investment goals or cannot tag and track the investments they do make.

SOURCE	PROJECT INITIATION	PROJECT DEVELOPMENT	PRIMARY PROJECT FUNDING	SECONDARY MARKETS AND REFINANCING
Commercial banks			Yellow, Green	Green
Private equity		Red, Yellow	Yellow	Green
Asset managers			Green	Red, Yellow, Green
Venture capital	Red	Red, Yellow	Yellow	
Impact funds	Yellow	Yellow	Yellow	
Angel investors	Red	Red	Red	
National development banks	Yellow		Yellow	
Climate funds	Red	Yellow	Yellow	
Bilateral development partners	Yellow		Yellow	
Multilateral development partners	Yellow	Yellow	Yellow, Green	

Insights from the CFA project selection

The CFA process

Critical to the success of the mobilisation of climate finance is the identification of 'investable' projects, and the development of these into a pipeline that can be credibly presented to financiers. As a capacity building programme, the CFA has been developed to support effective engagement with project proponents across a number of phases:

Project selection

1. Call for proposals
2. Initial review of all projects received
3. Detailed review of project longlist
4. Final project selection

Project support

1. Detailed needs assessment
2. Capacity building to the selected cohort of projects
3. Financial expert review and consequent changes
4. Follow-up with the cohort

Project selection criteria

The project or business:

- Will achieve measurable climate outcomes
- Will require funding at scale (over US\$ 5–10 million)
- Is at least at the pre-feasibility stage
- Will generate commercially viable returns in the long-term
- Will have positive impacts on GESI

Information gathered

During the first three phases of the CFA process, a significant amount of information is gathered about the status of projects and their need for non-financial assistance in starting and/or continuing their journey towards an investable state.



Stage 1: Call for proposals

We collect information on projects such as the financial model, the project rationale, the team, the climate mitigation impact, and capacity building needs.



Stage 2: Initial review

We conduct an initial assessment to determine whether the project meets the selection criteria, and how we can add value through capacity building.







Stage 3: Detailed review

Technical and financial experts conduct a detailed analysis of the projects against a number of key criteria that help to test the 'bankability' and suitability of the project for receiving technical support. This analysis is followed by a discussion with pre-selected projects to identify their capacity building needs.

Call for proposals and selection by country and sector

Figure 3 – Distribution of proposals by partner country

PROJECTS	ALL PROPOSALS	SELECTED PROPOSALS
 South Africa	123	13
 Peru	40	6
 Mexico	32	13
 Turkey	31	6
TOTAL	226	38

- 38 projects (17% of a total of 226) were selected to benefit from capacity building from the CFA (across the above countries).
- Mexico had the highest ratio of successful projects (40%), possibly reflecting the relatively higher availability of early-stage finance.
- The energy sector, followed by the waste sector, had the most project proposals and the most projects selected. This reflects the market's familiarity with the technologies and the advanced nature of the business models in these sectors.
- A number of projects in the energy sector were rejected as these should be able to access mainstream finance, and it was decided that the CFA should focus more in other sectors, to address country priorities.




Figure 4 – Distribution of proposals by sector

SECTORS	ALL PROPOSALS	SELECTED PROPOSALS
Energy	88	12
Waste	37	7
Agriculture, forestry and other land use	24	7
Transport	15	8
Industrial	11	2
Water	10	2
Other	16	0
Housing	7	0
Technology	5	0
Education	2	0
Blue Economy	1	0

*other sectors include: Health, Water, or a combination of different sectors

Insights into project value and stages

Figure 5 – Distribution of proposals by project type

PROJECT TYPE	ALL PROPOSALS	SELECTED PROPOSALS
 Start-up	172	30
 Growth	39	6
 Other	15	2

- The majority of projects received and selected were in the area of US\$ 10–20 million, although we also identified a tendency for projects to overestimate their finance needs.
- The majority of projects received (76%) and selected (79%) were start-up projects. This finding broadly reflects the market for low-carbon projects and the target for CFA support.
- **Growth projects** (existing projects looking for additional investment and support to expand) **and established businesses usually have a route to funding** based on their track record and existing connections, and they may also be able to access additional funding sources, thereby requiring less support.

The CFA has already benefitted many stakeholders in the partner countries. As an example, below is feedback from the first cohort of project proponents who had capacity building support and participated in the CFA in-country event in South Africa:

“Support was really good because of how tailored and well-curated information was, and how strong the expert teams were. The financial experts at the event were also very well matched to projects.”

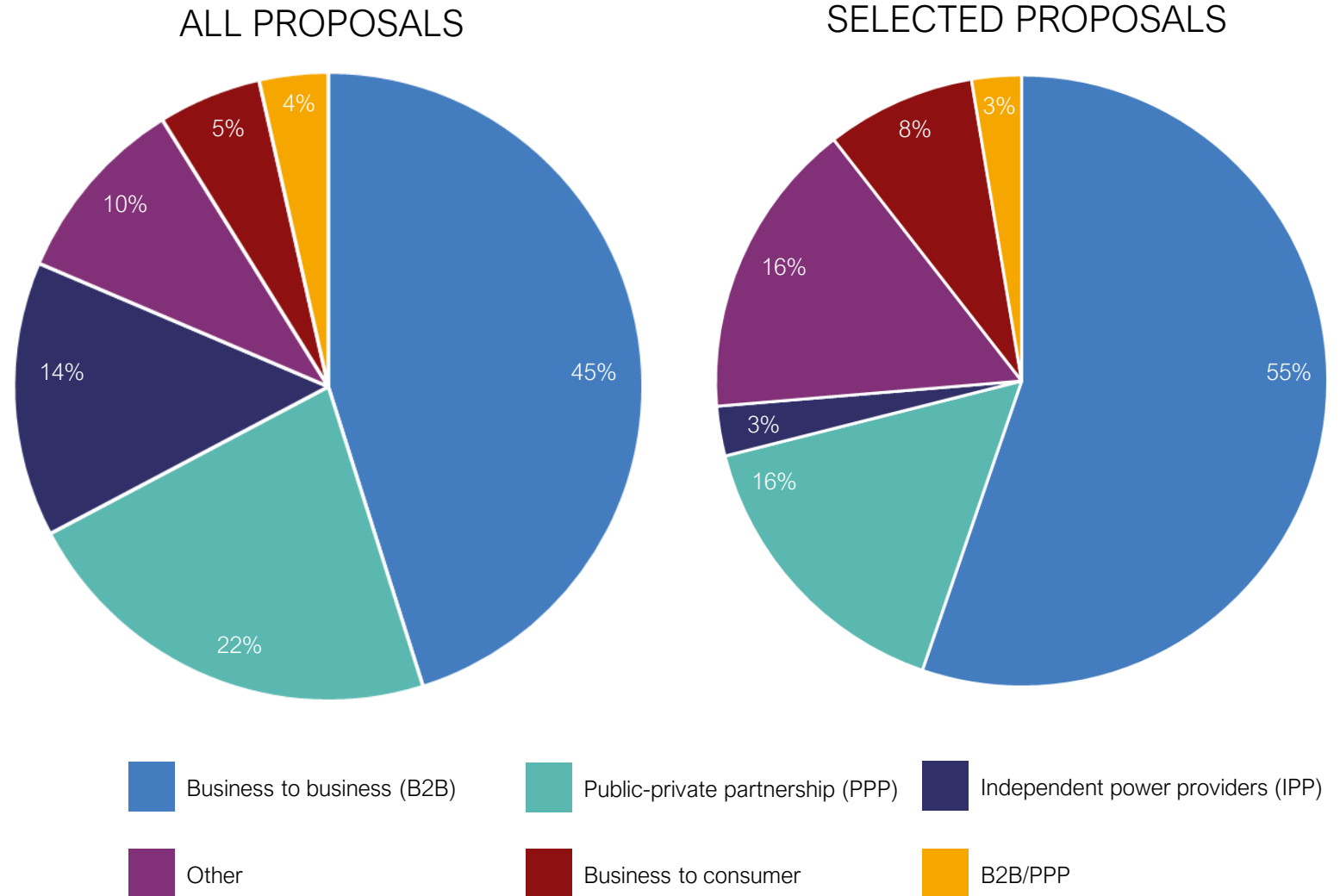
“The support empowered us with knowledge and skills and helped us hone our pitching skills and refine our business plan. It also helped tremendously in developing an understanding for what the climate finance landscape looks like.”

“As effect of participating in the capacity building and the event, one financier has progressed funding discussions, and three others have requested or welcomed further discussions.”

Business models

- **Business to business** was the most prevalent business model among projects received (101 out of 226, or 45%) and selected (21 out of 38, or 55%).
- This reflects the fact that businesses often target other businesses as their initial market, because there is usually a clear and detailed demand, with the move to the consumer market occurring later. B2B contracts (between two or more businesses) are usually simpler, and have a well-defined structure.
- Public-private partnership (PPP) projects usually need to follow strict and competitive public procurement processes and rules, and there would usually already be sources of finance lined up for these.

Figure 6 – Distribution of proposals by business model



Rationale for rejecting projects

Figure 6 – Reasons for rejecting projects

REASONS	NUMBER REJECTED
At too early a stage	95
Concerns with financial feasibility	28
Small project size	29
Unclear proposition	26
Issues with business model	23
Low social/environmental impact	22
Inexperienced project team	20
Low CFA additionality	13
Unclear route to market	6
Concerns with technical viability	5

- In the vast majority of cases, projects were rejected because they were at too early a stage of development. This finding clearly reflects the great need for early-stage finance and support in each of the CFA partner countries.
- Other reasons for rejection include concerns with financial feasibility, small project size, and low environmental and social impact in relation to the CFA partner country’s NDC – all of which would impact the bankability of the projects, and therefore their attractiveness to financiers.
- A large number of projects were rejected for more than one reason.
- We communicated the reasons for rejection to project proponents, and where possible made suggestions for improvements / new approaches. This was important as these same reasons would cause finance providers to reject projects.
- When providing feedback to project proponents about the reasons their projects have not been successful, we’ve also guided them towards other useful resources to support them.

“We have greater knowledge of how most are struggling to raise funding – we are not the only ones!”

Project proponent participating in the South Africa CFA in-country event, October 2021

Support needs

- Two thirds of project proponents indicated that access to investors was a key reason for requesting CFA support.
- The large number of projects rejected for being at too early a stage indicates that project proponents believe that they need access to investors before they are ready, when in reality their principal need is capacity building.
- Similarly, of the projects selected, even those that stated that their main requirement for support was 'access to investors' also needed capacity building.

Figure 7 – Number of proposals by type of support requested

SUPPORT REQUESTED	NUMBER OF PROPOSALS	SELECTED PROPOSALS
Access to investors	157	32
Technical assistance	68	9
Visibility/networking	26	2
Other	8	0

“The CFA helped me understand the risks, opportunities, and constraints that low carbon projects face in accessing finance”

Financial sector expert participating in the South Africa CFA in-country event, October 2021



Stakeholder-specific recommendations

Governments

- Seek official development assistance (**ODA**)/**philanthropy partners** to create new technical assistance/capacity building funds serving projects in new sectors (i.e. beyond renewable energy).
- **Improve ease of access** and publicise existing technical assistance/capacity building provision. Where schemes require match funding from businesses seeking help, e.g. philanthropy partners for this funding.
- **Seek capacity building for your own staff** so they understand business needs better.
- Look for ways to **convene stakeholders** from government, finance and business, to improve mutual understanding of opportunities and constraints.
- **Create fiscal incentives for early-stage investors**, such as angels and venture capital providers. Where such funders already exist, publicise or seek help (e.g. from ODA providers/philanthropies) to publicise early-stage funders, such as angel networks.
- Get one or more **appropriate entities accredited** with major project preparedness funding providers like the Green Climate Fund (GCF) or Global Environment Facility (GEF).
- Add **technical assistance**/capacity building provision to discussions on country strategies with bilateral and multilateral development partners.
- Seek ways to deepen the availability of **skilled intermediation** (i.e. between projects and finance) in local markets.



Launch of the CFA at the London Stock Exchange, September 2017

Grant Providers

- Provide **early-stage support** to scale up investment for climate-related projects and use peer networks (e.g. among climate-focussed philanthropies) to 'spread the word' on needs in these stages of the investment chain.
- **Map existing provision** of technical assistance/capacity building and help with publicising available schemes to potential users.
- Where access to such schemes is difficult or expensive for businesses, **look for ways to improve or subsidise** this.
- Where provision is missing, **seek out potential partners** for new, gap-filling schemes. These might include sector-focussed technical assistance/capacity building funds or 'sidecar' funds attached to impact investing funds, or they might be organisations that subsidise capacity building of providers themselves.
- For those already providing technical assistance and capacity building (e.g. climate fund project readiness schemes), **seek ways to assist with publicity** for and access to these schemes, which can often be hidden and extremely complex to apply to, and/or have costs attached.
- Encourage the expansion of / swapping to **venture capital funds and private equity** investing in the development stage of projects, for example by funding first loss tranches of funds.
- Fund **information swapping networks** for project proponents, especially inter-sectoral ones, as well as investor-facing databases, such as listings of projects seeking finance.
- Fund access to **subscription services**/established online trainings for businesses.
- Fund **CFA-type providers** of 'pipeline convening' services and look for ways to grow the availability of **skilled intermediation** (i.e. between projects and finance) in local markets.



Financial expert panel session during the CFA Pilot in London, September 2017

Angel investors/venture capital

- To enable the most effective use of your own resources, proactively consider what types of **technical assistance/capacity building** would improve the quality of projects submitted to you, and make these known to relevant funders.
- Improve the **visibility of your 'networks'** to project proponents. Publicise the minimum requirements for projects to help reduce rejection rates.
- Consider the setting up of **'sidecar' funds** to provide technical assistance/capacity building to investees, and seek funding partners, such as philanthropies and bilateral funds, to create such facilities.
- Support project proponents in **lobbying for improved early-stage technical assistance/capacity building** provision and/or improved/cheaper access to such provision if already present.

Private equity/impact funds

- Many of the suggestions for angel investors/venture capital and for later-stage investors (below) apply, but in particular the **setting up of sidecar funds providing technical assistance/capacity building**.
- Support the growth of **skilled intermediation** in local markets by paying reasonable fees.

Corporate funders

- While the principal aim of corporate investment will be to achieve growth or diversification, whether organic or via acquisition, **companies can have a wider support role** via supporting networks in new sectors, mentoring programmes, research grant programmes etc.
- Corporations, especially when diversifying, often **need capacity building support** themselves in areas such as GESI.



Delegation panel discussions during the CFA Pilot in London, September 2017

Project proponents/entrepreneurs

- Consider carefully the actual stage that your project or business concept has reached and whether it **is really ready to seek access to investors** or if it needs further development.
- In new sectors, where business models are especially fluid and financiers are unfamiliar with the technologies involved and how to finance them, **consider businesses similar to yours as partners** as well as (or even instead of) competitors.
- Seek ways to partner with other businesses to **lobby for the sector** and technology, and the technical assistance/capacity building support it requires.

Later-stage investors (e.g. commercial banks, institutional investors, asset managers)

- Seek ways to **engage with the project pipeline** to help make propositions more viable, for example via webinars/workshops to educate project proponents on what you are looking for.
- Where you are working with relevant stakeholders, such as consultants, insist that they also **engage with earlier-stage pipeline and new climate sectors** (i.e. beyond renewables).
- **Support initiatives convening interchanges** between government, project and finance stakeholders.



Presentations at the CFA Colombia workshop in Bogotá, March 2020

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