GREEN CLIMATE FUND

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Review of the financial terms and conditions of the Green Climate Fund financial instruments – Addendum:

Review of the financial terms and conditions of the Green Climate Fund financial instruments

Review of the financial terms and conditions of the GCF's financial instruments

04/09/2017

Final Report

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Validation	FB
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ACRONYMS AND ABBREVIATIONS

AE	Accredited Entity
AFD	French Development Agency (Agence française de développement)
AMA	Accreditation Master Agreement
CTF	Clean Technology Fund
DFI	Development Finance Institution
EE	Energy efficiency
EIB	European Investment Bank
FAA	Funded Activity Agreement
FFEM	French Global Environment Fund (Fonds français pour l'environnement mondial)
FP	Funding Proposal
GCF	Green Climate Fund
GEF	Global Environment Fund
ITAP	Independent Technical Advisory Panel
MDB	Multilateral Development Bank
NDA	National Designated Authority
PM	Project Manager
PMC	Project Management Costs
RE	Renewable energy
T&Cs	Terms and Conditions

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A. EXECUTIVE SUMMARY

A.1. METHODOLOGY

Objectives and overall methodology

The objective of this review, as set in its terms of reference, is:

– To evaluate the compliance with the GCF's policies of the terms and conditions of the financial instruments extended in the framework of projects and programmes approved by the Board;

– To propose for the Board's consideration additions or adjustments to the adopted financial terms and conditions which should be consistent with GCF's policies.

GCF key principles on concessionality and additionality are to tailor grant elements to incremental costs or to the risk premium required to make the investment viable, and to seek the right level of concessionality, so as not to displace investments that would otherwise have occurred.

However, there is no way to determine with certainty whether the two principles above are met on any given project, because the exact counterfactual (what would have occurred without the GCF participation) does not exist[1].

Absent the possibility of simple, clear-cut determination, our approach combined:

– **Basic compliance**: assess the compliance of approved projects and programmes to the principles and criteria outlined in the GCF policies from an analysis of basic data on all projects;

– **Pattern analysis**: identify meaningful patterns in the data on all projects and programmes approved by the Board, which may evidence issues not visible at the individual project or programme level;

– **Case studies**: more detailed reviews for a sample of projects[2] through interviews that provide for an understanding of the underlying context of each selected project;

– **Process review**: through case studies and interviews with AE and GCF staff, identify whether the processes implemented to decide on terms and conditions (T&Cs) were adequate to lead to compliance with Board policy.

[1] See for instance Paddy Carter, Overseas Development Institute / OECD, 2017, "Wanted: mechanism for additionality", https://oecd-development-matters.org/2017/05/10/wanted-mechanism-for-additionality/

[2] FPs 017, 021, 029, 033, 038, 039, 043, 044, representing a mix of adaptation/mitigation, private/public-sector, instruments and type of AEs.

We also carried out a benchmark of policies and practices in other organizations with similar policy mandates.

Through these tools, the review provides for project- and portfolio-level analyses with the purpose of formulating recommendations to the Board and the Secretariat both in terms of how to better enforce Board guidance (which is recalled in section C.1), and how to adjust Board guidance, towards better achieving GCF's core objectives.

Measuring concessionality

To perform an analysis of the GCF portfolio in terms of financial T&Cs, and more specifically in terms of the level of concessionality of the instruments extended to projects and programmes approved by the Board, we must provide for quantitative definitions of a few concepts:

– The **grant element** of a loan is defined by the World Bank as "the difference between the loan's nominal value (face value) and the sum of the discounted future debt-service payments to be made by the borrower (present value)"[3]. The International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development (OECD) use the same definition.

– The **level of concessionality** for a given instrument is defined in this report as the ratio of its grant element to its face value.

We think that the key points to consider for establishing **a grant-element calculator** are the following:

– **It must be adapted to its purpose**: a grant-element calculator can be used for a general portfolio analysis, as is the case in this review, or to inform the decision-making process on a specific project. Although both purposes can be useful for the GCF, we see these two purposes as contradictory since comparing and analysing the levels of concessionality of different types of instruments if those levels are calculated with different methodologies could lead to misinterpretations of the results obtained.

– **It must be adapted to its users**: we find crucial to design a transparent and user-friendly calculation method, so that all accredited entities share the same understanding of how the GCF approaches concessionality.

– **It must be consistent with data quality**: drawing on this last point, the other shortcoming of a sophisticated methodology is that it can give the illusion that the results obtained are precise, regardless of data quality. The data available in many emerging markets is most often, if existent at all, very inconsistent and unreliable. The sophistication of the calculator must be coherent with the quality and relevance of the available data.

[3] IDA website: http://ida.worldbank.org/financing/grant-element-calculations.

– **It must not reverse the GCF's mandates**: the GCF is not a financial investor seeking to maximise its return. Its primary objective is to tackle the causes and effects of climate change in beneficiary countries. Using concessional funds as efficiently as possible to complement markets is only a secondary requirement to this primary objective. Using sophisticated market comparators could lead to restricting the use of instruments necessary to correct market failures, such as equity and guarantees, as concessionality, and thus discriminate against these riskier products. This could be highly counterproductive: acknowledging that many barriers come from market failures implies that the GCF, to address such barriers, is in fact taking less risk than the non-loan instrument suggests, and therefore that the market comparator is biased against GCF primary objectives.

Since this review aims at comparing all financial instruments approved by the GCF Board, we have decided to adopt the World Bank's approach and have used a flat discount rate of 5%. This approach is consistent with previous calculations undertaken by the GCF.

A.2. KEY FINDINGS

At portfolio level

The GCF Board has approved 55 financial instruments corresponding to 43 projects and programmes until its 17th meeting. While a larger share of nominal GCF resources went to private funding proposals (53%), the grant-equivalent amount of GCF public funding accounted for 79% of the total grant-equivalent amount of GCF funding.

Table 1: Overview of GCF portfolio

Private sector	Number of instruments	Face value of GCF instruments	
Grants	7	$ 82,359,334	7%
Loans	5	$ 692,840,666	58%
Equity	5	$ 397,222,000	33%
Guarantee	1	$ 20,000,000	2%
TOTAL	18	$ 1,192,422,000	

Public sector	Number of instruments	Face value of GCF instruments	
Grants	33	$ 890,646,916	83%
Loans	4	$ 177,000,000	17%
TOTAL	37	$ 1,067,646,916	

This is mainly because the level of concessionality of financial instruments extended to the private sector is much lower (22% on average) than the level of concessionality for the public sector (93%), as illustrated in Table 2. This very high concessionality stems from the nature of financial instruments, since 83% of instruments provided for public-sector projects were grants.

Table 2: Overview of GCF concessionality[4]

Private sector	Vulnerable	Other	All countries
Adaptation	N/A	N/A	N/A
Cross-cutting	35%	0%	28%
Mitigation	5%	23%	21%
All projects	15%	23%	22%

Public sector	Vulnerable	Other	All countries
Adaptation	98%	100%	99%
Cross-cutting	100%	100%	100%
Mitigation	71%	90%	78%
All projects	89%	97%	93%

The portfolio-level review further shows that Board guidelines have broadly been met in terms of adaptation allocation for vulnerable countries, geographical balance and engagement with the private sector (see Table 3).

The portfolio target relating to the balance between mitigation and adaptation activities has been roughly met if it is assessed in terms of grant elements (respectively 39% and 58%), but not in terms of nominal resources (respectively 64% and 32%).

Table 3: Evaluation of achievement of portfolio targets

Initial allocation parameter	Initial portfolio targets	Evaluation
Balance between mitigation and adaptation	50/50 (over time)	This target can be evaluated in three different manners. See below for more details.
Adaptation allocation for vulnerable countries	Floor of fifty per cent of adaptation allocation	56% of the adaptation allocation went to vulnerable countries.
Geographic balance	Reasonable and fair allocation across a broad range of countries	The issue is not in the scope of our review but we did not see any systematic bias against countries or regions.
Engagement with the private sector	Maximize fund-wide engagement with the private sector, through significant allocation to the PSF	Private sector projects and programmes have received 53% of the GCF resources and 21% of their concessionality
Readiness and preparatory support	Sufficient support for readiness and preparatory activities	This target is not in the scope of our review and has not been evaluated

[4] The list of vulnerable countries used is the consolidated list of Least Developed Countries, Small Island Developing States and Low-Income Economies presented in Annex II to document GCF/B.10/06

Since mitigation normally benefits from lower concessionality, it would be useful for the Board to clarify whether a nominal or a grant-equivalent balance should be targeted.

At project level – Public sector

Our analysis shows that among public-sector projects, the projects who had at least one loan in their financing structure (extended either by the GCF or by another co-financier) had a higher concessionality leverage ratio. As illustrated in Figure 1, the mean value of the concessionality leverage ratio is equal to 1.54 for all public-sector projects while it reaches an average 3.81 for projects with at least one loan.

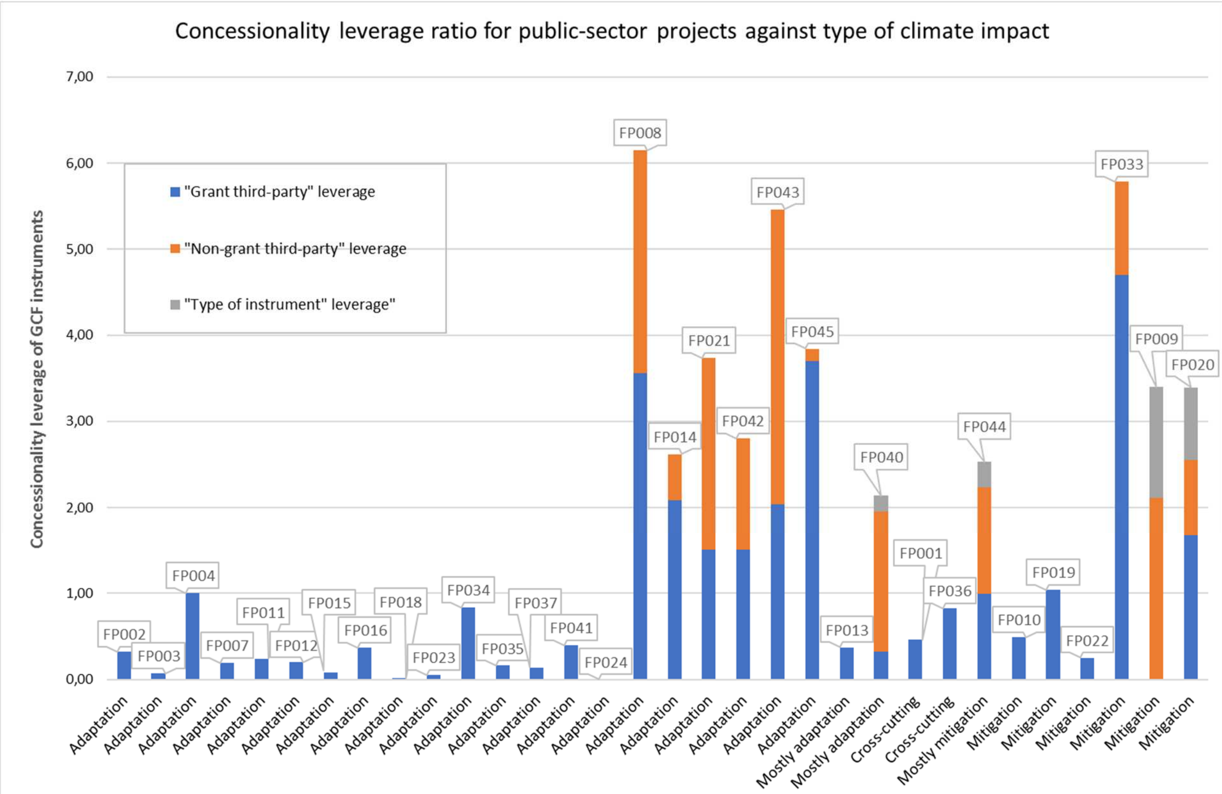

Figure 1: Concessionality leverage ratio for public-sector projects

This analysis also evidences a lack of connection between, on one side, concessionality, leverage and the choice of instrument, and on the other side, the six investment criteria defined by the Board in decision B.05/07. We notably identified that there is no significant correlation between the rating obtained with the ITAP assessment and the level of concessionality, or the share of the budget which was financed by the GCF.

There is a similar lack of connection between on one side concessionality and the choice of instrument, and on the other side, country income or debt-distress status, which is illustrated in Figure 2. The aggregate indicator used in the analysis shown in this figure is the sum of two components:

– A **country indicator** with rating from 0 to 5, for which the country category (vulnerable or not) accounts for 2 points and the country status (UMI, LMI, LI, LI/YL, LI/RL) accounts for 3 points.

– A **project indicator** with rating from 0 to 5, for which the project theme (adaptation, cross cutting or mitigation) accounts for 2 points, the type of financial participation (fund, project finance, revenue generating public-project or non-revenue generating public project) accounts for 2 points and the scale of the project (pilot, one-off or scale-up) for 1 point.

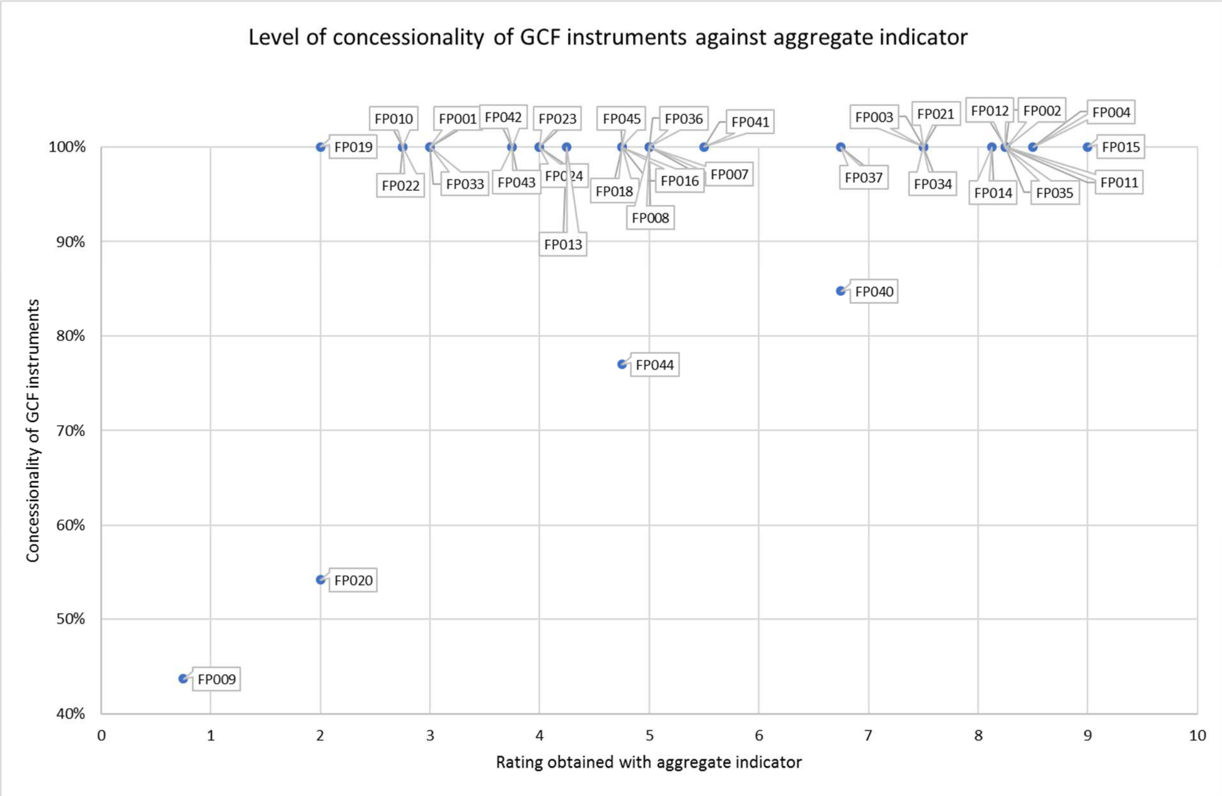

Figure 2: Relation between concessionality and aggregate indicator

Moreover, we cannot conclude about the relationship between approved terms and conditions for GCF funding, and efficiency in terms of expected results, because the magnitude of variations in any measure of funds efficiency first points to the need for methodological guidance in how key indicators are calculated (such as the carbon impact).

Project-level analyses thus point to potential issues regarding the compliance with Board-approved guidelines on the choice of instrument and on instrument terms and conditions: these are summarised in Table 4.

Table 4: Compliance with decision B.05/07

Principle	Compliance evaluation
Grant elements should be tailored to incremental cost or the risk premium required to make the investment viable, or to cover specific activities such as technical assistance	In many cases, there was no quantitative analysis for the selection of a specific level of concessionality. For revenue-generating activities, funding proposals included a financial model[5] and used economic arguments (such as tariffs) to justify the overall level of concessionality. But in many cases, there was no clear rationale behind the GCF level of concessionality requested.
Seeking the right level of concessionality, so as not to displace investments that would otherwise have occurred, including for private sector investment	
Levels of indebtedness capacity of the recipient should be taken into account so as not to encourage excessive indebtedness	Arguments related to the level of indebtedness of the recipients were seldom considered in funding proposals.
Avoid crowding out commercial financing	All public revenue-generating projects appear to have negative financial returns, and therefore would not sustain commercial financing.
Leveraging of other financing, including public and private financing, seeking to maximise leverage in the case of private financing	Concessional loans achieved a concessionality leverage ratio between 2.14 and 3.40, but few concessional loans were extended.
Promote long-term financial sustainability	The AEs presented clear exit strategies in their funding proposals.

At project level – Private sector

Since the GCF policy relies on a case-by-case approach for private-sector projects, and since the principles of concessionality and additionality are more critical for private projects, our assessment of the level of concessionality and the additionality of the GCF participation has been grounded on a more detailed and qualitative analysis of those projects.

In a nutshell, project-level analyses did not identify issues of non-compliance with Board-approved guidelines on the choice of instrument and on instrument terms and conditions.

However, we believe that a small number of programmatic private sector mitigation projects could be at risk of running askance of Board guidelines in the course of their implementation, depending on how term sheet commitments are interpreted, effectively applied, and monitored. This issue does not appear in projects that use GCF funds for de-risking, but only concerns line-of-credit projects where concessionality is used to lower RE or EE projects'

[5] Those models were not reviewed by the Consultant.

financing costs and where we see risks stemming from the lack of mechanisms to ensure that GCF concessionality is effectively transferred down. This is addressed in the recommendations below.

We also performed the same kind of quantitative analysis as for public-sector projects to determine whether general trends could be found in the current GCF portfolio of private-sector projects. Figure 3 shows that there is no clear relation between concessionality and the quality of the FPs as reviewed by the ITAP, although the average rating of private-sector FPs is superior to the average rating of public-sector FPs.

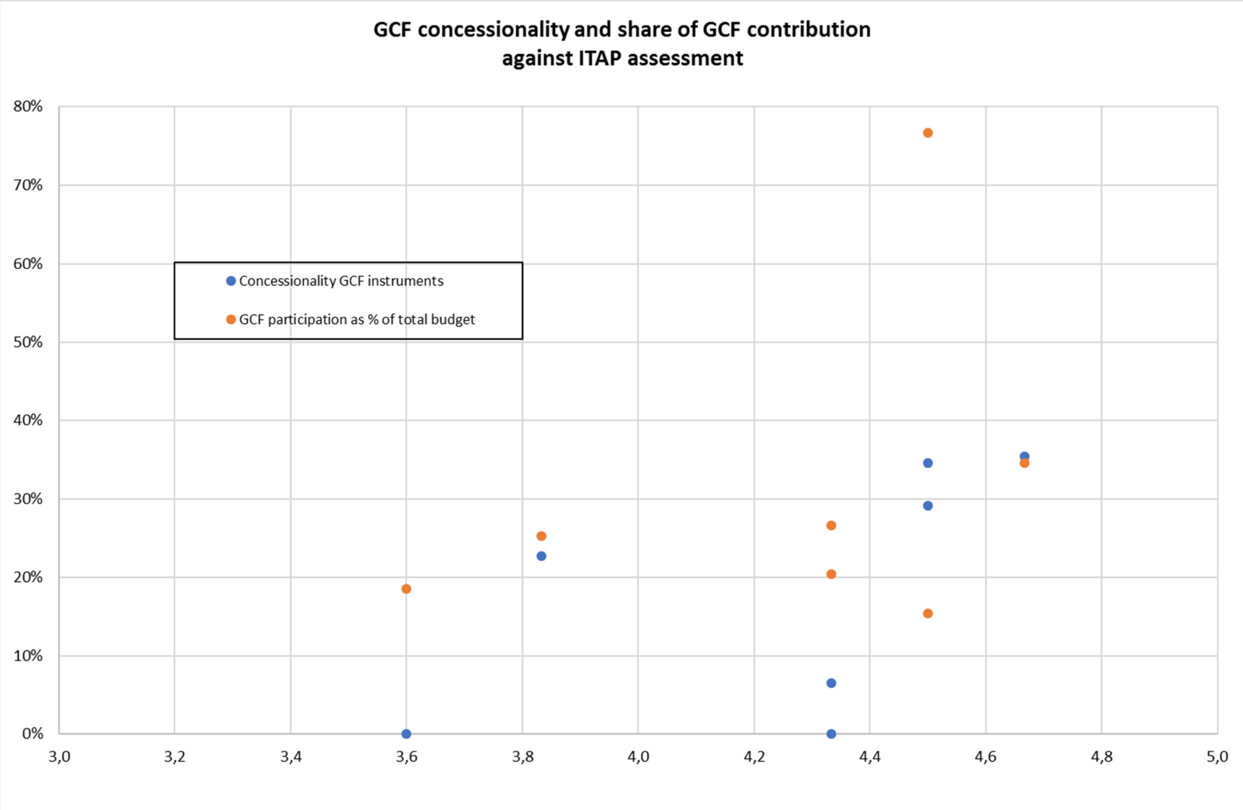

Figure 3: Relation between concessionality and ITAP assessment

Case studies

In terms of process, the main findings from our case studies are the following:

- AE's organization to work with the GCF: all but one of the interviewed AEs have a dedicated unit or at least dedicated staff that manages the use of climate funds, including the GCF, in AE operations.
- Relative timing of the GCF's and AE's approval processes: the time required from the idea to ask for GCF resources to GCF Board approval varied greatly between reviewed projects – from as short as six weeks to as long as two years. AEs that did not experience timing issues were those who took the opportunity of a GCF Request

for Proposals. This appears mostly due to GCF staff ramp-up issues, which several Project Managers (PMs) found resolved in more recent interactions with the Secretariat, and due to the time needed to negotiate AMAs before FAAs could be finalized.

– Secretariat and ITAP FP development and review processes: AEs who benefited from early extensive involvement of the Secretariat viewed that experience as rather positive, whereas the ITAP review process raised more criticism (lack of local knowledge for example). Even when the ITAP review was found to have gone well, no interviewed PM found that it added much value to the FP's design, and many noted that this review was coming too late in the GCF project cycle.

Conditions and covenants set by the Board

The latter observation should be linked to the impact of conditions precedent and covenants introduced by the Board in its decisions, which we were asked to review as a part of financial terms and conditions.

In most cases, Board-required conditions precedent or covenants did not create difficulties nor imposed additional costs on the AE, but a high number of projects that we selected for case studies had one specific condition or covenant that was found to be particularly onerous:

– The requirement on tariff-setting in FP043;

– The condition precedent on financing house connections in FP021;

– The change in instrument pricing (half of the loan amount switched to low-concessionality instead of high-concessionality) in FP044.

Further, only the latter of these three concerns the use of GCF funds for climate objectives; the first two are design issues for which due diligence falls within the normal preparation work of the AE.

Project managers did not expect such fundamental issues to be raised so late in the preparation process. Even where they understood the GCF's Board rationale, they felt that a better solution could have been found to address the GCF's concerns, had the issues been raised earlier.

We also conducted a qualitative review of Board-imposed conditions precedent (CPs) or covenants for projects which were not selected as case studies. A detailed assessment would require more numerous in-depth analysis and interviews with AEs, however we could broadly observe several types of CPs and covenants:

– *Standard fiduciary, environmental and social safeguards, or legal conditions*: they constitute most of Board conditions and do not diverge from normal conditions imposed by other DFIs.

– *"Readiness" provisions*: a number of conditions consisted in requiring the AE to complete or provide evidence of elements that would normally be present in a final

Board package. From a pure qualitative review, it seems that these "readiness" conditions are more frequent in the first half of FPs submitted to the GCF Board, which might indicate that they stemmed more from AE's learning curve.

– *"Design" provisions*: a small number of conditions deal with pure project design issues, like the two conditions described above for FP021 and FP043. Without judging the relevance of these requirements, we believe such critical design conditions should be raised earlier in the GCF review process

– *"Concessionality" provisions*: FP028 and FP030 (both private-sector) require commitment and demonstration that GCF-provided concessionality is "passed down"; FP014 (public-sector) requires that the "AE provides details on the rationale behind the project's use of grant funding by the GCF as opposed to other instruments (e.g. loans)". We note that "concessionality pass-down" provisions were not imposed on other private-sector FPs that may present the same risks, however term sheets in these FPs require the AE to apply a "minimum concessionality principle" which would give the GCF sufficient legal ground to ask for the kind of monitoring and reporting required in FP028 and FP030 Board conditions.

The first two types are by far the most frequent and are unproblematic, but the two last types, which concern a small number of FPs, strengthen the case for process improvements.

A.3. OTHER INSTITUTIONS' PRACTICES

Public sector

Several methods exist to determine the type of instruments extended and the level of pricing/concessionality of these instruments. On one hand, the detailed analysis conducted in Appendix C shows that most development financing institutions rely solely or at least partly on country-based criteria, such as the level of indebtedness or the GDP of the recipient countries, to determine the type of instruments they extend, and the terms and conditions of their instruments; several use a mixed approach, combining country and other criteria. On the other hand, financial institutions such as the GEF and the CTF adopt a barrier-based approach, which is project-specific.

As discussed further in the next section, we believe that these two approaches can be combined to design an approach taking into account both country-specific criteria, which are fundamental to select the level of concessionality of financial instruments, and project-specific criteria, which are necessary to fully comply with the GCF's specific mandate.

We also conducted a specific analysis of the level of concessionality of concessional loans extended by other institutions. Table 5 shows that the GCF, the GEF and the CTF loans are similar for the highest level of concessionality, but that the low level of concessionality of GCF loans is slightly lower than the IDA standard conditions for blend countries, and lower than the low level of concessionality of other Funds.

Table 5: Comparison of CTF, IDA and GCF concessional loans

Comparison with other institutions' instruments		
Institution	**Instrument**	**Level of concessionality**
GCF	High concessionality	67%
	Low concessionality	31%
GEF[6]	To LDCs and SIDs	68%
	To other countries	45%
CTF	Softer concessional	67%
	Harder concessional	43%
IDA	Small Economy[7]	59%
	Regular	51%
	Blend	39%

Private sector

We interviewed several private sector-focused Development Finance Institutions (DFIs) active in climate finance. They all determine financial terms and conditions and concessionality in a similar fashion: they price their financing on a commercial basis, with margin spreads usually based on internal ratings that include a country risk and a project risk; they provide concessional products by blending their own commercial financing with concessional resources from other institutions or trust funds; and they determine concessionality on a case-by-case basis, following an analysis of the barriers preventing private investment in the project.

The only notable differences come from the internal process followed to determine concessionality levels. In most if not all DFIs, a separate unit manages the relationship with concessional funds providers and participates in the discussion with the project team to contribute their understanding of each concessional funds provider's specificities. One DFI however – IFC – has instituted since 2012 an independent "Blended Finance Committee" to review projects that request the use concessional instruments. This committee ensures that concessional resources are used consistently and, through adequate determination of the minimum amount of concessionality required, that concessional resources are used efficiently.

[6] As explained in more detail in the report, it has been assumed for this calculation that the GEF does not charge service and commitment fees. For the other institutions, the level of concessionality has been calculated with these fees.
[7] For most distressed countries (IMF "red light"), IDA provides only grants. The nominal amount of IDA funding is then reduced by 20% as compared to what it would have been if the country could access loans.

A.4. Recommendations

General recommendations

One of the findings of our review is that the GCF procedures on the terms and conditions of its financial instruments should more clearly differentiate between a policy approved by the Board and more precise guidelines prepared by the Secretariat, in order to enhance the readability of these policies and guidelines for accredited entities.

Moreover, minimum concessionality is an overarching principle we found in all DFIs and Trust Funds' policies reviewed during this study but there needs to be a **clear methodology to assess and measure the level of concessionality**. Since policies should be formulated in a manner that seeks to encompass all types of instrument, we recommend that a simplified approach like the one developed in this report be applied in order to calculate the level of concessionality, which in turn would be used to assess compliance of a given GCF contribution to GCF policies (in particular for terms and conditions for public-sector projects).

Adopting a uniform approach to measuring concessionality would also allow for **better comparability between private and public projects**. For mitigation in particular, there should be no reason for the GCF to provide different concessionality to the same project whether it is implemented through a public arrangement or through a private one.

The GCF should also **provide more guidance to AEs to enhance process predictability** for all types of project. For instance, the impact indicators are calculated in very different manners depending on the accredited entity submitting the funding proposal. GCF's key indicators (carbon impact, number of beneficiaries) could play a role in the determination of the level of concessionality if a clear calculation methodology were given to AEs at the concept stage (see Appendix B for more detail). We reviewed possible methodologies and indicated more detailed recommendations on this issue in Appendix B.

The **proposal review process**, including the timing of ITAP's intervention, would also gain from being adjusted so that basic design issues can be raised and resolved early, instead of translating into prohibitive approval-stage conditions precedent or covenants. Other recommendations on the ITAP assessment can be found in Appendix D.

Recommendations specific to public-sector projects

GCF resources would provide more overall leverage to public-sector projects if loan instruments were more frequently used for these projects, which would also be more in line with the GCF Board guiding principle on leveraging other financing (Annex III to decision B.05/07).

Furthermore, we believe that **the level of concessionality of financial instruments should be the key parameter of a revised policy on financial terms and conditions for public-sector projects**. Because for most public-sector projects, there is no way to calculate a "minimum required concessionality", and in line other DFIs' practice, we recommend defining **a limited number of levels of concessionality for the GCF participation in a project or programme**. For instance, the policy could provide for three levels of concessionality (33%, 66% and 100%), and within a given level of concessionality, allow the AE to tailor the type of financial instrument and its detailed terms and conditions to the specific needs of the project and to the co-financing instruments.

To enable a more frequent use of loan instruments (and thus make ales frequent use of the 100% concessionality-level for GCF funds), **a set of criteria should be defined and communicated to AEs to choose the level of concessionality granted to a project or programme proposal**. The objective would not be to adopt a "one size fits all" approach, but to share an analysis framework with accredited entities, so that they know how the specific issue of concessionality will be evaluated by the GCF. More specifically, we think that the criteria that should be considered are the following:

- Country-related criteria:
    - For most MDBs, **country macro characteristics** (GDP, poverty and indebtedness) are the key determinant of concessionality and instrument choice. MDBs, like the GCF, target a wider and more diverse set of project types and sizes than other existing climate funds. The latest Development Aid Committee (DAC) guidelines of the OECD also require Official Development Assistance (ODA) providers to provide higher concessionality to lower-income, more debt-stressed countries.
    - The **vulnerability** of the recipient, provided an exact list of vulnerable countries is agreed upon.
- Project-related criteria:
    - The **project theme** since adaptation activities should in general attract more concessionality than mitigation activity.
    - **Key indicators** could also be used in the determination of concessionality (GHG emission reduction for instance).
    - The **level of concessionality of cofinanciers resources** could also be one of the main parameters in the determination of the GCF concessionality. We noticed during our review that the level of concessionality of cofinanciers resources were not easily available, and was not discussed or justified in the funding proposals. The level of concessionality necessary for the project to be viable, and the exact repartition of this concessionality between the GCF and the cofinanciers should be discussed from the concept stage.

We recommend that the policy indicate the criteria to be considered and their general definitions, and that the guidelines give more specific guidance on how these criteria are used to determine the level of concessionality.

The policy could further indicate precise floors, caps or ranges of values which would help accredited entities to prepare projects in line with GCF requirements. **In particular, we recommend setting a cap on the share of the total project expenditure financed by the GCF**[8] to encourage co-financing.

This cap could be higher for adaptation activities than for mitigation activities, and could be defined as follows:

- For all types of projects, the share of the project budget financed by the GCF should never exceed 80%;
- For revenue-generating activities, the share of the project budget financed by the GCF should never exceed 50%.

Recommendations specific to private-sector projects

The analysis of private-sector projects has been conducted with a differentiation between pilot, scale-up and one-off projects:

- A pilot project aims to test a new approach (deployment of a new technology, or of an existing technology in a risky market).
- A scale-up project builds on a pilot project or programme and aims at scaling up its impact in the same environment.
- A one-off project may be of large scale but does not rely on a previous pilot nor is planned to be replicated or expanded.

In line with all DFIs engaging with the private sector, we recommend keeping a case-by-case approach for determining financial terms and conditions of private-sector projects. Nevertheless, GCF guidance could **differentiate the level of scrutiny required on concessionality between pilots, scale-up and one-off funding proposals**. Pilots, especially for very innovative approaches or in very risky markets, may not need a very stringent review of concessionality. Scale-up FPs offer the opportunity to size the required concessionality precisely based on the results of the pilot and should demonstrate they have done so.

For large one-off proposals, especially of a programmatic nature, we recommend **phasing to enable the same virtuous cycle of testing the approach, and adjusting what is really needed based on the pilot's results**. However, to enable such an approach without increasing transaction costs for both the AE and the GCF (low transaction costs being a virtue of programmatic approaches), **the GCF should define a simplified approval mechanism for scaling up a funding proposal previously approved by the GCF**.

[8] The combination of both sets of rules is important since the same grant-element can be extended to a project by lowering concessionality and increasing the face value of the instrument.

The policy on terms and conditions should also seek to **transfer concessionality equitably and efficiently in country-wide RE/EE programmes** that lower the cost of EE or RE investments in a given country and usually come in support of a national programme**.** The first risk to efficiently using GCF concessionality in such a programme is that there can be a trade-off between, on one hand, providing "minimum concessionality", and on the other hand, not distorting the market: adapting the level of concessionality to each project also means that developers may not be incentivised to focus on the most cost-efficient projects.

Because of the efficiency and sustainability risks of "flattening out" market signals, **we recommend, while having a "minimum concessionality" approach to the global country RE/EE programme, keeping a "flat concessionality" approach to sub-projects within the programme.**

Another risk in these programmes is that part of GCF concessionality could get absorbed in AE commercial pricing. An effective solution to this risk would be to **provide GCF concessionality to several AEs in each country** to ensure the concessionality is fully transferred down (either to attract investors or to lower tariffs).

Finally, the IFC has been at the forefront of setting up an independent "Concessionality Committee" that functions very much like a Credit Committee. This approach seems interesting and a donor working group exists on the topic. The GCF could **incentivize adopting such internal concessionality review mechanisms** either through the GCF approval process, in the AMA or through its Terms and Conditions.

B. INTRODUCTION

B.1. INDEPENDENCE OF THE REVIEW

Nodalis conducted the present review in full independence and free of any conflict of interest.[9]

In the course of our review, we held several remote conferences with the Green Climate Fund (GCF) Secretariat staff, and following the issuance of an interim report, we conducted two days of meetings with the Secretariat at the GCF headquarters in Songdo on Aug. 10th and 11th. The draft final report will be discussed with the GCF Board's Investment Committee on Aug. 30th.

Nodalis also held meetings with staff from a range of development finance institutions, listed in Appendix A. The purpose of these meetings was to collect and clarify available information, as well as to better understand possible concerns and questions of the GCF.

The conclusions and recommendations expressed herein in response to our terms of reference were formed based on the information collected from the above parties and on our professional experience and expertise. These conclusions and recommendations are solely Nodalis's and do not represent views of the GCF, the GCF Secretariat, the GCF Board, nor of any of the staff interviewed or of their institutions.

B.2. CONTEXT

The GCF intervenes exclusively through Accredited Entities (AEs) to channel its resources to projects and programmes. There are currently 54 such entities and this number will likely keep growing. The AEs must meet standards imposed by the GCF but have widely varying characteristics: they can be private or public, non-governmental, sub-national, national, regional or international. They are typically in charge of the development of funding proposals and the management and monitoring of projects and programmes, for which they usually provide co-funding.

GCF Funding may take multiple forms: grants, loans, concessional loans, guarantees, equity.

The GCF Board has adopted policies regarding the terms and conditions of the financial instruments extended by the GCF, depending on the nature of the instrument and the type of project (public or private-sector). Those policies are summarised in section C.1, along with documents prepared by the Secretariat but not approved by the Board.

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[9] A Nodalis team indirectly contributed to a Funding Proposal included in the present review – the EBRD-Saïss Water Conservation Project, FP043 – under a sub-contract to an EBRD contractor that performed a due diligence review of the project. Nodalis did not contribute directly to the funding proposal, however the funding proposal includes some information from Nodalis's due diligence report. The contract with EBRD was completed several months before the present review. This review's team was also kept separate from the Saïss due diligence team which did not contribute to the present report.

The objective of the review, as set in its terms of reference, is:

- To evaluate the compliance with the GCF's policies of the terms and conditions of the financial instruments extended in the framework of projects and programmes approved by the Board;

- To propose for the Board's consideration additions or adjustments to the adopted financial terms and conditions which should be consistent with GCF's policies;

A benchmark of the practices of other organizations with similar policy mandates complements the review of projects and programmes. Comparing existing GCF policies to other institutions' provides insights for the adjustments proposed at the end of this report.

Finally, we must take note that the GCF is a young and growing institution with a critical global mandate. It thus operates in a constantly shifting context. Reviewing compliance is only useful to inform recommendations, since the conditions under which past decisions were taken have often already changed. For the same reason, some recommended adjustments may well become quickly moot.

B.3. METHODOLOGY

B.3.1. Overall approach

Our terms of reference required us to "assess whether existing Board guidance has been correctly applied, including that contained in decisions B.09/04, B.05/07 and B.07/06, and make recommendations, if any, to enhance the application of this guidance. In particular, the assessment should take into account the need to tailor the level of concessionality to the overall impact of investment, consistent with decision B.05/07".

GCF key principles on concessionality and additionality are to tailor grant elements to incremental costs or to the risk premium required to make the investment viable, and to seek the right level of concessionality, so as not to displace investments that would otherwise have occurred.

However, there is no way to determine with certainty whether the two principles above are met on any given project, because the exact counterfactual does not exist[10]. For each Funding Proposal (FP), the AE, the Secretariat, the Independent Technical Advisory Panel (ITAP), advisors to GCF Board members, all performed some form of analysis to check whether these principles were met.

Absent the possibility of simple, clear-cut determination, a full assessment, on top of the above review cycles, would require a thorough review of each project, including interviews with all parties involved in the decision process, i.e. AEs, the Secretariat, the ITAP, Board advisers, and in some cases beneficiaries. This was evidently not possible within the scope and timeline of the

[10] See Paddy Carter, Overseas Development Institute / OECD, 2017, "Wanted: mechanism for additionality", https://oecd-development-matters.org/2017/05/10/wanted-mechanism-for-additionality/. A similar logic applies to concessionality.

present review, and in any case would be unnecessarily onerous[11].

Instead, our approach combines:

- Basic compliance review: the objective of this part of the review is to assess the compliance of approved projects and programmes to the principles and criteria outlined in the GCF policies from an analysis of basic data on all projects;

- Pattern analysis: this aims at identifying meaningful patterns in the data on all projects and programmes approved by the Board, which may evidence issues not visible at the individual project or programme level;

- Case studies: the case studies consist of more detailed reviews for a sample of project through interviews that provide for an understanding of the underlying context of each selected project;

- Process review: through case studies and interviews with AE and GCF staff, the process review aims at identifying whether the processes implemented to decide on terms and conditions (T&Cs) were adequate to lead to compliance with Board policy.

Through these tools, the review provides for project- and portfolio-level analyses with the purpose of formulating recommendations to the Board and the Secretariat both in terms of how to better enforce Board guidance, and how to adjust Board guidance, towards better achieving GCF's core objectives.

[11] Methodologically, the present review is thus neither an audit (there is no norm against which to measure) nor a full evaluation (for timeline reasons it could not follow a strict evaluation methodology).

B.3.2. Review phases

Overall approach

The review follows the following phases:

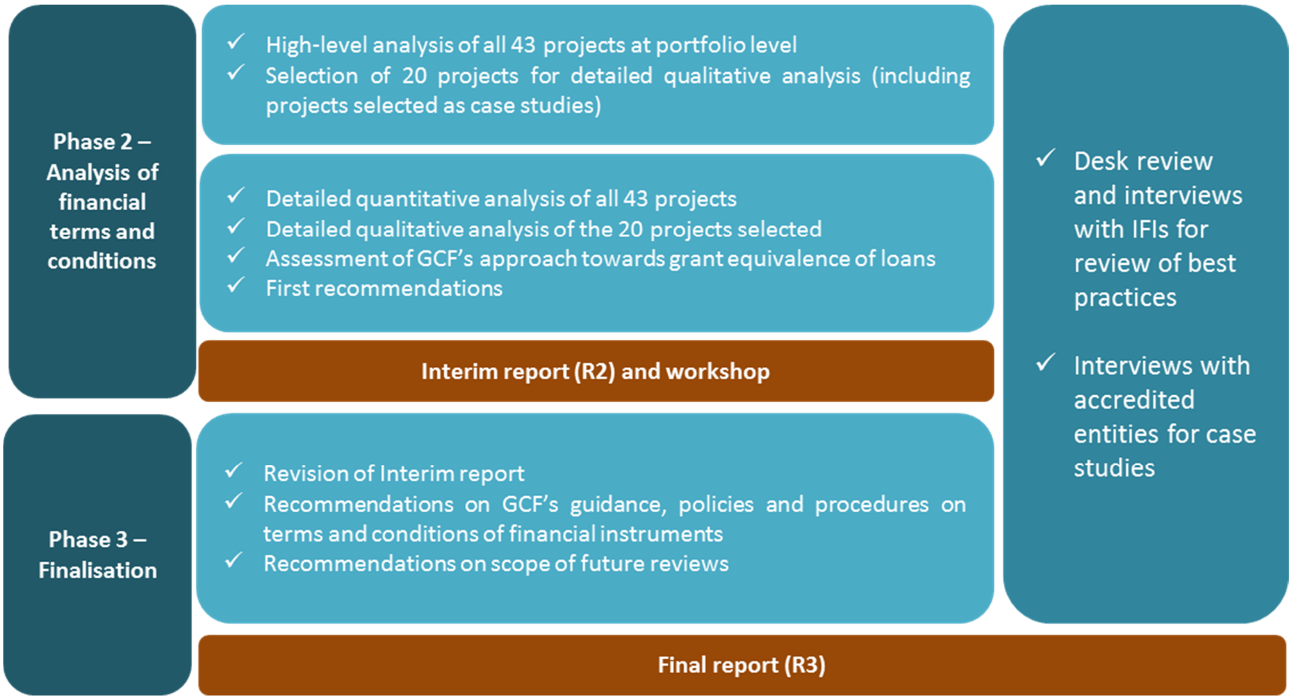


Figure 4: Review phasing

High-level analysis

We conducted a high-level quantitative analysis of all projects and programmes approved by the Board before the 17th meeting. A specific analysis framework presented in the inception report was designed for this first analysis on a purely quantitative basis.

This high-level analysis has considered mainly quantitative data or qualitative criteria for which a simple rating scale can be used: it has for instance drawn on the ITAP evaluation for each investment criterion defined in the GCF investment framework (which has a rating scale with five values: low, low/medium, medium, medium/high or high).

We mainly use the results of this high-level analysis to give a general overview of the GCF portfolio, and assess its compliance with existing GCF policies at the portfolio level.

Detailed analysis

We selected 20 projects and programmes which are particularly relevant and diverse, in terms of project type, nature of recipient, and type of financial instruments to conduct a more detailed, qualitative analysis related to GCF core investment criteria. This sample includes all projects that had been selected for case studies (see next section).

We also conducted a detailed qualitative analysis of the specific concessionality and additionality rationales of all private sector projects approved by the Board.

B.3.3. Case studies

We drilled down on 8 case studies, going beyond a desk review of documentation. We selected these 8 FPs to cover a variety of project types, thematic areas, access modalities and financial instruments. We conducted AE staff interviews for all but one project (FP039), and conducted Secretariat staff interviews for 5 projects (identified in bold in Table 6).

Table 6: Final list of case studies

AE information	Project Information				
Accredited entity	**Project Reference**	**Project description**	**National Designated Authority**	**Country**	**Thematic area**
UNDP	FP033	Accelerating the Transformational Shift to a Low-Carbon Economy	Ministry of Finance and Economic Development	Republic of Mauritius	Mitigation
EBRD	FP043	The Saïss water conservation project	Ministry of Energy, Mining, Water and Environment	Morocco	Adaptation
World Bank Group	**FP044**	**Tina river hydropower development project**	**Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM)**	**Solomon Islands**	**Cross-cutting**
AFD	**FP021**	**Senegal Integrated Urban Flood Management Project**	**Ministry of Environment and Sustainable Development**	**Senegal**	**Adaptation**
EIB	**FP038**	**GEEREF NeXt (EIB's green investment fund)**	**Multiple**	**Multiple**	**Mitigation**
DBSA	**FP029**	**SCF Capital Solutions**	**Department of Environmental Affairs**	**South Africa**	**Mitigation**
EBRD	**FP039**	**Egypt renewable energy financing framework**	**Ministry of Environment**	**Egypt**	**Mitigation**
CAF	FP017	Climate Action Solar Energy Development Programme in the Tarapacá Region	Ministerio de Hacienda	Chile	Mitigation

The objectives of these case studies were:

- to understand the process that led to the selection of a particular financial instrument, and to the specific terms and conditions presented in the funding proposal,

- to learn about the impact of the conditions precedent stated in the Board decision and, when applicable, in the Funding Activity Agreement (FAA), on the implementation of the project.

The contact details and dates of these interviews are summarised in Appendix A.

Review of best practices

We conducted a desk review of the documentation available on the websites of the considered institutions. Since not all information is publicly available, we also conducted interviews with staff from these institutions (also listed in Appendix A).

The main objective of these interviews was to gather insights on those institutions' policies regarding the principles of concessionality and additionality, which are particularly important for this review.

B.3.4. Data used

The documents made available to the Consultant for this assignment were the following:

- **Funding proposals** submitted by accredited agencies for all projects and programmes approved by the Board, without their appendices except the **terms sheets** which were provided for all but four projects (FO001, FP002, FP004 and FP007);

- **GCF Secretariat's reviews** included in the following documents presented to the Board: GCF/B.11/04/Add.11, GCF/B.13/16/Add.13, GCF/B.14/07/Add.16, GCF/B.15/13/Add.17, GCF/B.16/07/Add.10, GCF/B.16/07/Add.11, GCF/B.16/07/Add.14;

- **Independent Technical Advisory Panel's assessments** included in the following documents: GCF/B.13/16/Add.12/Rev.01, GCF/B.14/07/Add.15, GCF/B.15/13/Add.16/Rev.01, GCF/B.16/07/Add.13;

- **Accredited entities' responses to ITAP's assessments** included in the following documents: GCF/B.14/07/Add.18, GCF/B.15/13/Add.19/Rev.01, GCF/B.16/07/Add.16;

- The **Board decisions** since its 11th meeting;

- **Funding activities agreements** which had been concluded at the outset of the review: FP001, FP002, FP005, FP007, FP010, FP013, FP015, FP016, FP018, FP019, FP022, FP023, FP024, FP034, and FP037.

C. REVIEW OF FINANCIAL TERMS & CONDITIONS

C.1. BOARD DECISIONS RELATING TO FINANCIAL TERMS AND CONDITIONS

C.1.1. Summary of Board decisions

The principles and factors that are used to determine the terms and conditions of financial instruments used by the GCF have been defined in **decision B.05/07 (Annex III)**. This decision defines the five following factors:

i. *The average concessionality or grant element of the financial inputs to the Fund and the average concessionality or grant element of financial instruments of the Fund;*

ii. *The grant element of concessional finance will be tailored to provide the appropriate incentive to facilitate the implementation of mitigation and adaptation activities;*

iii. *Concessional forms of finance will be designed to minimize market distortions and potential disincentives to private investment;*

iv. *The expertise and capacity of financial intermediaries and implementing entities; and*

v. *The risk sharing between public and private investment, when relevant.*

The decision also defines a set of criteria related to the contribution of the project to the results areas of the GCF, its viability and the efficient and catalytic use of resources (**Annex IV** to the decision).

When the Board approved this decision, it also requested the Secretariat to develop guidelines for terms and conditions of grants and concessional loans. This was presented in the 8th and 9th meetings of the Board, and approved in **decision B.09/04**. Table 1 summarises the decision taken by the Board regarding financial terms and conditions of the instruments used by the Fund.

Table 7: Guidelines on financial terms and conditions as stated in decision B.09/04

Type of project / **Instruments**	**Public sector**	**Private sector**
Grants	No repayment contingency Terms and conditions consistent with Annex II to decision B.09/04	Possibility of repayment contingency Terms and conditions determined on a case-by-case basis
Concessional loans	Terms and conditions consistent with Annex II to decision B.09/04	Terms and conditions determined on a case-by-case basis, in coherence with

	Level of concessionality established following principles and factors of decision B.05/07	Annex III to decision B.05/17 and Section III in Annex XIV to decision B.07/06
Other instruments	Terms and conditions determined on a case-by-case basis	

To summarise, GCF's policies regarding terms and conditions of financial instruments as stated in Board decisions mainly rely on qualitative criteria and do not provide for fixed conditions, except for concessional loans extended to the public sector for which the following conditions were defined:

Table 8: Financial terms and conditions for concessional loans (public sector)

Level of concessionality	**High**	**Low**
Currency	Major convertible currency	Major convertible currency
Maturity (years)	40	20
Grace period (years)	10	5
Annual principal repayment up to year 20	2%	6,70%
Annual principal repayment after year 20	4%	N/A
Interest	0,00%	0,75%
Service fee (per annum)	0,25%	0,50%
Commitment fees (per annum)	Up to 0,50%	Up to 0,75%

Finally, the Board decided at its 17th meeting to give more flexibility for the use of concessional loans (pending the results of the present review) and requested the Secretariat to "*apply the financial terms and conditions set out in annex II to decision B.09/04 (annex II to document GCF/B.09/23) in a fit-for-purpose manner, provided that such terms and conditions do not exceed the upper limits set out therein*" (decision B.17/08).

C.1.2. Other documents submitted to the Board

The Secretariat prepared a document on the financial terms and conditions for the 9th Board meeting (**GCF/B.09/08**). This document provides more insight regarding the practices of other financial institutions and the rationale for the financial T&C approved by the Board.

Moreover, a document titled "*Brief guideline on the application of the Case-by-case provisions in the financial terms and conditions* of the *Fund's Instruments"* was presented in the 10th meeting (**GCF/B.10/Inf.10**). It provided a review of best practices on two main issues (financial terms and level of concessionality) and concluded that the case-by-case approach had to be undertaken in close cooperation with accredited entities and that it could not rely on a mathematical model, especially for the level of concessionality. There was however no formal Board decision on this guideline.

Finally, the Secretariat prepared document **GCF/B.10/06** for the same Board meeting, which provided an analysis of best practices for the determination of the level of concessionality for public-sector projects in other institutions. This document also proposed various options to determine the level of concessionality of the GCF instruments, but the Board did not take a decision as to what option should be adopted by the Secretariat.

C.1.3. Facial review of Board decisions

This section provides for preliminary observations on the above Board decisions, taken at face value. As will be the case in the rest of this report, we distinguish between the policies on terms and conditions for public-sector, and for private-sector projects or programmes.

Public-sector projects

The main observation for public-sector projects is that Board decisions do not provide for any guidance to AEs preparing FPs, neither on how to choose between grants and concessional loans, nor on how to choose between the two types of concessional loans.

Regarding the Board-defined terms and conditions for concessional loans, we note that:

- For highly concessional loans, commitment fees can be higher than the sum of the interest and service rates, which runs contrary to normal practice and which we find hard to justify. While commitment fees provide for a useful incentive to disburse timely, and account for the opportunity cost of committing GCF balance sheet resources, they should remain lower than the interest and service rate.
- Having only two sets of defined concessional loan financial terms and conditions for the public sector (until the recent B.17/08 decision) can be an issue to tailor financial conditions to the specific context of each project, including, but not only, its need for concessionality.

– In decision B.17/08, the Board allowed for more flexibility to determine the terms and conditions of concessional loans, but how to assess whether the terms and conditions of a given instrument "*do not exceed the upper limits*" of the policy remains unclear. For instance, all other parameters being equal, does a loan with a 35-year tenor but without commitment and service fees exceed the limits of the highly-concessional loan? This question cannot be answered without a methodology to measure concessionality (see section C.2.2).

Private-sector projects

The GCF Board has decided to adopt a case-by-case approach for the determination of the financial terms and conditions for private-sector projects, which is in line with most other DFIs' practice, as discussed in more detail in section D.2.

We note however that the key elements of the approach the accredited entities must adopt for determining terms and conditions are the general principles of minimum concessionality and additionality (Annex III to decision B.05/17), and the list of criteria of the investment framework (Section III in Annex XIV to decision B.07/06). This means that the criteria used for general project eligibility and for the determination of terms and conditions are the same.

C.2. GENERAL ASSUMPTIONS AND DEFINITIONS

C.2.1. Definitions

To perform an analysis of the GCF portfolio in terms of financial T&Cs, and more specifically in terms of the level of concessionality of the instruments extended to projects and programmes approved by the Board, we must first provide for quantitative definitions of a few concepts:

– The **grant element** of a loan is defined by the World Bank as "the difference between the loan's nominal value (face value) and the sum of the discounted future debt-service payments to be made by the borrower (present value)"[12]. The International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development (OECD) use the same definition.

– The **level of concessionality** for a given instrument is defined in this report as the ratio of its grant element to its face value.

The above definition of a grant element raises two issues. First, the choice of discount rate greatly impacts the results since this definition implicitly compares the financial instrument considered with a counterfactual financial instrument which would have a financial return corresponding to the discount rate. However, this methodology does not necessarily capture all the parameters of a financial instrument (maturity, grace period, etc.)[13].

[12] IDA website: http://ida.worldbank.org/financing/grant-element-calculations.

[13] In particular, "non-concessional" funding costs, which the standard discount rate represents in theory, vary for market agents according to both end and average maturity.

Secondly, this definition is directly applicable, and mainly used for loans; yet it would also be useful to quantify concessionality, i.e. calculate a grant element, for other types of instruments (equity and guarantees for instance), especially for private-sector projects. The next section delves into those issues and concludes with the methodology selected for this review.

C.2.2. Calculation of the grant element

Calculation methodologies

To create a grant element calculator, two distinct general approaches are possible:

– The first one is described in the World Bank definition of the grant element, presented in section C.2.1. It consists in the difference between the discounted cash flows generated by the financial instrument and the nominal value of this instrument.

– The other one would be to calculate the net present value of the difference between two cash flows: the cash flows of the financial instrument considered, and the cash flows generated by a counterfactual financial instrument, which would represent the instrument available on the market. This difference would then be discounted to obtain the grant element.

The second approach is more difficult to implement since it requires identifying a counterfactual non-concessional financial instrument (which may not exist) and set all its parameters, whereas in the first approach, the only parameter to determine is the discount rate.

However, the most critical parameter to determine in both methodologies is the discount rate (since in the second approach, this discount rate could be equal to the financial rate of return of the counterfactual instrument).

Two possibilities further exist to set the value of the discount rate:

– Either a flat rate for all types of financial instruments, in all sectors and countries,

– Or discount rate values adjusted to reflect the fact that the concessionality of a financial instrument depends on the context in which it is used.

Table 9: Grant-element calculation methodologies

Calculation methodology **Discount rate**	**With counterfactual instrument**	**Without counterfactual instrument**
Flat discount rate		WB approach
Variable discount rate	Market-based approach (financial return of the counterfactual instrument)	ODA approach (based on country category) Market-based approach (based on differentiated market pricing of general categories such as instrument, tenor, country risk…)

For example, the current discount rate used by the World Bank and the IMF is a flat 5% rate. However, the latest recommendation of the Development Assistance Committee[14] of the OECD adopted a differentiated discount rate for LMICs, LDCs and LICs (increase of 1% above the 5% base for UMICs, 2% for LMICs and 4% for LDCs and other LICs).

Calculation methodology selected for the review

We think that the key points to consider for the determination of the calculation methodology are the following:

- **It must be adapted to its purpose**: a grant-element calculator can be used for a general portfolio analysis, as is the case in this review, or to inform the decision-making process on a specific project. Although both purposes can be useful for the GCF, we see these two purposes as contradictory since comparing and analysing the levels of concessionality of different types of instruments if those levels are calculated with different methodologies could lead to misinterpretations of the results obtained.

- **It must be adapted to its users**: we find crucial to design a transparent and user-friendly calculation method, so that all accredited entities share the same understanding of how the GCF approaches concessionality.

- **It must be consistent with data quality**: drawing on this last point, the other shortcoming of a sophisticated methodology is that it can give the illusion that the results obtained are precise, regardless of data quality. The data available in many emerging markets is most often, if existent at all, very inconsistent and unreliable. The sophistication of the calculator must be coherent with the quality and relevance of the available data.

- **It must not reverse the GCF's mandates**: the GCF is not a financial investor seeking to maximise its return. Its primary objective is to tackle the causes and effects of climate change in beneficiary countries. Using concessional funds as efficiently as possible to complement markets is only a secondary requirement to this primary objective. Using sophisticated market comparators could lead to restricting the use of instruments necessary to correct market failures, such as equity and guarantees, as concessionality, and thus discriminate against these riskier products. This could be highly counterproductive: acknowledging that many barriers come from market failures implies that the GCF, to address such barriers, is in fact taking less risk than the non-loan instrument suggests, and therefore that the market comparator is biased against GCF primary objectives.

Since this review aims at comparing all financial instruments approved by the GCF Board, we have decided to adopt the World Bank's approach and have used a flat discount rate of 5%. This approach is consistent with previous calculations undertaken by the GCF. For instance, a flat value of 2.65% was indicated in decision B.08/13 (Annexes XIX and XXI), and document GCF/B.10/06 stated the grant element was "estimated using the joint International Monetary Fund – World Bank parameters", which was already set at 5% in 2015.

[14] http://www.oecd.org/dac/OECD%20DAC%20HLM%20Communique.pdf

Furthermore, commitment fees and service fees were not considered in the calculation of grant elements since in most cases, this information was only available for GCF contributions, and not for the participation of other cofinanciers.

In line with the description of the different methodologies previously described, this approach has some limitations:

- The choice of a methodology without counterfactual instruments means that parameters such as a long maturity or the grace period are not fully reflected in the calculation of the grant element. For instance, a loan with a 40-year tenor and a 4% interest rate and a 3-year grace period has a concessionality of 12%, while the same loan with a 20-year tenor has a concessionality of 8%.

- This approach is relevant for loans, but does not fully represent the level of concessionality of other instruments, like equity and guarantees. For instance, in the "GEEREF NeXt" fund, the IRR for the class of shares corresponding to the GCF contribution in equity is expected to be 1%, which is substantially lower than the return to other investors. This is not fully reflected in the 32% level of concessionality calculated with our approach. However, given the GCF's mandate, we find this preferable to creating a negative bias against de-risking instruments.

- Because commitment fees and service fees are not considered, the grant elements indicated in the following sections of this report are slightly overestimated. For instance, the high level of concessionality for loans corresponds to a 72% grant element (67% if fees were considered), and the low level corresponds to a 39% grant element (31% if fees were considered).

C.2.3. Other assumptions

Three additional assumptions were used in this report:

- The list of vulnerable countries used is the consolidated list of Least Developed Countries, Small Island Developing States and Low-Income Economies presented in Annex II to document GCF/B.10/06.

- Cross-cutting projects, which are very numerous, were assigned to three different categories based on a case-by-case qualitative assessment of the exact nature of activities: "Mostly adaptation", "Cross-cutting" and "mostly mitigation". In the rest of this report, projects classified as "Mostly adaptation" or "Mostly mitigation" are respectively listed in the "Adaptation category" and "Mitigation category".

- All results are presented in US Dollars, and the exchange rate used for conversions is EUR 1 = USD 1.19 USD.

C.3. HIGH-LEVEL ANALYSIS

C.3.1. Portfolio analysis

Private-sector projects

The GCF portfolio consists of 11 private-sector projects or programmes, which mostly relate to mitigation activities (which is consistent with the fact that mitigation activities tend to be revenue-generating).

Table 10: Overview of GCF portfolio – Private sector projects

			Project theme				
	PRIVATE-SECTOR PROJECTS	TOTAL	Adaptation	Mostly adaptation	Cross-cutting	Mostly mitigation	Mitigation
Vulnerable	Number of projects	3	0	0	1	1	1
	As a share of total projects	*27%*	*0%*	*0%*	*33%*	*33%*	*33%*
	Amount of GCF contributions	$158 500 000	*$0*	*$0*	*$53 500 000*	*$25 000 000*	*$80 000 000*
	As a share of total GCF contributions	*13%*	*0%*	*0%*	*34%*	*16%*	*50%*
Other	Number of projects	8	0	0	1	2	5
	As a share of total projects	*73%*	*0%*	*0%*	*13%*	*25%*	*63%*
	Amount of GCF contributions	$1 033 922 000	*$0*	*$0*	*$12 222 000*	*$400 000 000*	*$621 700 000*
	As a share of total GCF contributions	*87%*	*0%*	*0%*	*1%*	*39%*	*60%*
TOTAL	Number of projects	11	0	0	2	3	6
	Amount of GCF contributions	$1 192 422 000	*$0*	*$0*	*$65 722 000*	*$425 000 000*	*$701 700 000*
			0%	*0%*	*6%*	*36%*	*59%*

			Project theme				
	PRIVATE-SECTOR PROJECTS	TOTAL	Adaptation	Mostly adaptation	Cross-cutting	Mostly mitigation	Mitigation
Vulnerable	Number of projects	3	0	0	1	1	1
	As a share of total projects	*27%*	*0%*	*0%*	*33%*	*33%*	*33%*
	Grant element of GCF contribution	$23 500 000	*$0*	*$0*	*$18 500 000*	*$5 000 000*	*$0*
	As a share of total GCF contributions	*9%*	*0%*	*0%*	*79%*	*21%*	*0%*
Other	Number of projects	8	0	0	1	2	5
	As a share of total projects	*73%*	*0%*	*0%*	*13%*	*25%*	*63%*
	Grant element of GCF contribution	$235 418 600	*$0*	*$0*	*$0*	*$87 735 434*	*$147 683 166*
	As a share of total GCF contributions	*91%*	*0%*	*0%*	*0%*	*37%*	*63%*
TOTAL	Number of projects	11	0	0	2	3	6
	Grant element of GCF contribution	$258 918 600	*$0*	*$0*	*$18 500 000*	*$92 735 434*	*$147 683 166*
			0%	*0%*	*7%*	*36%*	*57%*

It can be noted that only 13% of the GCF contribution in private-sector projects are dedicated to activities in vulnerable countries, although some projects or programmes such as the GEEREF NeXt fund of funds (FP038) have activities in multiple countries (vulnerable or not) and have been classified in the "Other" category. It can nevertheless be interpreted as consistent with the higher level of risk perceived by the private-sector in these markets.

The average concessionality of GCF projects for private-sector projects is 22%, as summarised in Table 11 which also outlines the main results obtained by category of country and type of activity. These results must nonetheless be carefully interpreted since the number of projects considered is not statistically significant.

Table 11: Concessionality of GCF instruments in Private-sector projects

GCF Concessionality Private-sector	Vulnerable	Other	All countries
Adaptation	N/A	N/A	N/A
Cross-cutting	35%	0%	28%
Mitigation	5%	23%	21%
All projects	**15%**	**23%**	**22%**

Public-sector projects

The GCF has approved 32 public-sector projects or programmes, for a total face value of $1.068 bn. 23 of those projects mostly relate to adaptation activities, for a total of $0.728bn (68% of the total face value of public-sector projects). It can be noted in Table 12 that 56% of the GCF contribution in public-sector projects is intended for vulnerable countries.

Table 12: Overview of GCF portfolio – Public sector projects

			Project theme				
	PUBLIC-SECTOR PROJECTS	**TOTAL**	**Adaptation**	**Mostly adaptation**	**Cross-cutting**	**Mostly mitigation**	**Mitigation**
Vulnerable	**Number of projects**	**18**	13	1	1	1	2
	As a share of total projects	*56%*	*72%*	*6%*	*6%*	*6%*	*11%*
	Amount of GCF contributions	**$596 763 016**	*$335 553 016*	*$50 000 000*	*$17 000 000*	*$86 000 000*	*$108 210 000*
	As a share of total GCF contributions	*56%*	*56%*	*8%*	*3%*	*14%*	*18%*
Other	**Number of projects**	**14**	8	1	1	0	4
	As a share of total projects	*44%*	*57%*	*7%*	*7%*	*0%*	*29%*
	Amount of GCF contributions	**$470 883 900**	*$312 958 300*	*$29 523 000*	*$6 240 000*	*$0*	*$122 162 600*
	As a share of total GCF contributions	*44%*	*66%*	*6%*	*1%*	*0%*	*26%*
TOTAL	**Number of projects**	**32**	21	2	2	1	6
	Amount of GCF contributions	**$1 067 646 916**	*$648 511 316*	*$79 523 000*	*$23 240 000*	*$86 000 000*	*$230 372 600*
			61%	*7%*	*2%*	*8%*	*22%*

			Project theme				
	PUBLIC-SECTOR PROJECTS	**TOTAL**	**Adaptation**	**Mostly adaptation**	**Cross-cutting**	**Mostly mitigation**	**Mitigation**
Vulnerable	**Number of projects**	**18**	13	1	1	1	2
	As a share of total projects	*56%*	*72%*	*6%*	*6%*	*6%*	*11%*
	Grant element of GCF contribution	**$532 691 320**	*$335 553 016*	*$42 367 517*	*$17 000 000*	*$66 212 082*	*$71 558 706*
	As a share of total GCF contributions	*54%*	*63%*	*8%*	*3%*	*12%*	*13%*
Other	**Number of projects**	**14**	8	1	1	0	4
	As a share of total projects	*44%*	*57%*	*7%*	*7%*	*0%*	*29%*
	Grant element of GCF contribution	**$458 666 802**	*$312 958 300*	*$29 523 000*	*$6 240 000*	*$0*	*$109 945 502*
	As a share of total GCF contributions	*46%*	*68%*	*6%*	*1%*	*0%*	*24%*
TOTAL	**Number of projects**	**32**	21	2	2	1	6
	Grant element of GCF contribution	**$991 358 122**	*$648 511 316*	*$71 890 517*	*$23 240 000*	*$66 212 082*	*$181 504 207*
			65%	*7%*	*2%*	*7%*	*18%*

As shown in Table 13, the level of concessionality of public-sector projects is very high since it reaches 93% for the 32 projects considered (99% for adaptation activities, and 78% for mitigation activities).

Table 13: Concessionality of GCF instruments in Public-sector projects

GCF Concessionality Public-sector	Vulnerable	Other	All countries
Adaptation	98%	100%	99%
Cross-cutting	100%	100%	100%
Mitigation	71%	90%	78%
All projects	**89%**	**97%**	**93%**

Global portfolio

The total contribution of the GCF considering all approved projects and programmes amounts to $2.260 bn. Adaptation activities represent only 32% of this amount, but as much as 58% of the concessionality approved by the Board.

Table 14: Overview of GCF portfolio – All projects and programmes

			Project theme				
	ALL PROJECTS	TOTAL	Adaptation	Mostly adaptation	Cross-cutting	Mostly mitigation	Mitigation
Vulnerable	Number of projects	21	13	1	2	2	3
	As a share of total projects	*49%*	*62%*	*5%*	*10%*	*10%*	*14%*
	Amount of GCF contributions	$755 263 016	*$335 553 016*	*$50 000 000*	*$70 500 000*	*$111 000 000*	*$188 210 000*
	As a share of total GCF contributions	*33%*	*44%*	*7%*	*9%*	*15%*	*25%*
Other	Number of projects	22	8	1	2	2	9
	As a share of total projects	*51%*	*36%*	*5%*	*9%*	*9%*	*41%*
	Amount of GCF contributions	$1 504 805 900	*$312 958 300*	*$29 523 000*	*$18 462 000*	*$400 000 000*	*$743 862 600*
	As a share of total GCF contributions	*67%*	*21%*	*2%*	*1%*	*27%*	*49%*
TOTAL	Number of projects	43	21	2	4	4	12
	Amount of GCF contributions	$2 260 068 916	*$648 511 316*	*$79 523 000*	*$88 962 000*	*$511 000 000*	*$932 072 600*
			29%	*4%*	*4%*	*23%*	*41%*

		Vulnerable		Other		TOTAL	
Adaptation	Number of projects	14	*61%*	9	*39%*	23	*53%*
	Amount of GCF contribution	$385 553 016	*53%*	$342 481 300	*47%*	$728 034 316	*32%*
Cross-cutting	Number of projects	2	*50%*	2	*50%*	4	*9%*
	Amount of GCF contribution	$70 500 000	*79%*	$18 462 000	*21%*	$88 962 000	*4%*
Mitigation	Number of projects	5	*31%*	11	*69%*	16	*37%*
	Amount of GCF contribution	$299 210 000	*21%*	$1 143 862 600	*79%*	$1 443 072 600	*64%*

			Project theme				
	ALL PROJECTS	TOTAL	Adaptation	Mostly adaptation	Cross-cutting	Mostly mitigation	Mitigation
Vulnerable	Number of projects	21	13	1	2	2	3
	As a share of total projects	*49%*	*62%*	*5%*	*10%*	*10%*	*14%*
	Grant element of GCF contribution	$556 191 320	*$335 553 016*	*$42 367 517*	*$35 500 000*	*$71 212 082*	*$71 558 706*
	As a share of total GCF contributions	*25%*	*60%*	*8%*	*6%*	*13%*	*13%*
Other	Number of projects	22	8	1	2	2	9
	As a share of total projects	*51%*	*36%*	*5%*	*9%*	*9%*	*41%*
	Grant element of GCF contribution	$694 085 402	*$312 958 300*	*$29 523 000*	*$6 240 000*	*$87 735 434*	*$257 628 668*
	As a share of total GCF contributions	*31%*	*45%*	*4%*	*1%*	*13%*	*37%*
TOTAL	Number of projects	43	21	2	4	4	12
	Grant element of GCF contribution	$1 250 276 722	*$648 511 316*	*$71 890 517*	*$41 740 000*	*$158 947 516*	*$329 187 373*
			52%	*6%*	*3%*	*13%*	*26%*

		Vulnerable		Other		TOTAL	
Adaptation	Number of projects	14	61%	9	39%	23	53%
	Grant element of GCF contribution	$377 920 533	52%	$342 481 300	48%	$720 401 833	58%
Cross-cutting	Number of projects	2	50%	2	50%	4	9%
	Grant element of GCF contribution	$35 500 000	85%	$6 240 000	15%	$41 740 000	3%
Mitigation	Number of projects	5	31%	11	69%	16	37%
	Grant element of GCF contribution	$142 770 787	29%	$345 364 102	71%	$488 134 889	39%

Types of instruments

The very high level of concessionality described in the previous section for public-sector projects is strongly related to the fact that the GCF has mainly extended grants in the various projects and programmes approved by the Board. Table 15 illustrates that grants represent 83% of the financial instruments approved for public-sector projects.

The financial instruments used for private-sector projects are more diverse since loans represent 58% and equity participations represent 33% of the private-sector portfolio. Even though the amount extended is not considerable, a high number of grants have been extended to private-sector projects along with other types of financial instruments (7 out of 11 projects received a grant).

Table 15: Type of instruments extended by the GCF

Type of instruments Private-sector projects	Number of instruments	Total amount	
Grants	7	$82 359 334	7%
Loans	5	$692 840 666	58%
Equity	5	$397 222 000	33%
Guarantee	1	$20 000 000	2%
TOTAL	18	$1 192 422 000	

Type of instruments Public-sector projects	Number of instruments	Total amount	
Grants	33	$890 646 916	83%
Loans	4	$177 000 000	17%
TOTAL	37	$1 067 646 916	

Type of instruments All projects	Number of instruments	Total amount	
Grants	40	$973 006 250	43%
Loans	9	$869 840 666	38%
Equity	5	$397 222 000	18%
Guarantee	1	$20 000 000	1%
TOTAL	55	$2 260 068 916	

C.3.2. Compliance with Board decisions

Investment framework (Decision B.07/06)

This high-level analysis enables us to evaluate the compliance of the current portfolio of projects and programmes with GCF's portfolio targets, as stated in the investment framework (Annex XIV to decision B.07/06).

Out of the five portfolio targets defined in this decision, three targets are in the scope of the present review, and the assessment of these targets is presented in Table 16.

Table 16: Evaluation of achievement of portfolio targets

Initial allocation parameter	Initial portfolio targets	Evaluation
Balance between mitigation and adaptation	50/50 (over time)	This target can be evaluated in three different manners. See below for more details.
Adaptation allocation for vulnerable countries	Floor of fifty per cent of adaptation allocation	56% of the adaptation allocation went to vulnerable countries.
Geographic balance	Reasonable and fair allocation across a broad range of countries	The issue is not in the scope of our review but we did not see any systematic bias against countries or regions.
Engagement with the private sector	Maximize fund-wide engagement with the private sector, through significant allocation to the PSF	Private sector projects and programmes have received 53% of the GCF resources and 21% of their concessionality
Readiness and preparatory support	Sufficient support for readiness and preparatory activities	This target is not in the scope of our review and has not been evaluated

The achievement of the first portfolio target can be assessed in three different ways:

– **Number of approved projects**: 23 projects mostly correspond to adaptation activities (53% of all projects), while 16 mostly correspond to mitigation activities (37%).

– **Amount of GCF contributions**: $728 million have been allocated to adaptation activities, which represents 32% of the total amount of approved projects. This amount can be compared to the $1,443 million allocated to mitigation activities (64% of total GCF contributions).

– **Grant elements**: $720 million in grant-element equivalent have been allocated to adaptation activities (58% of total grant elements approved by the Board), in comparison with $488 million for mitigation activities (39%).

Therefore, the achievement of the first portfolio target remains uncertain because, in terms of nominal resources, almost two thirds of the GCF contributions have been directed to mitigation activities. The conclusion is however different if the level of concessionality of those resources is taken into account since the allocation of concessionality is more balanced between adaptation and mitigation activities.

Decision B.05/07

This decision related specifically to the financial T&Cs of grants and concessional loans. One of the factors that must be considered to determine the level of concessionality of financial instruments is "the average concessionality or grant element of the financial inputs to the Fund and the average concessionality or grant element of financial instruments of the Fund".

Document GCF/B.17/Inf.04 was presented at the 17th Board meeting, and outlines the status of the GCF resources, as described in Table 17.

Table 17: GCF Resources as of March 31, 2017

GCF Resources		
Grant contributions	**$3 033 758 056**	*76%*
Cash	*$1 916 402 872*	
Promissory notes	*$1 117 355 184*	
Capital contributions	**$962 631 299**	*24%*
Cash	*$569 433 562*	
Promissory notes	*$393 197 737*	
Investment income earned	**$21 257 619**	*1%*
TOTAL	**$4 017 646 974**	

GCF resources are currently composed of 76% of grants, whereas grants for projects and programmes approved by the Board represent only 43% of the total amount of GCF contributions. **At this point in time, GCF non-reimbursable resources more than cover non-reimbursable uses**.

C.4. Detailed analysis

C.4.1. Public-sector projects

GCF contributions to the projects

The share of GCF contributions in project budgets varies greatly between the public-sector projects reviewed. Three main categories of projects have been established to explain these variations:

– The projects receiving grants from all cofinanciers;

– The projects receiving grants from the GCF and both loans and grants, or only loans from other cofinanciers;

– The projects receiving loans from all cofinanciers.

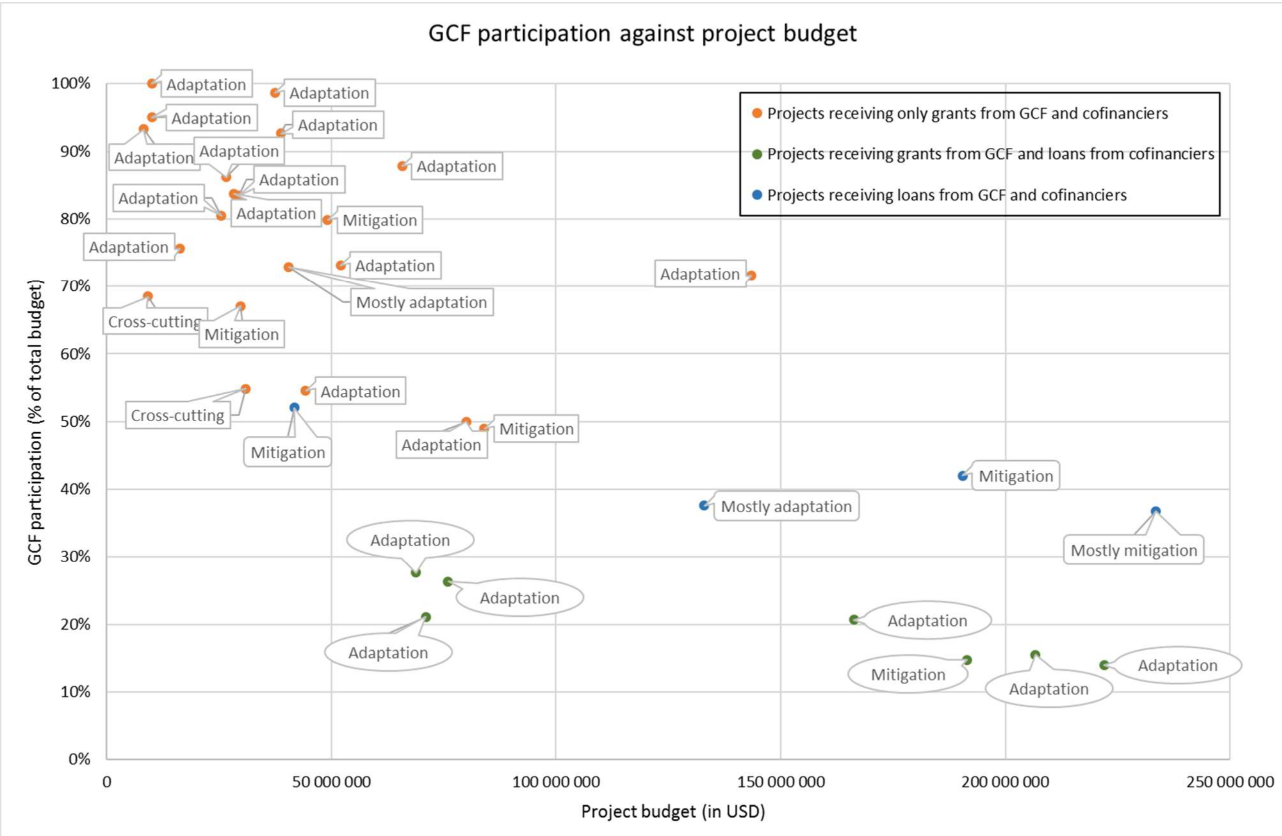


Figure 5: GCF participation as a share of total project budget

The first category of projects corresponds mainly to adaptation projects: those projects are mostly micro and small projects and exhibit an important level of GCF participation as a share of the project budget.

The second category has the lowest share of GCF participation in the project budget, and is mainly composed of adaptation projects. Those projects are nonetheless generating revenues and are therefore more likely to be funded through loans that projects of the first category (for example FP043 relates to the Saïss water conservation project which has a revenue component through the sale of water to farmers).

The last category mainly relates to mitigation activities. It must be noted that the average share of GCF participation in these projects is higher than for the second category (but the instrument provided by the GCF is less concessional for the last category).

Level of concessionality

The previous section gives a general overview of the instruments used by the GCF and by other cofinanciers to participate in public-sector projects. The level of concessionality of GCF financial instruments is nevertheless more significant to this review.

Figure 6 illustrates the very high level of concessionality that has already been highlighted in the portfolio analysis of section C.3.1, since only four loans have been extended to public-sector projects, in comparison with the 33 grants extended in 32 projects considered**.**

As a result, the mean level of concessionality of GCF resources is equal to 93% for public-sector projects, whereas the mean level of concessionality for cofinanciers is equal to 64%.

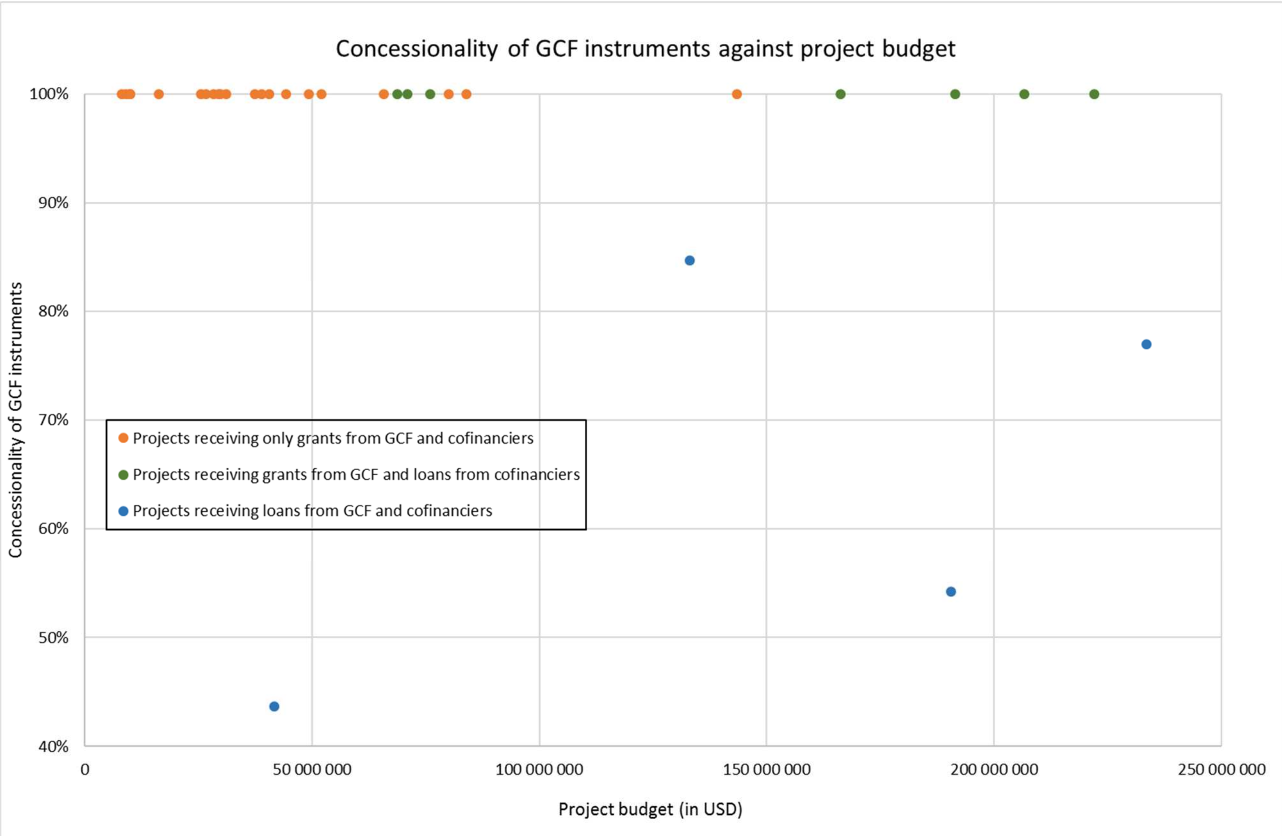


Figure 6: Concessionality of GCF instruments extended to the public sector

The next sections intend to assess whether this elevated level of concessionality is in line with the project's expected results in the GCF investment criteria.

Concessionality leverage ratio

One of the guiding principle applicable to both private and public-sector operations for determining financial T&Cs of financial instruments is "*leveraging of other financing, including public and private financing, seeking to maximise leverage in the case of private financing*" (Annex III to decision B.05/07).

Document GCF/B.10/06 defines the concessional leverage ratio as "*the amount of additional financing that the Fund can deploy for a given amount of grant element deployed*" and states that the concessional leverage will occur through three mechanisms: type of instrument, reflows to the Fund and third-party leverage. In this review, we will define the concessional leverage ratio as the sum of two components:

- "Type of instrument" component, equal to the ratio of the non-grant elements of GCF instruments to their grant elements;
- "Third-party" component, equal to the ratio of the cofinanciers contributions to the project to the grant elements of the GCF contribution. This component can further be broken into two subcomponents: the "Grant third-party" and "Non-grant third-party" components.

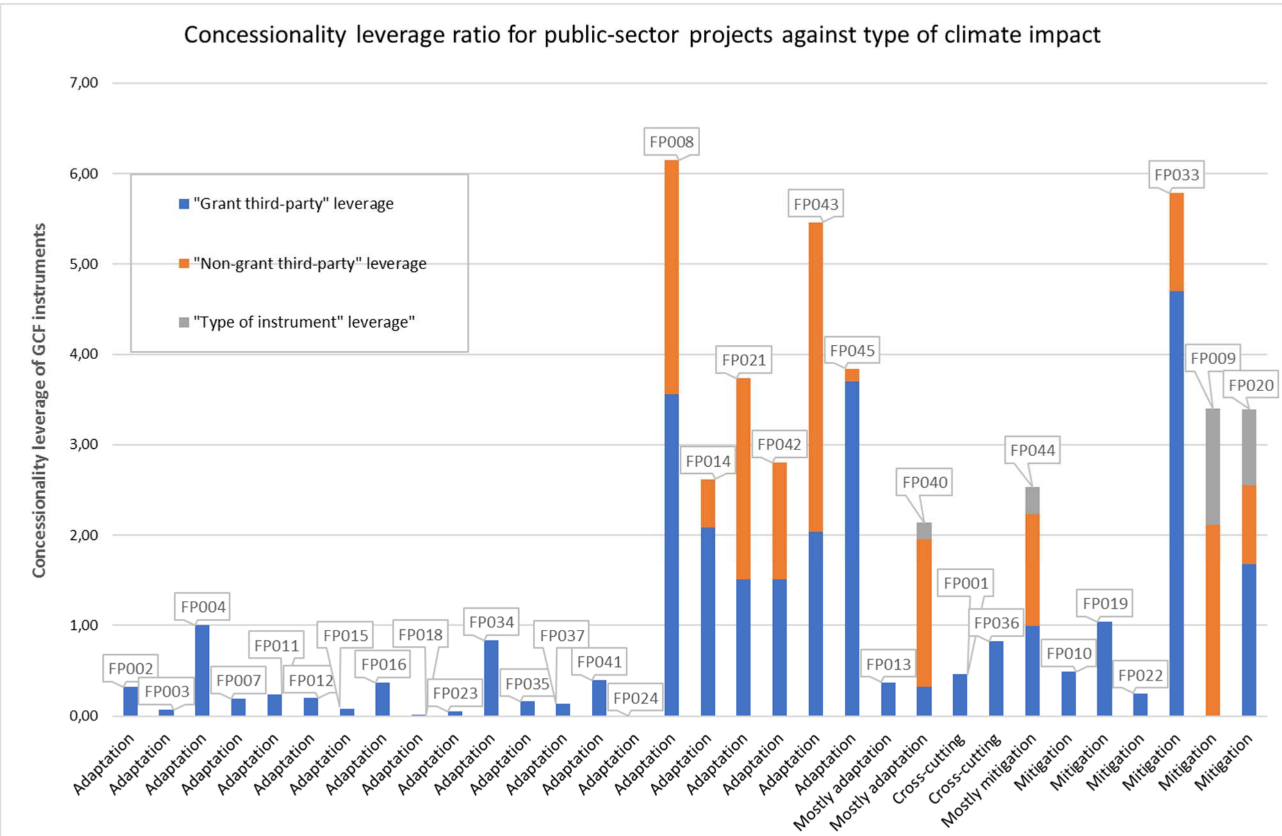


Figure 7: Concessionality leverage ratio for public-sector projects

The results obtained for public-sector projects are presented in Figure 7 which shows that in all but one case, the concessionality leverage ratio is inferior to 1 when the GCF financing only leverages other grants from cofinanciers (for FP019, this ratio is equal to 1.04).

The key driver of the leverage ratio is therefore to structure project financing with at least one loan extended either by the GCF or by cofinanciers, since the mean value of the concessionality leverage ratio is equal to 1.54 for all public-sector projects while it reaches an average 3.81 within projects with at least one loan.

Furthermore, revenue-generating adaptation projects can obtain higher leverage ratio (FP008 is the Fiji Urban Water Supply and Wastewater Management project and FP033) through the mobilisation of concessional loans from cofinanciers.

Lastly, FP009 (Energy Savings Insurance - El Salvador) is the only project where no cofinancier provided a grant contribution to the project and FP024 (Empower to Adapt: Creating Climate-Change Resilient Livelihoods through Community-Based Natural Resource Management in Namibia) is the only project where the GCF provided the whole budget.

Rationale behind level of concessionality

The previous parts have described the GCF level of participation in the project budget and the level of concessionality of the resources provided.

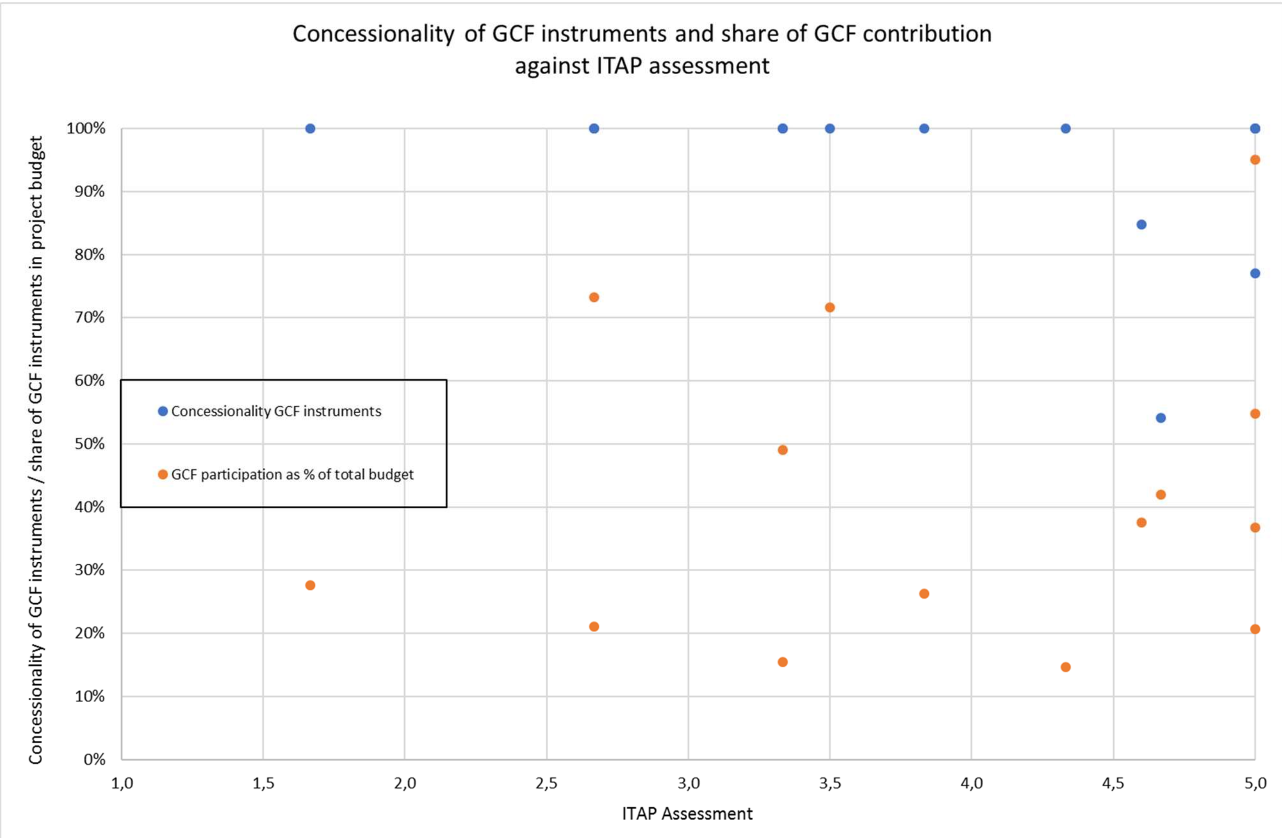


Figure 8: Relation between concessionality and ITAP assessment

One of the main issues of this revue is to determine whether the Board decisions were respected in the projects approved until the 16th meeting. We have thus investigated if there was a clear link between the level of concessionality granted to a specific project and its evaluation based on the investment criteria outlined in the investment framework.

The first analysis that has been carried out is related to the evaluation of the independent technical advisory panel (ITAP) and is summarised in Figure 8. The rating obtained by a project in the ITAP assessment has been calculated in the following manner:

- Each investment criterion (Impact/result potential, paradigm shift potential, sustainable development potential, needs of the recipient, country ownership and institutional capacity, and efficiency and effectiveness) is rated by the ITAP on a 5-level scale (Low, low/medium, medium, medium/high, High).
- When these evaluations were available or partly available, we have converted this scale into a numeric scale (1 for low, 5 for high) and calculated the arithmetic mean of those ratings. This aggregate rating has been calculated **for the 14 projects which had received a rating in their ITAP assessment**.

This figure shows that there is no significant correlation between the rating obtained with the ITAP assessment in the 14 projects considered and the level of concessionality, or the share of the budget which was financed by the GCF. It can for example be seen in this graph that the project which obtained the lowest rating in its ITAP assessment received the highest level of concessionality (even if the GCF instruments only covered a share of the project budget).

Since the results of the ITAP evaluation are not always available in the same format, we have carried out other analyses, with the objective to determine the key drivers behind the level of concessionality approved in public-sector projects. This analysis has been undertaken with three different approaches.

The **first approach** applies to all public-sector projects and relies on the definition of an aggregate indicator which is the sum of two components:

- A **country indicator** with rating from 0 to 5, for which the country category (vulnerable or not) accounts for 2 points and the country status (UMI, LMI, LI, LI/YL, LI/RL) accounts for 3 points.
- A **project indicator** with rating from 0 to 5, for which the project theme (adaptation, cross cutting or mitigation) accounts for 2 points, the type of financial participation (fund, project finance, revenue generating public-project or non-revenue generating public project) accounts for 2 points and the scale of the project (pilot, one-off or scale-up) for 1 point.

The aggregate indicator does not aim to encompass all investment criteria, but covers significant elements that must be considered to determine the level of concessionality (like the indebtedness of recipients, the nature of the project, its capability to generate revenues, its level of innovation, etc.).

The results obtained in Figure 9 show that there is no significant correlation between a project score with this aggregate indicator and the level of concessionality obtained.

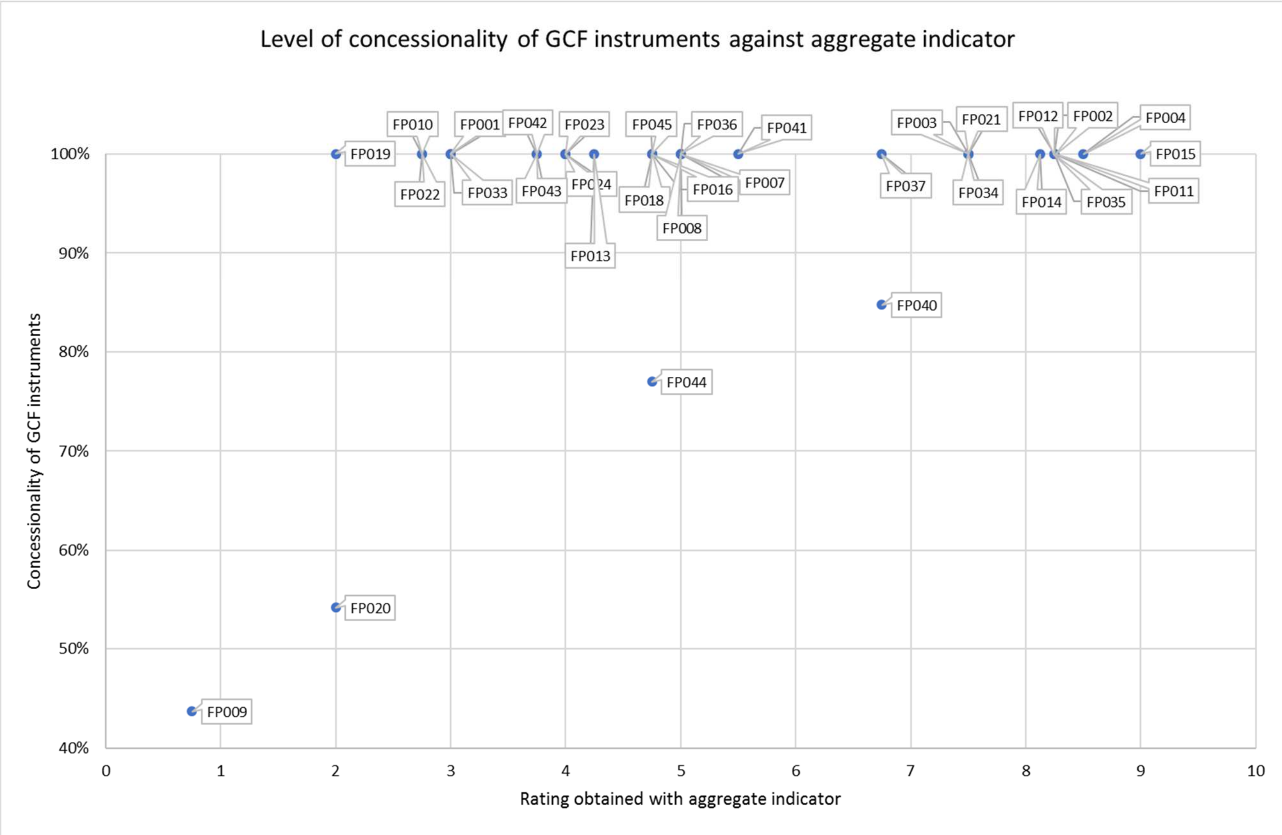


Figure 9: Relation between concessionality and aggregate indicator

The **second approach** is based on the expected carbon impact for the public-sector projects which contain a mitigation component. The carbon impact is calculated as the GCF contribution divided by the expected tonnes of carbon dioxide equivalent (t CO2 eq) to be reduced or avoided with the implementation of the project.

We could expect the concessionality to be higher for a lower cost of reducing CO_2 emissions, but this is not clearly shown in Figure 10.

Two projects are outliers in this figure: there is an explanation for FP022 (Development of Argan orchards in Degraded Environment - DARED) since it is a very specific type of mitigation project (forestry) and is thus quite different from RE projects. The other outlier (FP036 - Pacific Islands Renewable Energy Investment Program) is nevertheless harder to justify since it is a project in the energy sector. Moreover, both projects did not score very well in the aggregate indicator of Figure 9.

The **third approach** is based on an independent assessment of a mix of public and private-sector projects, presented in section 0.

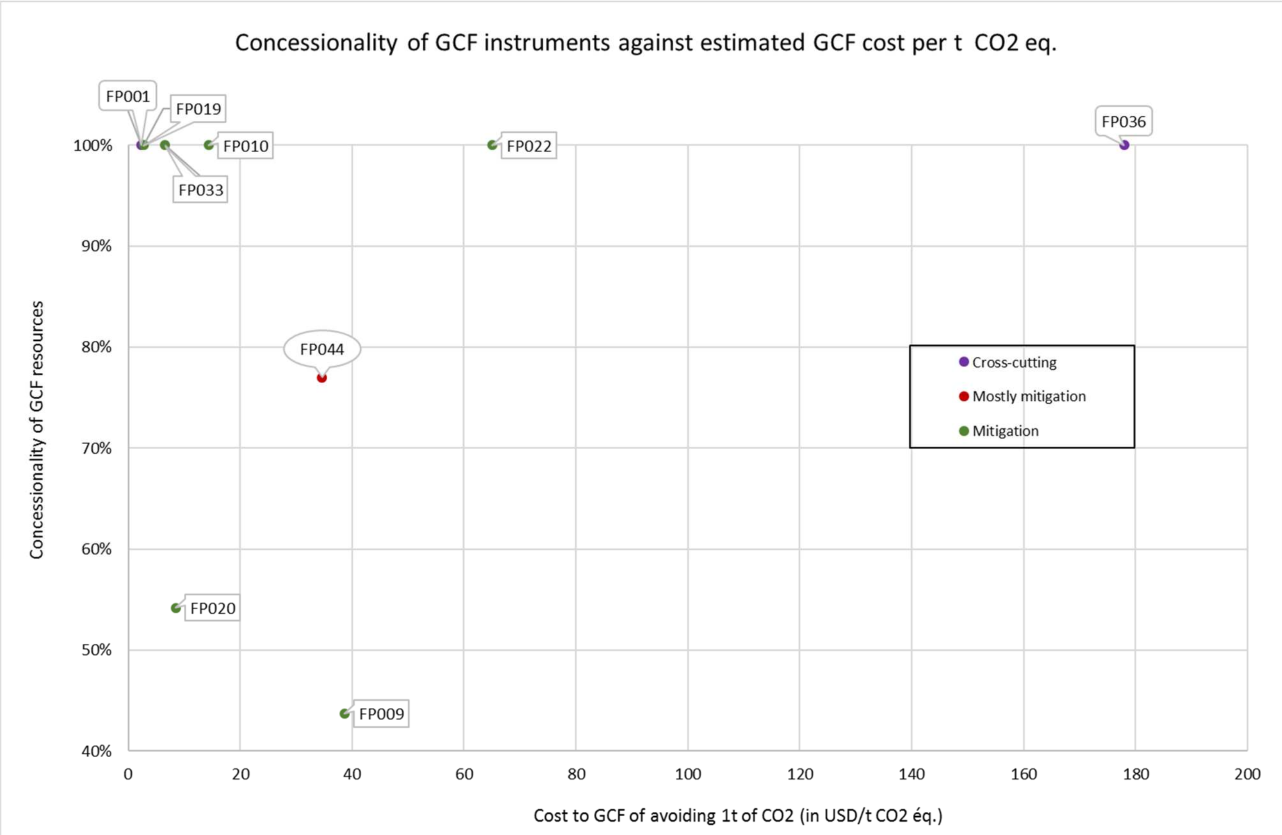


Figure 10: Relation between concessionality and estimated cost pet t CO_2 eq.

Compliance with Board decisions

Board decisions relating to T&Cs have been described in detail in section C.1, and the main criteria applicable to public-sector projects are summarised in Table 18.

Table 18: Compliance with Board decisions – Public-sector projects

Instruments	Principle	Evaluation
Grants	No repayment contingency Terms and conditions consistent with Annex II to decision B.09/04	A grant with repayment contingency has been allocated to project FP020 (Sustainable Energy Facility for the Eastern Caribbean), but it is consistent with the technical nature of the activity[15].
Concessional loans	Terms and conditions consistent with Annex II to decision B.09/04 Level of concessionality established following principles and factors of decision B.05/07	T&Cs of concessional loans extended to public-sector projects are consistent with annex II to decision B.05/07. For FP020 (low concessionality), the AE requested a lower commitment fee which remains consistent with the Board policy ("up to" 75 bps).

[15] Repayment contingencies are common in the identification of geothermal resources.

Other instruments	Terms and conditions determined on a case-by-case basis	There were no other instruments approved by the Board

For concessional loans, the guiding principles that had to be considered to determine the level of concessionality (Annex III to decision B.05/07) are summarised in Table 19.

Table 19: Compliance with decision B.05/07 – Concessional loans

Principle	**Compliance evaluation**
Grant elements should be tailored to incremental cost or the risk premium required to make the investment viable, or to cover specific activities such as technical assistance	In many cases, there was no quantitative analysis for the selection of a specific level of concessionality. For revenue-generating activities, funding proposals included a financial model[16] and used economic arguments (such as tariffs) to justify the overall level of concessionality. But in many cases, there was no clear rationale behind the GCF level of concessionality requested.
Seeking the right level of concessionality, so as not to displace investments that would otherwise have occurred, including for private sector investment	
Levels of indebtedness capacity of the recipient should be taken into account so as not to encourage excessive indebtedness	Arguments related to the level of indebtedness of the recipients were seldom considered in funding proposals. This was confirmed by the approach illustrated in Figure 9.
Structure terms on a case-by-case basis to address specific barriers	Condition mostly applicable to private-sector projects
Avoid crowding out commercial financing	All public revenue-generating projects appear to have negative financial returns, and therefore would not sustain commercial financing.
Leveraging of other financing, including public and private financing, seeking to maximise leverage in the case of private financing	Concessional loans achieved a concessionality leverage ratio between 2.14 and 3.40 (between 1.96 and 2.55 for the third-party component), but few concessional loans were extended.
Promote long-term financial sustainability	The AEs presented clear exit strategies in their funding proposals.
Apply due diligence to assess the risk to the investment	Risk management is not in the scope of this review

[16] Those models were not reviewed by the Consultant.

C.4.2. Independent assessment of projects

We performed a more detailed qualitative analysis of 20 projects. These projects were selected to be representative of the overall GCF portfolio in terms of thematic area (mitigation, adaptation, etc.), access modality, project size and types of financial instruments as described in Table 20. It resulted in a proportion of private-sector projects slightly superior to the portfolio proportion (8 out of the 20 projects considered).

Table 20: Description of project sample

Thematic area	Number	As share of sample	Corresponding share in portfolio
Adaptation	7	35%	49%
Mitigation	9	45%	33%
Cross-cutting	4	20%	19%
TOTAL	20		

Access modality	Number	As share of sample	Corresponding share in portfolio
Direct	5	25%	26%
International	15	75%	74%
TOTAL	20		

Project size	Number	As share of sample	Corresponding share in portfolio
Micro	2	10%	12%
Small	3	15%	37%
Medium	9	45%	35%
Large	6	30%	16%
TOTAL	20		

Instruments	Number	As share of sample	Corresponding share in portfolio
Grant	10	50%	65%
Equity/Grant	3	15%	9%
Guarantee/Grant	1	5%	2%
Loan/Grant	4	20%	19%
Equity	1	5%	2%
Loan	1	5%	2%
TOTAL	20		

In the GCF project cycle, two assessments of a given funding proposal are submitted to the Board for its consideration: the ITAP assessment and the Secretariat's assessment of the project or programme. However, since these processes have been added to the original project cycle after the first funding proposals were submitted to the Board, the corresponding assessments are not available for all projects, and the methodology used has not been the same for all projects (for example, many evaluations did not contain ratings for each investment criterion).

For each selected investment criterion, we thus carried out a qualitative assessment, and used the same rating methodology as the ITAP. Then:

- Each criterion was rated on a 5-level scale (Low, low/medium, medium, medium/high, High).
- This rating was then converted into a numeric scale (1 for low, 5 for high) and the arithmetic mean of those ratings was calculated. This aggregate rating has been calculated for all 20 projects.

This methodology was then used to assess whether the level of concessionality was consistent with the independent assessment of the project performance on this representative sample of projects.

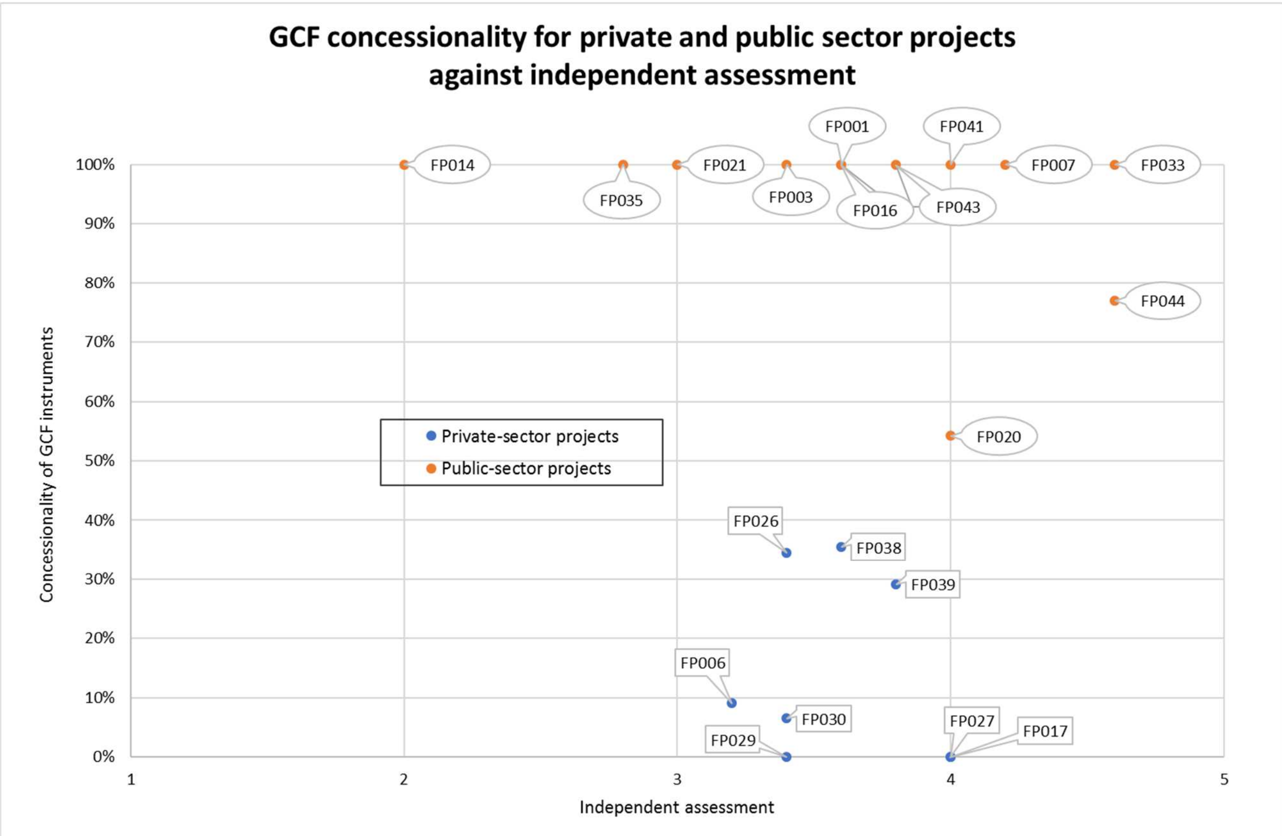


Figure 11: Relation between concessionality and independent assessment

Figure 11 illustrates this analysis and shows that some projects with a low rating received a very high level of concessionality, as was the case for the relation between concessionality and ITAP assessment for public-sector projects illustrated in Figure 8.

The results obtained for private-sector projects are commented in the following section.

The independent assessment we carried out in this section led us to identify issues in the ITAP evaluation process that are described and commented in Appendix D, along with the detailed list of projects considered for the assessment.

C.4.3. Private-sector projects

As described in section C.3.1, the Board has approved 11 private projects, which only relate to cross-cutting and mitigation activities.

Since the GCF policy relies on a case-by-case approach for private-sector projects, and the concepts of concessionality and additionality are of particular significance for this type of project, we have performed a more detailed and qualitative analysis of each project, in order to assess the level of concessionality approved in these projects and the additionality of the GCF participation.

Quantitative approach

However, we performed the same kind of analysis as for public-sector projects to determine whether general trends could be found in the current GCF portfolio of private-sector projects.

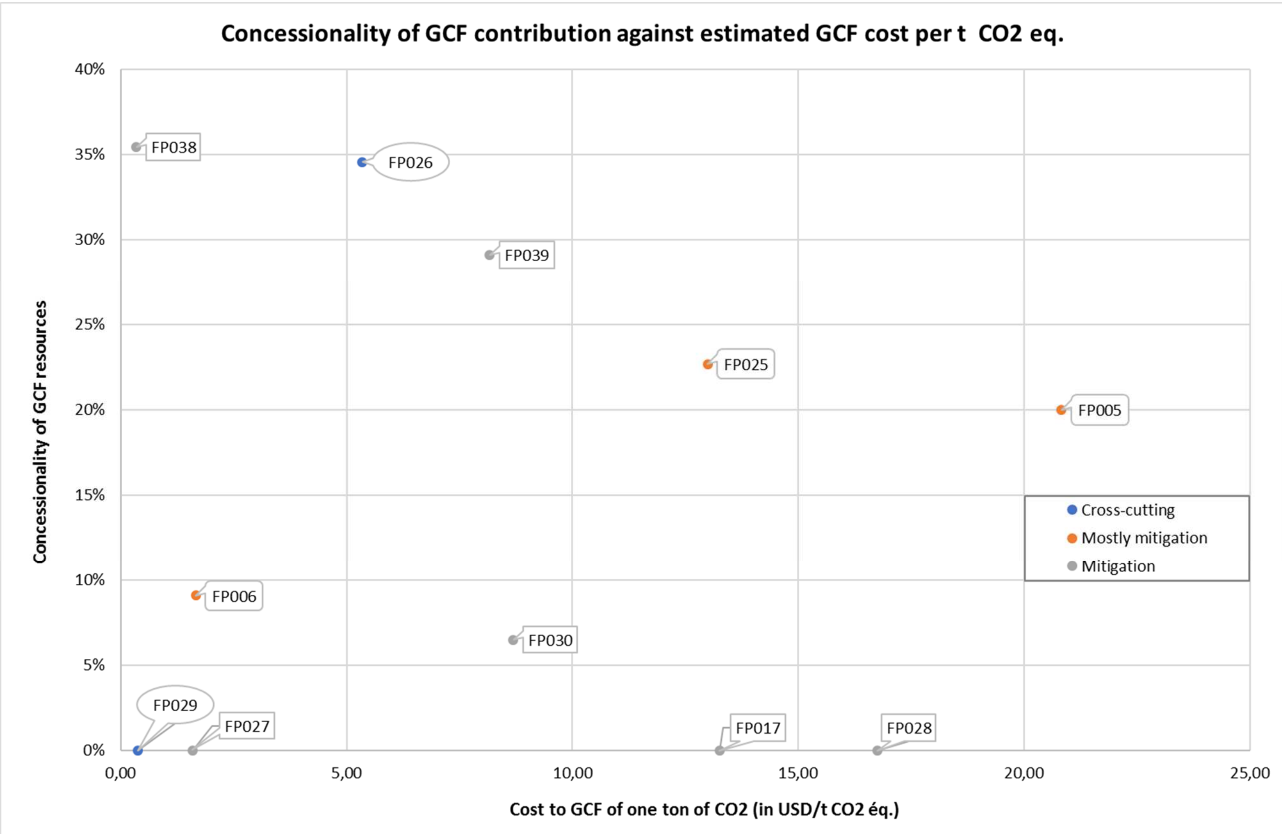


Figure 12: Relation between concessionality and estimated cost pet t CO_2 eq.

Figure 12 represents the concessionality of GCF resources against the cost to avoid the emission of 1t CO_2 eq. which shows that there is a high variability in this cost and that there is no clear correlation between the level of concessionality and this cost. The significance of this result is limited because:

– The methodology to assess carbon impact seems to vary broadly from one project to another, which is especially problematic for funds or funds of funds since they reduce carbon emissions through the final beneficiary projects.

– As explained in section C.2.1, the methodology used to calculate the level of concessionality of GCF resources is not completely adapted to financial instruments that are neither loans nor grants (and the GCF has five projects with equity participation).

Moreover, Figure 13 shows that there is no clear relation between concessionality and the quality of the FPs as reviewed by the ITAP. The same can be said about the relation between concessionality and the rating obtained in the independent assessment carried out in section C.4.2.

It can however be noted that the average rating of private-sector FPs is superior to the average rating of public-sector FPs since the lowest rating is 3.6 (even if 4 projects did not receive ratings in their ITAP assessments).

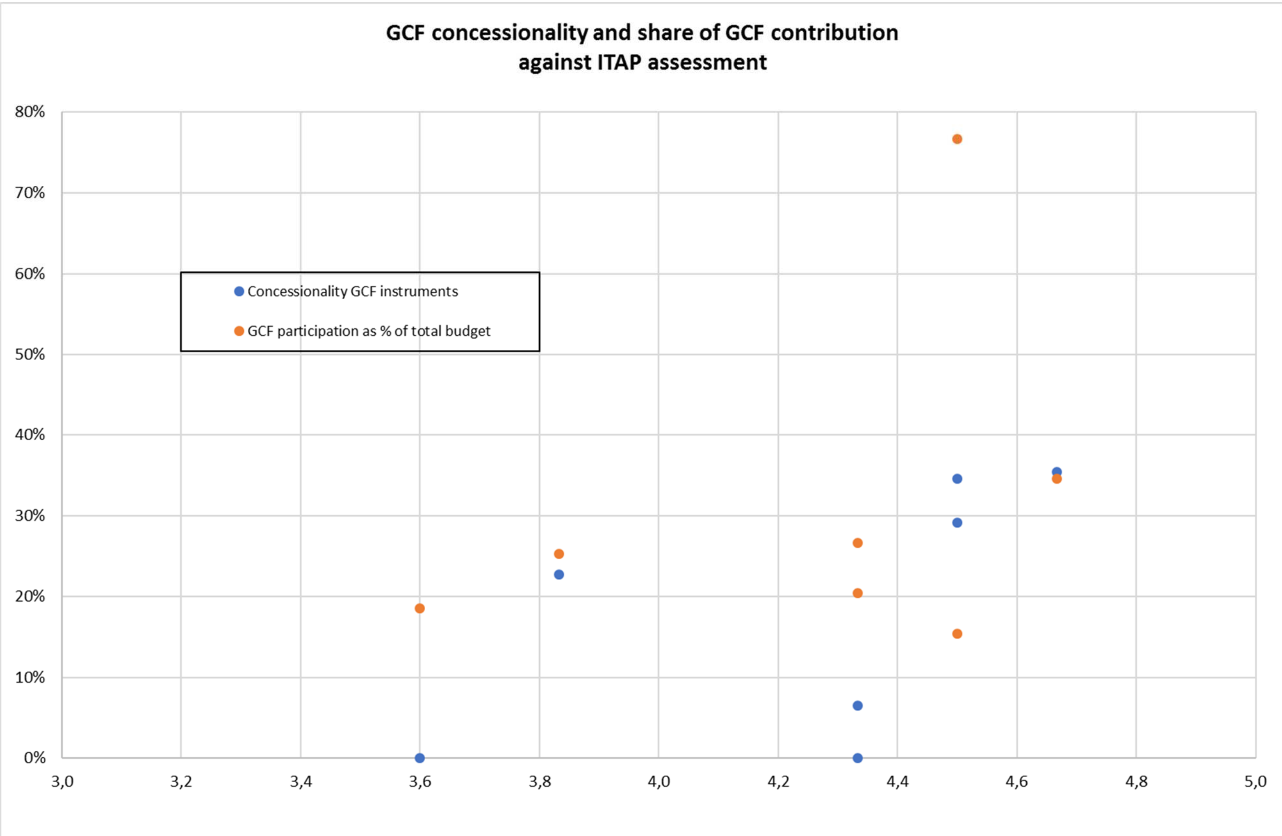


Figure 13: Relation between concessionality and ITAP assessment

Qualitative approach

To perform the more detailed and qualitative analysis, a specific classification described below has been used for the type of beneficiary, the project cycle and the main use of concessionality:

- **Type of beneficiary**: funds, funds of funds, and credit lines; Project finance (SPV); other types.
- **Project cycle**: pilot; scale-up of an existing pilot; one-off FP.
- **Main use of the provided concessionality**: de-risking; cost incentive; mixed or other, with the clarification that this last characterization relates to the main use of the funds (many projects also include a grant element for technical assistance, project development, or capacity-building).

Only one project, the Tarapacá Region Solar Development Programme in Chile (FP17), was a stand-alone investment, through a project finance SPV. All ten others were a form of fund, fund of funds or credit line, and our review characterised them as follows:

Table 21: Private-sector project categories

Main use of concessionality	Cycle	Pilot	Scale-up of existing pilot	Other	Total	% of total
De-risking	Number of FPs	0	2 (FP06, FP38)	1 (FP27)	**3**	**27%**
	Total GCF funds (USD million)	0	287	80	**367**	**31%**
	Total grant-equiv. Amount (USD million)	0	96	0	**96**	**37%**
Cost incentive	Number of FPs	0	2 (FP28, FP29)	3 (FP25, FP30, FP39)	**5**	**46%**
	Total GCF funds (USD million)	0	32.2	665.7	**697.9**	**58%**
	Total grant-equiv. Amount (USD million)	0	0	139.4	**139.4**	**54%**
Mixed or other	Number of FPs	2 (FP05, FP26)	0	1 (FP17)	**3**	**27%**
	Total GCF funds (USD million)	78.5	0	49	**127.5**	**11%**
	Total grant-equiv. Amount (USD million)	23.5	0	0	**23.5**	**9%**
Total	**Number of FPs**	**2**	**4**	**5**	**11**	**100%**
	Total GCF funds (USD million)	**78.5**	**319.2**	**794.7**	**1,192.4**	**100%**
	Total grant-equiv. Amount (USD million)	**23.5**	**96**	**139.4**	**258.9**	**100%**

Based on the available documentation[17], we qualitatively reviewed in Table 22 each funding proposal along the following characteristics:

- The concessionality level and the justification for such concessionality,
- The justification of additionality,
- The resulting consistency with Board policy.

[17] Funding proposals, ITAP assessments, AE response to ITAP assessment, term sheet when provided by GCF, and in some cases interviews and/or videos of the Board discussions on the funding proposal.

Table 22: Detailed review of private-sector projects

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP005	KawiSafi Ventures Fund in East Africa- Kenya and Rwanda	The Ventures Fund will target SMEs active in the mini-grid & off-grid market and is of a pilot, high-risk, nature. The GCF investment would be in the form of anchor equity, and given the pilot nature of the initiative and the high uncertainty about future returns, it is impossible to determine the amount of concessionality attached to the fund. However, the pilot nature, the type of activities targeted, and the countries targeted (low-income, vulnerable) appear to fully justify the use of equity.	Anchor GCF capital may help attract other development finance sources to the initiative.	The investment appears consistent with Board policies at the time (as well as later ones).
FP006	Energy Efficiency Green Bond in Latin America and the Caribbean	GCF financing complements an already-approved pilot in Mexico with additional partial credit guarantees, and would enable scaling up the funding mechanism to other LAC countries. The program provides for a de-risking instrument to enable the securitisation of EE receivables, in turn enabling ESCOs to raise more funds. Pricing of the EE receivables, and pricing of the Green Bonds issued on the basis of securitised receivables, is by nature market-based.	GCF funds complement other funds (in particular IDB and CTF) and do not appear to crowd out other funding options.	The de-risking mechanism used and the nature of the instrument appear consistent with Board guidelines. While securitisation instruments have shown that they do have a strong indirect effect on market prices, with the potential to severely disrupt markets in the longer term (see the examples of housing loans and municipal loans in the USA), in the case of EE investments it is an objective of the GCF to support such market shift.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP017	Climate Action Solar Energy Development Programme in the Tarapacá Region	Both senior lenders (CAF & GCF) are priced commercially at the same level (min 375 bps over LIBOR). From the interview with the CAF, we understand that the concessionality of both instruments lie in their tenor (20 years) which is longer than the longest tenors of commercial-priced loans (12 years).	The additionality comes from the lack of adequately-termed local commercial finance. No justification was provided in the FP as to whether other DFIs could have financed the project, but the CAF indicated that it could not raise DFI financing because of several reasons. Firstly, the revenue risk is relatively high (this is not a fixed-price/defined volume IPP, the electricity will be sold at market prices), which makes the risk profile unacceptable for certain institutions, even though the project gearing is low (45% equity). Secondly, some lenders had already achieved their allocation cap for this specific country/sector, or were already involved in similar projects in Chile and did not wish to increase their exposure. The absence of concessionality in the senior debt pricing would likely result in refinancing with other sources if the project meets revenue targets, once the remaining debt service period comes down to tenors available in the local commercial market (in particular, the sponsors would have an incentive to do this to increase gearing). Refinancing would further increase GCF additionality, ex-post.	The use of identical, commercially-priced T&Cs between both senior lenders secures compliance with the GCF Board's guidelines. The concessionality of both lenders lies in a long tenor compared to what could be obtained in the market. The only comment we could make is that other instruments could have been considered (for instance a guarantee for a private lender to extend the tenor it could provide on purely commercial terms).

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP025	Scaling up private sector climate finance through local financial institutions (GCF-EBRD SEFF co-financing Programme)	The proposed programme -- the single largest approved amount in GCF's portfolio -- is a programme of lines of credit to Partner Finance Institutions (PFIs) in 13 countries (out of which 12 are middle income) for mostly mitigation investments in a wide variety of project types. The term sheet indicates that the concessionality stems from a "Discount of 80% on EBRD margin with floor" and a "Discount of 80% on all EBRD fees". The FP states: "Concessionality will consist of reduced pricing compared to EBRD pricing and market finance. The provision of such reduced pricing is a key element attracting PFIs. It will enable PFIs to justify internally the acceptance of the enhanced reporting and monitoring requirements, as well as the expenditure of setting up new lines of business in unproven markets, and the investment in training of loan officers. Concessionality will be tailored to the specific local market situation within the parameters established as part of this Programme application. The relatively low level of blended concessionality does not allow for a requirement to have this passed on to the end client of the PFIs."	In effect, the programme ensures that EBRD will have access to USD 420 million in concessional GCF funds (out of which 9% in grants and 91% in concessionally-priced debt (CONDITIONS TBC)) to provide partner financial institutions with USD 1.5 billion in attractively-priced credit lines for climate change-related activities, blending GCF concessionality with EBRD's own commercially-priced financing. The size of the facility and the lack of market data in the FP raises questions as to whether the proposed facility does not risk replacing other local, bilateral or multilateral financing sources, instead of being entirely additional. The information provided in the available documentation is not sufficient to answer these questions.	The concessionality justifications listed in the FP amount to providing a cost incentive to local banks and other financial institutions to promote climate change-related lines of business. The leverage effect may be significant, and vast past EBRD experience with similar climate change-related credit lines may ensure that GCF concessionality is indeed efficiently used by the proposed programme. However, the available documentation does not enable us to identify how the programme will address the risk of substituting other financing sources with an EBRD/GCF blend, which would run against Board requirements. Monitoring by the GCF of actual concessionality granted should mitigate that risk. Since efficiency of the design is difficult to assess, despite past similar EBRD programmes, the GCF could have instead proposed to phase its contribution into the programme, and evaluate results of a first phase before committing to further financing.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP026	Sustainable Landscapes in Eastern Madagascar	Targeted activities are high-risk, high return assistance to particularly vulnerable sectors. Beyond GCF grant resources justifiably used for purely public goods in a vulnerable and poor country, the GCF provides a large equity contribution into an Investment Fund. The Investment Fund has two classes of shares, one with target returns for private investors consistent with typical returns on other EIB bond issuances, and one with lower returns and a first-loss risk position, where the GCF and the EIB ACP SFF programme hold a similar position. The first-loss position and lower target returns for this class of shares constitute a form of concessionality. Further, all returns and profit from GCF's investment into the Investment Fund will capitalised, subject to further GCF approval, into a Madagascar Climate Change Trust Fund. If this is confirmed, the GCF investment will, in effect, be entirely a grant.	GCF involvement helps leverage other sources of funding which otherwise would not be available for Madagascar.	Given the vulnerability of the beneficiaries, the investment appears consistent with Board policy: even if the GCF ultimately approves the use of investment returns for a Madagascar Climate Change Trust Fund, which would in effect turn the GCF contribution into a 100% grant and make it a public project (subject to rules on the use of funds for the Trust Fund), this can be justified by a large proportion of adaptation activities and the high-vulnerability, low-income, "yellow light"-debt stress status of Madagascar. In addition, the proposed Investment Fund mechanism seeks to maximise mobilisation of otherwise unavailable sources of private finance for the country.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP027	Universal Green Energy Access Programme - Multiple countries	Despite its title, the fund is not a scale-up of an existing pilot but a new, one-off proposal. It aims at providing re-financing and de-risking to local and regional development banks for off-grid, mini-grid and B2B ESCOs, while keeping strong incentives for adequate risk appraisal by these banks through leaving them with a first-loss tranche. It would also provide some direct loans to ESCOs. UGEAP is funded similarly to EIB's GEEREF (described in FP038), by attracting international private investors through the provision of a first-loss tranche of equity to de-risk investors' equity input. However, unlike GEEREF, GCF equity is here fully subordinated to private investors target equity return (thus providing higher risk coverage than GEEREF), but the target return (base case) of the GCF is only 1% lower than the target return of private investors. Concessionality is therefore essentially in the form of de-risking.	The FP indicates: "Local and regional development banks such as PTA Bank are the target partner for this structure. These banks do not have deposit taking businesses and therefore rely on debt funding from local or international markets as well – which can be a more expensive funding source than deposits. This hinders local and regional development banks to take on larger projects in the energy sector which in turn limits the market development. Through the syndication option, which has been developed in response to requests from local and regional development banks such as PTA, the UGEAP will provide the additional capacity and give access to larger amounts of funding compared to what is currently available locally. This will enable loans to clean energy projects and companies to be made available which could not have been financed by local and regional development banks on their own."	The proposed structure appears to comply with Board requirements regarding concessionality, additionality and leverage. However, a compelling analysis of actual market demand at beneficiary level (ESCOs) is lacking in the funding proposal. Unlike other proposals based on scaling-up pilots, UGEAP does not have the benefit of prior observation to size the proposed facility. The analysis of energy demand and shortages, and market outlooks, provided in the FP fails to show that non-financial barriers (which very likely exist) will not prevent UGEAP from disbursing at a normal pace. There is no analysis of ESCO capacity, nor, like in other proposals, details about accompanying capacity-building measures. In this context, the very large fund target amount (USD 500 million) and the correspondingly large amount of GCF equity formally committed for this proposal (USD 132 million) may not be an efficient use of GCF resources. The phasing of the fund's capital calls mitigates this issue but does not avoid it, since the GCF must consider this capital as committed, even if not disbursed. Further, this project raises an issue about fees and the separation between AE functions and Implementing Entity functions.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP028	Business Loan Program for GHG Emission Reduction	As per the financial model, concessionality offered through the GCF loan would enable XacBank to make EE/RE financing conditions more attractive, moving from 18.0% and 19.2% interest rates, with tenors up to only 5 years, to 14-15%, with loan tenors of up to 8 years. XacBank further indicates that it is not making any profits on the current program, only covering costs. As indicated in the FP, in Mongolia, "the low-interest rate government loans are distributed through commercial banks. The market interest rates for obtaining a loan vary widely, from low to extremely high. Loan rates typically available to the average MSME looking to implement EE/RE solutions tend to land on the high side, which is the biggest barrier for most of them, followed by general awareness of the possibility of such a solution's availableness. As such, the program aims to offer rates on the lower side of the spectrum of available, non-government subsidized rates to promote and catalyse EE/RE projects and awareness in the market. Doing so will not cause a disruption in the market, but rather will incentivize many MSMEs to pursue EE/RE solutions."	The concessionality incentive provided under the program does not appear available from other sources.	The scale-up nature of the program enables basing the proposed terms and conditions on experience from the first phase, which helps meet Board guidelines.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP029	SCF Capital Solutions	The GCF-provided equity will be at a somewhat lower return than the equity provided by other investors in the fund, which can be considered as a form of concessionality. However, this difference is small (a target 15% IRR for the GCF vs. a target 17% IRR for the other investors). The difference is required, under the funds' financial model, to provide a sufficiently attractive return to a private investor in the fund. Financial model assumptions are based on DBSA's experience under the pilot that the proposal is meant to scale-up.	DBSA had been in discussions with various DFIs about expanding the pilot, but took the opportunity of a GCF call for proposals to structure the GCF funding proposal.	The pricing is only slightly inferior to what the market would provide in terms of return to a private fund investor. In terms of loan interest to the borrowers, the interest charged is said by DBSA to be close or slightly inferior to what creditworthy SMEs would obtain on the market, however the main barrier tackled is the unavailability of loans for the targeted business lines. The pilot provides a solid justification about that the level of financial incentive has been set at the minimum required to reach policy objectives, which we find meets the GCF Board requirement.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP030	Catalyzing private investment in sustainable energy in Argentina - Part 1	Concessionality offered on senior GCF loans through the facility is limited through a term sheet-specified minimum average spread at portfolio level, with the specified minimum spread appearing to be between 100 and 250 bps below market rates at the time. Additional concessionality is offered as an incentive to the implementation of gender-focused activities.	The FP indicates that "Based on IDBG's consultations with other lenders during the months leading to submission of this proposal, multilateral agencies looked likely to only be able to provide under USD 500 million total co-financing for the first RenovAr tender, with another USD 100-150 million coming from the European DFIs (in comparison with about USD 1- 1.2 Billion of long-term debt financing required). This fully justify additionality of GCF funding based on the scarcity of debt instruments of adequate tenor. Further, the attractively-priced guarantee mechanism works as a balloon payment guarantee to enable commercial lenders to provide synthetic extended-maturity loans, thus leveraging commercial financing in a potentially effective way.	The concessionality provided by the GCF in this project is limited, and the lack of long-term commercial or even DFI debt in Argentina is a real issue for RE development -- an issue which GCF funding does address. As we discuss elsewhere in this report, there is an overall justification for the GCF to promote the development of RE projects through financings that result in a cost incentive. However, in this specific case, there is no mechanism within the proposed structure to ensure that the concessionality is directed towards reducing end-point RE prices, rather than simply make it possible for the other senior lender (IDB Group's IIC) to price their own debt higher than other DFIs, while presenting project sponsors with a similarly priced, or lower-priced, financing package. To avoid this possibility, which would run against GCF Board guidelines, we recommend either (i) periodic reviews of pricing against local benchmarks, for this facility; or (ii) that the GCF enter into discussion with one or two other DFIs (such as IFC or bilateral development banks) to provide them access to a similar facility for the Argentinian market (which could be justified given the expected volume of RE investments).

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP038	GEEREF NeXt	The financial structure of GEEREF NeXt, which scales up the existing GEEREF, enables channelling substantial amounts of funding from international institutional investors with an appetite for climate transactions, but with very strict risk-taking limits, towards investment funds that are active in countries and project types that would normally be off-limits to these institutional investors. GEEREF investments in downstream funds are then made on strictly commercial terms. A simplified description is to say that, seen from the end-of-the line projects, GEEREF is meant to resolve an availability of funds barrier, and not a pricing barrier. GCF equity is used as first-loss equity that protects institutional investors from even very downgraded scenarios, thus enabling institutional investors to meet their own investment criteria. There is no objective method to quantifying de-risking in terms of level of concessionality. However, there is 10% target equity IRRs difference in the base case are different between the GCF (A shares) and the institutional investors (B shares), which is a form of concessionality. The level of this difference is identical to the successful GEEREF, and is based on institutional	While the initial GEEREF was funded by bilateral aid from the Norwegian and German governments, these sources were not available anymore for scaling-up into GEEREF NeXt. No other sources were identified.	Basing the funding proposal on a pilot enables precise sizing of the de-risking and concessionality necessary to achieve policy objectives. This, together with the high leverage generated by GCF funds, contributes to meeting the GCF Board requirement to provide just the minimum necessary amount of GCF funding and concessionality. However, since the GCF was not tied by ODA classification criteria (like the first GEEREF sovereign contributors), it is possible that the level of concessionality in GEEREF NeXt's base case target IRR could have been somewhat lowered compared to the concessionality in the first GEEREF.

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
		investors typical IRR requirements and an overall IRR target for GEEREF similar to the return of infrastructure funds of funds in low-risk environments. In the initial GEEREF, it was also designed so that the A shares would meet DAC concessionality criteria and thus be classified as Overseas Development Aid (ODA). Finally, pure grant resources are used to provide necessary technical assistance for capacity-building and the development of a good quality project pipeline; this appears adequate given that these are typically strong barriers to renewable energy project development in target countries.		

FP	Project name	Concessionality level and justification	Additionality justification	Consistency with Board policy
FP039	Egypt renewable financing framework	Given the difficulties in attracting financing for a country of macroeconomic challenges, the requirement for concessional financing to kick-start the renewable power generation programme can be justified. At sub-project level, the pricing of the GCF tranche will be based on the commercial pricing of the EBRD tranche; any concessionality (i.e. discount to EBRD tranche) applied to the pricing of the GCF tranche it will be determined by EBRD, applying the principle of minimum concessionality. Pricing of the GCF Tranche will be subject to a floor rate differentiated between wind and solar projects. However, there is no explanation about how the AE will determine « minimum concessionality » (neither in terms of methodology nor in terms of process). Ideally the process or methodology for such determination should differentiate between feed-in tariff projects and reverse auction projects	There is clear additionality of a concessional funding source with long tenor to attract private equity capital into investing to meet the Government of Egypt's RE targets. However, GCF concessional funding is tied to EBRD's non-concessional, commercial funding and there is no information about the availability of other DFI financing.	See comments in FP30 which are similarly applicable here.

Conclusion on compliance with Board decisions

Project-level analyses did not identify issues of non-compliance with Board-approved guidelines on the choice of instrument and on instrument terms and conditions.

However, we believe that a small number of programmatic private sector mitigation projects could be at risk of running askance of Board guidelines in the course of their implementation, depending on how term sheet commitments are understood, effectively applied, and monitored. This issue does not appear in projects that use GCF funds for de-risking, but only concerns line-of-credit projects where concessionality is used to lower RE or EE projects' financing costs, where we see risks stemming from the lack of mechanisms to ensure that GCF concessionality is effectively and efficiently transferred down. These risks were found acceptable by the Secretariat in view of the importance of kick-starting the private sector pipeline and fostering further engagement with more AEs.

In interviews, the Secretariat indicated that they believe that actual concessionality required will be in many cases lower than the one corresponding to the loan pricing floors agreed upon with the respective AEs. We nonetheless suggest mitigation measures in section E.3.

C.5. CASE STUDIES

We conducted interviews with Project Managers (PM) or AE representatives for a sample of seven projects (FPs 17, 21, 29, 33, 38, 43 and 44). We asked the professionals interviewed to be as candid as possible – many were eager to be, as they saw this as an opportunity to provide feedback to an institution whose purpose they highly value. To enable candour, we do not mention below the source of the assessments or feedback collected. Whenever information is purely factual, or our own assessment, we reference the project.

Process

<u>AE's organization to work with the GCF</u>

All but one of the interviewed AEs have a dedicated unit or at least dedicated staff that manages the use of climate funds, including the GCF, in AE operations. In most cases the group existed before the AE's involvement with the GCF, and managed the relationship with other climate funds such as the GEF. The EIB did not have such a unit dedicated to climate fund, but does have a unit dedicated to partnership funding ("groupe des mandats").

In all cases the role of these "climate funds partnerships" units or groups is to help identify funds that could be used for the project proposed by operational teams, then help these teams structure the project accordingly, and advise teams on, or directly contribute to, writing proposal documentation and secure approvals.[18] Their role in fostering a robust pipeline of GCF projects is therefore essential.

To strengthen the GCF pipeline, Some AEs plan to hire staff to strengthen their "climate fund

[18] In the case of DBSA, the group was also the one who designed and manages the GCF-funded programme, because they were the ones managing the South African Green Fund programme. For other projects that would call upon GCF resources (such as infrastructure projects), DBSA works like the other AEs.

partnerships" team or unit.

Only one of the "climate funds partnerships" groups, however, appeared to have a formalized role in independently approving the use of concessionality for climate-funded projects (IFC's), with a view to make the use of concessionality as efficient as possible, the same way an independent credit committee would have a role in ensuring the efficient use of a Bank's financial resources.

Relative timing of the GCF's and AE's approval processes

The time required from the idea to ask for GCF resources to GCF Board approval varied greatly between reviewed projects – from as little as six weeks to as long as two years. Many, but not all, PMs experienced significant frustration with the difficulty to coordinate the timelines of the GCF's and their own AE approval processes. This appears partially due to GCF staff ramp-up issues which several PMs found resolved in more recent interactions with the Secretariat; delays due to the time needed to negotiate AMAs before FAs could be finalized was also an issue. (This is significant in terms of fees because extended preparation periods create large costs.)

AEs that did not experience timing issues were those who took the opportunity of a GCF Request for Proposals. Some managed the timing uncertainty by deciding to delay their own internal approvals until after the GCF Board approval. For others, where GCF funds enabled adding a climate component into a "classic" infrastructure project, the timing uncertainty has been more challenging. Relative timing is important because it may impact the possibility for co-financiers to adjust their financial terms and conditions, or not, if the GCF approval process materially changes terms and conditions compared to those initially envisaged.

Secretariat and ITAP FP development and review processes

PMs welcomed having a GCF focal point for FP preparation. AEs who benefited from early extensive involvement of the Secretariat viewed that experience as rather positive and geared to a common objective of getting the FP approved (a PM said he felt he "formed a team" with the Secretariat, other welcomed "in-depth" discussions or exchanges "on a day-to-day basis"). The process was sometimes viewed as "intense".

The ITAP review process raised more criticism. Recurring ones were the lack of local knowledge by ITAP members, and the impression to face more the opinions of an individual expert than an institution with consistent policies. Even when the ITAP review was found to have gone well, no interviewed PM found that it added much value to the FP's design, at least regarding financial terms and conditions. With few exceptions, AEs do not understand the added value of this onerous due diligence that doubles up with their own approval processes. Further, some PMs were frustrated that dialogue on basic design questions came this late in the process, which was not an adequate timing to recommend "surprising" changes.

Several PMs and AEs noted that the concept stage review brought up very few issues, and the FP stage, too many. This applies, among other design questions, to the choice of instrument and to pricing principles. In at least one case, the PM felt that the choice of instrument could have been challenged at concept stage, and wasn't; at FP stage, it would have been too difficult to change the instrument, and the matter was not discussed.

One PM wondered why the GCF private sector advisory board did not seem involved in the review process.

On one specific project, the PM expressed surprise that neither the Secretariat nor ITAP pointed to the more significant issues about the project's technical and financial design – which had a potentially strong effect on the project's climate impacts – and focused instead on non-climate-related design issues that were well within the AE's main expertise. In particular, significant assumptions to the financial and economic models were left unchallenged.

Selecting, structuring and pricing financial instruments

Selecting and sizing the GCF financial instrument

The private FPs in the interview sample (FP038 - EIB and FP029 - DBSA) did not raise any issue of instrument selection, because the mere design of the project called for a specific instrument: second-rank equity, which provides de-risking to otherwise reluctant private investors. Since both FPs were scale-ups of pre-existing pilots, facility sizing also benefited from the experience and market knowledge of the pilots.

Some public FPs raised more comments regarding the process by which the instrument was selected. Two PMS thought that a grant would make public policy work more palatable to the beneficiary government than having to borrow for it. None of the AEs appear to have given much consideration to requesting a concessional loan rather than a grant. Yet in two cases (both adaptation), the AEs' own financing came in the form of a concessional loan.

Those choices did not appear to have raised much discussion from the GCF at concept stage. In some cases, there appears to have been a later brief discussion on the loan option or on sizing, but at time when it was deemed not possible to change the instrument anymore.

Sizing was straightforward when justified by adding climate-focused components on a "plain" infrastructure project, where it could even be justified by a separate feasibility study; the rationale was less clear where there was no such approach.

We felt the sizing of the GCF instrument may have had more to do, in some instances, with the overall cost of the blended grant-loan package, than with other considerations.

Lack of, and need for guidelines

Prior to proposing a project concept, no PM had a clear or even broad understanding of how the choice of instrument would be evaluated by the GCF. Several would have found it useful to have more precise guidelines on selecting the appropriate instrument.

Sizing "soft" facilities

All FPs but one included a portion of grant funding for technical assistance activities.

In FP38 (EIB's GEEREF NeXt), the Technical Assistance Facility will have the double aim of building capacity at the level of the specialised funds, and incubation of specialised funds or beneficiary projects in specially challenging environments, such as SIDS.

By contrast, and probably by exception to an otherwise almost systematic practice in GCF-approved FPs, DBSA did not include such facility in its FP (FP29); they indicated that they linked with several other entities in South Africa which were already providing such assistance in the required fields. DBSA did not feel they would bring much added value themselves compared to existing providers.

All AEs stressed the importance of accompanying TA, but it is striking that, with DBSA's exception, the FPs contain little information about other donor programs that may be active on the topic.

One AE felt that, through technical assistance-targeted grant components, the GCF could exert more leverage over topics that matter most for climate change: many Governments, for instance, are reluctant to implement extensive monitoring activities. More overall selectivity between reimbursable and non-reimbursable resources could incentivise the implementation of such activities.

Possible instruments for policy work

One AE noted that GCF support to policy measures had until now been limited to funding inputs such as capacity-building and technical assistance, while many DFIs made more and more use of results-based financing and policy-based financing.

Structuring and pricing financial instruments

Setting pricing and concessionality

For the two FPs that scaled-up pilots, pricing and concessionality derived from results on the pilots. The purpose of concessionality in these private fund or fund of funds FPs was primarily to de-risk private investors' contributions to the fund. However, beyond the first-loss coverage, the dividend waterfall structure can be tweaked to modify the balance of base case returns between the GCF and private investors: there is a profit incentive (on top of first-loss de-risking) that is meant to increase the structure's attractiveness. While this trade-off might have been somewhat enhanced when moving from the pilot to the scale-up, in both cases there was a prudent joint AE-Secretariat choice to stay with the same parameters.

For the public FPs, the choice of the instrument (grant) essentially determined concessionality.

When the other AE instruments were debt (in two of the public cases), the amount of the grant relative to the rest of the project determines a "concessionality leverage". It is noteworthy that in the two cases where co-financing is in the form of debt, the AEs (AFD and EBRD) determined the level of concessionality not based on the specific project, but based on their standard uniform pricing for public projects (which is essentially based on their own cost of funds), on country macro-economic conditions (AFD for example will follow IMF recommendations on the required level of concessionality in a given country), and in some cases on the sector (AFD for example may provide higher concessionality to sanitation vs. energy).

Financial and economic appraisal

While a few AEs indicated that GCF requirements led them to put more emphasis on financial and economic appraisal than they normally would have, there was very little discussion with either the Secretariat or ITAP on the assumptions used for these analyses.

This raises the question of using quantitative economic analysis (ERR calculation) to justify the requested level of concessionality (which was done in one of the FPs). First, in our experience these analyses are often not robust enough to be used for anything else than comparisons between project design options. Second, the analyses are in most cases performed after the choice, sizing and pricing of the financing instrument (again it was the case in the FPs here), which results in almost systematic bias.

Additionality

Several AEs indicated that meeting the requirements to become an AE, and later, preparing FPs, led them to go beyond their usual project preparation focus – for instance regarding gender issues. Through AMA negotiations, this beneficial effect of GCF involvement sometimes went as far as improving general AE policies.

The PMs' assessments of GCF additionality varied. Others found GCF funds strongly additional because they enabled them to convince governments in beneficiary countries to undertake activities they would otherwise not; or because it was the only institution they knew who would accept taking an equity first loss with a sufficient scale, which was key to their structure.

The EIB highlighted its statutory incapacity to take second-rank positions in financial structures: the flexibility of the GCF to take risk tranches is thus key to its leverage objectives, since despite huge global liquidity, few institutions can do this.

For one FP, we felt that the beneficiary Government would have carried out the activity with or without GCF involvement, possibly with its own financing but more likely finding another donor.

A few AEs pointed out the fact that some of their former providers of concessional climate funding re-directed their resources to the GCF. While this may dent the additionality of the overall GCF resources, at project-level it does not affect additionality (on the contrary, it strengthens it).

Link between impacts and the choice of instruments and financial terms

While all AEs are comfortable defining results frameworks and indicators for their own monitoring, they found the discussion with the GCF about measuring climate impacts challenging.

Some PMs would have welcomed clearer guidelines on defining a « project beneficiary » (for adaptation) or avoided tCO_2eq (for mitigation). They understand the complexity of the issue, as well as its risks. One wondered whether the absence of approved FPs in certain sectors, like transport, may be due to this difficulty. Several noted that estimating standard "beneficiary" indicators for funded policy actions may not always mean much.

The link between impact evaluation, and the choice of instrument or financial conditions was obviously even more remote.

Conditions and covenants set by the Board

The feedback received during case study interviews regarding conditions and covenants set by the Board is detailed in the next section.

C.6. CONDITIONS AND COVENANTS SET BY THE BOARD

C.6.1. Feedback from case study interviews

According to interviewees, most Board-required conditions precedent or covenants did not create difficulties nor imposed additional costs on the AE. The need to have a climate specialist, in the DBSA FP, results in additional costs but this was not considered a major issue. Conditions and covenants provided adequate buffer on financial structuring requirements, compared to AE estimates (e.g. the maximum time to bring additional investors in FP038 or the maximum non-performing loan percentage in FP029).

However, a surprisingly high number of FPs that we selected for interview – three out of eight – had one specific condition or covenant that was found to be particularly onerous:

- The requirement on tariff-setting in FP043;
- The condition precedent on financing house connections in FP021;
- The change in instrument pricing (half of the loan amount switched to low-concessionality instead of high-concessionality) in FP044.

Further, only the latter of these three concerns the use of GCF funds for climate objectives; the first two are design issues for which due diligence falls within the normal preparation work of the AE.

PMs did not expect such fundamental issues to be raised so late in the preparation process. Even where they understood the GCF's Board rationale, they felt that a better solution could have been found to address the GCF's concerns, had the issues been raised earlier. PMs pointed to several resulting risks:

- That the project would proceed but the beneficiary would simply never comply with the covenant, the enforcement of which would be very difficult;
- That the GCF-funded activity would simply not proceed;
- That the need to find additional sources of finance would considerably delay the project.

The sample is not large enough to draw a general portfolio conclusion and it can be challenging to identify the impact of a covenant from the list reviewed for all projects without a discussion with accredited entities, but the consequences on project feasibility are significant enough to look at whether the GCF processes could be altered to limit the occurrence of such issues.

C.6.2. Qualitative review of all Board conditions and covenants

We conducted a qualitative review of Board-imposed conditions precedent (CPs) or covenants. As indicated above, a detailed assessment would require more numerous in-depth analysis and interviews with AEs, however we could broadly observe several types of CPs and covenants. The first two types are by far the most frequent and are unproblematic:

- Standard fiduciary, environmental and social safeguards, or legal conditions: they constitute the majority of Board conditions and include provisions like financial management safeguards, the provision of legal opinions, pari passu provisions, co-financiers' commitments, the provision of satisfactory environmental plans, etc. They do not diverge from normal conditions imposed by other DFIs and can be considered as "standard practice" (in case study interviews, PMs did not consider they created any issues).

- "Readiness" provisions: a number of conditions consisted in requiring the AE to complete or provide evidence of elements that would normally be present in a final Board package, such as details on design rationale (e.g. FP014), capacity assessments for implementing agencies (e.g. FP010), formal commitments by Government Agencies on collaboration aspects (e.g. FP018), operational manuals (e.g. FP015), monitoring and evaluation protocol (e.g. FP020), etc. From a pure qualitative review, it seems that these "readiness" conditions are more frequent in the first half of FPs submitted to the GCF Board, which might indicate that they stemmed more from AE's learning curve about preparing a GCF FP and how to coordinate the timing of such preparation with their own design and approval processes; if this interpretation is correct, these conditions should become less and less necessary. Providing AEs with a more predictable GCF approval process (see section E.1) would also help.

Two other types concern a small number of FPs but strengthen the case for improvements we are recommending in section E:

- "Design" provisions: a small number of conditions deal with pure project design issues. In addition to those mentioned in C.6.1 above, a few others can be found, e.g. in FP011 ("Provide a complete market study of the community forest enterprises, including supply and demand opportunities, and possible value chains that could ensure better prices to local communities") or in FP022 ("Submission by the AE of a strategy for leveraging private sector investments"). Without judging the relevance of these requirements, we believe such critical design conditions should be raised earlier in the GCF review process.

- "Concessionality" provisions: FP028 and FP030 (both private-sector) require commitment and demonstration that GCF-provided concessionality is "passed down"; FP014 (public-sector) requires that the "AE provides details on the rationale behind the project's use of grant funding by the GCF as opposed to other instruments (e.g. loans)".

  We note that "concessionality pass-down" provisions were not imposed on other private-sector FPs that may present the same risks (see C.4.3), however term sheets in these FPs require the AE to apply a "minimum concessionality principle" which would give the GCF sufficient legal ground to ask for the kind of monitoring and reporting required in FP028 and FP030 Board conditions. Such monitoring is part of our recommendations (see E.3).

Regarding the conditions in FP014, we believe this supports our recommendations to, first, increase the use of loans in public-sector projects, and second, provide the AEs with clearer criteria on the use of GCF funds, in particular for public projects (see E.1 and E.2).

Finally, we noted that some Board conditions may create enforceability issues, either because of imprecise wording[19] or in some cases, because they are imposed at a very late stage in the disbursement process (the only true remedy of the GCF being to suspend or cancel disbursement). For example, FP042 has a condition applicable "For the last disbursement", and FP024 has a condition applicable "Prior to completion of the Project". In general, we recommend that legal covenants should be precisely worded and leave little room for interpretation, and be required either in the start-up phase of a project, or at a clear change of project phase.

[19] This may be corrected in the FAA.

D. OTHER INSTITUTIONS' PRACTICES

The details of financial terms and conditions and fee policies of the reviewed institutions are included in Appendix C. We provide below key take-aways for respectively the public and the private sectors.

D.1. PUBLIC-SECTOR PROJECTS/PROGRAMMES

General approach to determine concessionality

Several methods exist to determine the type of instruments extended and the level of pricing/concessionality of these instruments. For the purpose of this report, six types can be defined:

- **Uniform**: some institutions can only provide one type of instrument, and provides this instrument to eligible projects (e.g. UNDP, EBRD pricing to sovereigns)
- **Country-based**: concessionality can be determined using country-specific criteria, like the level of indebtedness of the country (e.g. IBRD, IDA)
- **Borrower-based**: DFI pricing for public non-sovereign borrowers is usually driven by credit-analysis (e.g. AFD and EBRD for non-sovereign public borrowers)
- **Sector-based**: concessionality can be determined using sector priorities (e.g. AFD provides concessionality to priority sectors such as sanitation and other environmental projects).
- **Barrier-based**: concessionality can be set by analysing the specific barriers that a project intends to address. This corresponds to a project-specific approach (e.g. GEF, CTF).
- **Mixed** (country and sector, or country and barrier): e.g. AFD.

On one hand, the detailed analysis conducted in Appendix C shows that most development financing institutions rely solely or at least partly on country-based criteria, such as the level of indebtedness or the GDP of the recipient countries, to determine the type of instruments they extend, and the terms and conditions of their instruments; several use a mixed approach, combining country and other criteria.

On the other hand, financial institutions such as the GEF and the CTF adopt a barrier-based approach, which is project-specific.

As discussed further in section E.2, we believe that these two approaches can be combined to design an approach taking into account both country-specific criteria, which are fundamental to select the level of concessionality of financial instruments, and project-specific criteria, which are necessary to fully comply with the GCF's specific mandate.

It is also very relevant for the GCF activities to see that IDA is a donor which offers a high level of concessionality to distressed countries, while maintaining a low share of grants in its portfolio, since IDA total commitments amounted at the end of FY 2016 to USD 16.2 billion, with only 12% provided under the form of grants.

Level of concessionality of concessional loans

For each type of concessional loans described in detail in Appendix C, the resulting level of concessionality has been calculated with the methodology outlined in section C.2. The results presented for the GEF in Table 23 were obtained without considering fees for the GCF instruments since there is no guideline on fees in the GEF guidelines. This table shows that the level of concessionality of the financial instruments extended by those institutions are comparable[20].

Table 23: Comparison of GEF and GCF concessional loans

Comparison with other institutions' instruments (without fees)		
Institution	**Instrument**	**Level of concessionality**
GEF	To LDCs and SIDs	68%
	To other countries	45%
GCF	High concessionality	72%
	Low concessionality	39%

The level of concessionality of the IDA and CTF financial instruments has also been calculated in Table 24 which shows that the GCF and CTF loans are similar for the highest level of concessionality, and that the low level of concessionality of GCF loans is slightly lower than the IDA standard conditions for blend countries.

Table 24: Comparison of CTF, IDA and GCF concessional loans

Comparison with other institutions' instruments		
Institution	**Instrument**	**Level of concessionality**
CTF	Softer concessional	67%
	Harder concessional	43%
GCF	High concessionality	67%
	Low concessionality	31%
IDA	Small Economy[21]	59%
	Regular	51%
	Blend	39%

[20] The GCF nevertheless charges a service fee and a commitment fee on its loans, which could lead to a lower concessionality (see next table) compared to GEF instruments if the GEF does not apply such fees.

[21] For most distressed countries (IMF "red light"), IDA provides only grants. The nominal amount of IDA funding is then reduced by 20% as compared to what it would have been if the country could access loans.

D.2. PRIVATE-SECTOR PROJECTS/PROGRAMMES

Private sector-focused Development Finance Institutions

We interviewed several private sector-focused Development Finance Institutions (DFIs) active in climate finance: the International Finance Corporation (IFC), Proparco, the European Bank for Reconstruction and Development (EBRD). They all determine financial terms and conditions and concessionality in a similar fashion and to our knowledge, so do the many similar multilateral (IIC, AFC…) and bilateral (KfW, CDC, FMO…) DFIs.

They:

- price their financing on a commercial basis, with margin spreads usually based on internal ratings that include a country risk and a project risk;
- provide concessional products by blending their own commercial financing with concessional resources from other institutions or trust funds (e.g., GCF, GEF, CTF, CIFs, FEM, the European Union, a National Government, etc.);
- determine concessionality on a case-by-case basis, following an analysis of the barriers preventing private investment in the project, unless the concessional resource provider specifies otherwise (which is usually not the case).

The only notable differences come from the internal process followed to determine concessionality levels.

In most cases, project teams conduct the barrier analysis and discussions with their clients to determine concessionality. DFIs we interviewed indicated that they found de-risking instruments such as first-loss equity most effective to remove investment barriers. For such instruments, the level of concessionality is more a result of the structure than an input, unlike using concessionality for loan interest reduction. (However, so far interest reduction represents the larger use of GCF concessionality by volume in approved FPs – see C.4.3).

In most if not all DFIs, a separate unit manages the relationship with concessional funds providers and participates in the discussion with the project team to contribute their understanding of each concessional funds provider's specificities (areas of focus and priorities, project cycle, lessons learnt from past funding requests, etc.); these separate units or groups usually manage the DFI's overall relationship with the concessional funds provider.

One DFI however – IFC – has instituted since 2012 an independent "Blended Finance Committee" to review projects that request the use concessional instruments. This committee ensures that concessional resources are used consistently and, through adequate determination of the minimum amount of concessionality required, that concessional resources are used efficiently. It therefore functions similarly to a credit committee, which ensures that policies on the use of balance sheet resources are applied consistently across the institution, so that, through the adequate pricing of risk, the institution's capital is used as efficiently as possible.

IFC's blended finance institutional set-up details

Functions

The IFC manages about US$ 1 billion in climate funds, and a further US$ 3 to 4 billion in other, non-climate trust funds. Given this volume, in 2012 it created a separate Vice-Presidency for Blended Finance to institutionalise the separation between investment teams and teams managing donor resources.

As previously mentioned, a separate Blended Finance Committee was also instituted to ensure that:

- Concessional resources are protected from a fiduciary perspective, and donor-imposed rules are met;
- Investment teams requesting concessional funds do not over-subsidise the proposed Project or Programme;
- Adequate concern is given to sustainability, so that projects do not need or need less concessional resources in the future.

Since 2013, the Blended Finance Vice-Presidency has been providing periodic highlights to IFC's Board on how the institution meets climate finance principles.

Process

Initially blended finance reviews came too late in the investment process, too close to the Board approval. Subsequently IFC modified its blended finance approval cycle which is now as described below.

- The investment team engages early on with the blended finance team to explore blended finance options, and produces a concept note.
- After concept endorsement by the investment committee, the concept is presented to the Blended Finance Committee for separate endorsement; the Blended Finance Committee:
    - Validates the principle of the proposed use of concessional resources and the instrument[22];
    - Ensures key criteria are in place;
    - Provides broad-range pricing implications.
- Following appraisal, where the blended finance team may join the investment team, there is a second, more or less formal Blended Finance Committee approval depending on the level of changes from the concept endorsement.

[22] In particular, the Committee will differentiate between "green" projects that may require concessional resources to be able to reach financial close (such as renewable energy), and projects that use concessional resources to "green" a more standard investment – such as turning a social housing investment into a green social housing investment.

- The Blended Finance Vice-Presidency is involved in negotiations and signs investment documents separately as a unit.
- The blended finance team conducts portfolio monitoring and reporting, which is specific to each donor, and reports annually on results.

Concessionality working group

IFC is currently leading a donor working group comprising over 30 institutions (mostly MDBs and bilateral DFIs) to design enhanced principles on the use of concessionality and on additionality. The OECD is also working on blended finance principles.

Concessional funds providers

As for the concessional funds providers' proposed financial terms and conditions, detailed information is included in Appendix C for the GEF and the CTF.

E. RECOMMENDATIONS

This section of the report aims at outlining our main recommendations for the updated policy on the terms and conditions of the GCF financial instruments. If a few recommendations have a general scope across all types of projects, it is our opinion that there should be a clear distinction in the updated policy between private and public-sector activities.

E.1. GENERAL RECOMMENDATIONS

Streamlining GCF's policy and guidelines on terms and conditions

The policy on terms and conditions for the GCF financial instruments is currently contained in several documents and decisions, that have been described in detail in section C.1.1. This exhaustive analysis is time-consuming, and can hinder its sound understanding by accredited entities.

Realising that its policies and guidelines were spread out in several documents, the GEF has recently undertaken a simplification of its procedures for its project and program cycle policy:

– A single policy document (OP/PL/01) was approved by the GEF Council at its 50th Meeting (June 2016);

– A single guidelines document (GEF/C.52/Inf.06/Rev.01) was presented for information to the GEF Council at its 52nd Meeting (May 2017).

It is our opinion that this approach should be adopted by the GCF for its procedures on the terms and conditions of financial instruments, since it clearly separates the policy approved by the Board from the more precise guidelines prepared by the Secretariat, and enhances the readability of these policies and guidelines for accredited entities.

The next recommendations will highlight what should be included in the Board policy, and what could be further refined in the Secretariat guidelines.

Moreover, the concepts used in the policies and guidelines must be clearly defined at the outset of each document. This is for instance the case for concepts such as concessionality and additionality, but also for ratios such as the level of concessionality and the financing leverage or concessionality leverage[23].

Measuring concessionality

Minimum concessionality is an overarching principle we found in all DFIs and Trust Funds' policies reviewed during this study. However, no institution has designed a clear methodology

[23] Such ratios can be broadly defined in the policy, and more precisely characterised in the guidelines. For instance, the level GCF concessionality can be defined as the ratio of the grant element and the total amount of the GCF participation in the policy while the guidelines could further indicate how to calculate the grant-element for a given project.

to assess and measure precisely the level of concessionality.

The GCF is undertaking a distinct study with a consultant in order to design a grant element calculator, which is the cornerstone of concessionality calculations. We have provided our own thoughts on this topic in section C.2.2 and we see three key points in the design of such a tool:

- **It must be adapted to its purpose**: a grant-element calculator can be used for a general portfolio analysis, as was the case in this study, or to inform the decision-making process on a specific project.

- **It must be adapted to its users**: we find crucial to design a transparent and user-friendly calculation method, so that all accredited entities share the same understanding of how the GCF approaches concessionality.

- **It must be consistent with data quality**: the data available in many emerging markets is most often, if existent at all, very sketchy. The intricacy of the calculation must therefore be adapted to data quality.

- **It must avoid creating biases against main GCF mandates**: de-risking is a powerful way to remove barriers against climate investments. Market failures require instruments that are on face value riskier than simple loans but this does not necessarily correspond to greater concessionality.

Since policies should be formulated in a manner that seeks to encompass all types of instruments, we would recommend that a simplified approach like the one developed in this report be applied in order to calculate the level of concessionality to assess the compliance of a given GCF contribution to a project to the new policy on terms and conditions for public-sector projects.

Enhancing process predictability

One of the findings of our review is that the GCF could **provide more guidance to enhance process predictability** for all types of project. For instance, the impact indicators are calculated in very different manners depending on the accredited entity submitting the funding proposal. GCF's key indicators like the carbon impact could play a role in the determination of the level of concessionality if a clear calculation methodology was given to accredited entities at the concept stage. We reviewed possible methodologies and indicated more detailed recommendations on this issue in Appendix B.

Also as an improvement of process predictability, the review process, including the timing of ITAP's intervention, could be adjusted so that basic design issues can be raised and resolved early, instead of translating into prohibitive approval-stage conditions precedent or covenants. Other recommendations can be found in Appendix D.

Avoiding public/private biases

Adopting a uniform approach to measuring concessionality would also allow for better comparability between private and public projects. For mitigation in particular, there should be no reason for the GCF to provide different concessionality to the same project whether it is implemented through a public arrangement or through a private one.

For example, a solar photovoltaic project can be implemented as a publicly-financed DBO project, or as a privately-financed IPP with a take-or-pay contract from a public off-taker. The mitigation impact is the same and the decision to choose one scheme over the other is merely a question of public finance and implementation efficiency: we see no reason for the GCF to favour one over the other. Measuring concessionality (and adopting standard impact calculation methodologies) would allow monitoring that GCF funds do not create such distortions.

E.2. PUBLIC-SECTOR PROJECTS/PROGRAMMES

Promoting a higher use of loan instruments

GCF resources would provide more leverage overall to public-sector projects if loan instruments were more frequently used for these projects.

In particular, the rationale for providing large grants, rather than concessional loans, to middle-income countries, could be reviewed. To avoid inequitable treatment of beneficiary countries, this requires increasing the level of objectivity in the determination of concessionality.

Designing a uniform approach to concessionality

The existing policy on financial terms and conditions raises two issues:

- The policy provides separate guidance for grants and for concessional loans, but does not indicate how to choose between these two instruments;
- Two types of concessional loans are precisely defined with two sets of parameters, but there is no guidance as to how they should be selected and used, except the general guiding principles of decision B.05/07[24].

Moreover, the Board has recently given more flexibility to determine terms and conditions of concessional loans. As was discussed in section C.1.3, this flexibility implicitly means that under the modified policy, the terms and conditions of financial instruments should not lead to a level of concessionality higher than the one defined for the highly concessional loans.

We believe that the level of concessionality of financial instruments should be the key parameter for the new policy on terms and conditions for public-sector projects. It should however be noted that what counts in a specific project is not the level of concessionality of a given instrument, but the level of concessionality of the GCF contribution: if a project receives a \$50 million-concessional loan with a level of concessionality of 40% and a \$5 million grant for technical assistance expenses, the \$55 million participation has an overall level of concessionality of 45.5%.

Defining a concessionality policy

The GCF policy should encompass all types of concessional financing (grants and concessional loans) for public-sector projects, and provide general principles guiding the determination of the

[24] We note that the Secretariat made a proposal to resolve these issues but that the proposal was not endorsed by the Board.

level of concessionality.

We recommend defining a limited number of levels of concessionality for the GCF participation in a project or programme. For instance, the policy could provide for three levels of concessionality (33%, 66% and 100%), and allow to tailor the type financial instruments and its exact terms and conditions to the specific needs of the project.

The policy could further indicate precise floors, caps or ranges of values which would help accredited entities in preparing projects aligned with the GCF requirements. In particular, we recommend setting a cap on the share of the project budgets financed by the GCF[25].

This cap could be higher for adaptation activities than for mitigation activities, and could be defined as follows:

- For all types of projects, the share of the project budget financed by the GCF should never exceed 80%;
- For revenue-generating activities, the share of the project budget financed by the GCF should never exceed 50%.

There could also be a differentiation between pure adaptation and "infrastructure resilience" projects, where GCF funds are an incentive to climate-proof a plain infrastructure investment that has larger economic benefits of its own: in this case, we recommend basing the discussion on concessionality with the accredited entity on the extra cost necessary to climate-proof the investment. This could also apply in some cases for mitigation purposes (energy efficiency component of a school programme for instance).

Setting specific criteria for accredited entities

A set of criteria could be defined to assess the concessionality of GCF instruments. The objective would not be to adopt a "one size fits all" approach, but to share an analysis framework with accredited entities, so that they know how the specific issue of concessionality will be evaluated by the GCF.

The criteria used for the level of concessionality would not have to be the same as the general criteria used in the investment framework since these two sets of criteria do not relate to the same issues, although they would surely have to be consistent. They would also need to be SMART (Specific, Measurable, Assignable, Realistic, Time-Related), which does not mean that they have to be quantitative, since a qualitative criterion can be SMART if it is well-defined and if it can be rated or categorized along a qualitative scale.

An example of criteria that could be used to determine the level of concessionality has been proposed in section C.4.1 with the country and project indicators (see Figure 9). More specifically, we think that the criteria that must be considered are the following:

- Country-related criteria:

[25] The combination of both sets of rules in important since the same grant-element can be extended to a project by lowering concessionality and increasing the face value of the instrument.

  - For most MDBs, **country macro characteristics** (GDP, poverty and indebtedness) are the key determinant of concessionality and instrument choice. MDBs, like the GCF, target a wider and more diverse set of project types and sizes than other existing climate funds. The latest Development Aid Committee (DAC) guidelines of the OECD also require Official Development Assistance (ODA) providers to provide higher concessionality to lower-income, more debt-stressed countries.
  - The **vulnerability** of the recipient, provided an exact list of vulnerable countries is agreed upon.

- Project-related criteria:
  - The **project theme** since adaptation activities should in general attract more concessionality than mitigation activity.
  - **Key indicators** could also be used in the determination of concessionality (GHG emission reduction for instance).
  - The **level of concessionality of cofinanciers resources** could also be one of the main parameters in the determination of the GCF concessionality. We noticed during our review that the level of concessionality of cofinanciers resources were not easily available, and was not discussed or justified in the funding proposals. The level of concessionality necessary for the project to be viable, and the exact repartition of this concessionality between the GCF and the cofinanciers should be discussed from the concept stage.

We recommend that the policy indicate the criteria to be considered and their general definitions, and that the guidelines give more specific guidance on how these criteria are used to determine the level of concessionality.

E.3. PRIVATE-SECTOR PROJECTS/PROGRAMMES

Keeping a case-by-case approach

In line with all DFIs engaging with the private sector, we recommend keeping a case-by-case approach for private-sector projects.

Differentiate the level of scrutiny required on concessionality between pilots, scale-up and one-off FPs

Pilots, especially for very innovative approaches or in very risky markets, may not need a very stringent review of concessionality. Scale-up FPs offer the opportunity to size the required concessionality precisely based on the results of the pilot.

Large one-off programmatic proposals risk preventing a detailed determination of the additionality required (which is possible in scale-up projects) but not be limited in size like pilots. Therefore, we recommend phasing large one-off proposals to enable the same virtuous cycle of testing the approach with high concessionality, and adjusting what is really needed based on the pilot's results.

The Board could incentivize this for AEs by creating a dedicated scale-up FP mechanism: the review and approval process would be lighter (for example, on a no-objection basis) if the programme is a scale-up is based on a pilot previously approved by the GCF and the Secretariat has assessed that lessons from the pilot have adequately informed the design of the scale-up.

Transfer concessionality equitably and efficiently in a country-wide RE/EE programme

Concessionality transfer issues in a country-wide RE/EE programme.

It is obvious that lowering the kWh price of renewable energy is a use of concessionality that in principle meets GCF objectives. However, to make the best use of its limited public funds, the GCF Board has required that such use be as efficient as possible.

Two of the approved FPs, one with the IDB in Argentina and the other with the EBRD in Egypt, focus on a specific market for which the Government has a clearly-identified tendering programme. Both programmes allow the respective AE to offer a GCF concessional senior loan product alongside their own commercially-priced senior loan product to support the financing of RE projects.

We believe that the process through which the level of concessionality is set in such instruments suffers from several risks:

- Unfair distortion: The risk of unjustified intra-market distortion (i.e. providing some projects or some developers with a larger cost incentive than others, in a way that is not related to their mitigation impact)

- Concessionality capture: The risk that GCF concessionality does not fully transfer into cost incentives (i.e. does not entirely serve to lower the kWh price of RE)

Both the Argentina and the Egypt FPs leave it to the AE to determine each individual project's level of concessionality, with a maximum defined by a spread floor. With the exception incentives for better treatment of specific populations (e.g. women)[26].

Assuming there are identified in-market efficiency distortions that would need to be corrected, it would be a very difficult exercise for a national regulator to determine the exact variation in concessionality needed to correct that distortion. We do not see why any DFI project team would have a better capacity to do so, and we fail to understand the purpose, in the term sheets, of leaving the amount of GCF concessionality as a DFI-set variable in individual projects – even more so without details on the criteria to assess "minimum concessionality".

Further, depending in particular on the process and timing under which the level of concessionality is set, and the more or less transparent knowledge on the market about the available concessionality, there are significant risks that part of the concessionality would be captured and not serve as a cost or profit incentive to increase the share of renewable energy

[26] In the same country (more exactly, in the same electrical network), we do not see what would justify providing differentiated capital pricing to RE energy projects using similar technology. Economic theory certainly does not justify it.

in the country[27].

The box below provides for case-study evidence that this can happen.

Does concessionality flow through? Lessons from a recent experience

In 2016, Nodalis was retained by a private investor as financial advisor for a bid to design, finance, build and operate a large renewable energy project in a low-income country. As part of our mandate, we held discussions with a wide range of DFIs to identify the best available senior debt terms & conditions for the proposed project. Some but not all consulted DFIs had access to more or less concessional sources of finance to complement their own, commercially-priced senior debt. No single institution was capable of providing 100% of the required senior debt and all would need to enter into some form of syndication with other DFIs.

The results of these discussions can be summarized in the table below, where DFIs are grouped in three categories (anonymized for confidentiality reasons). DFIs within each category proposed similar indicative spreads and one or several in the group had access to a specific source or sources of concessional funds. Again, for confidentiality reasons, we are not disclosing the absolute spread amounts, but we indicate the spread variation as compared to the lowest commercially-priced spread.

DFI groups	Group 1 DFIs A & B	Group 2 DFIs C & D	Group 3 DFI E + syndication
Commercial tranches			
Amount as a portion of total senior debt	100%	68%	68%
Spread delta (bps) The reference is the lowest commercial spread (lenders A&B)	0	+130	+130
Concessional tranches			
Amount (concessional 1)		20% (DFI C-executed climate fund)	32% (DFI E-executed climate fund)
Spread delta (bps)		-270	-370
Amount (concessional 2)		12% (DFI D own sources)	
Spread delta (bps)		-70	
Blended result			
Upfront fee	100	125	150
Commitment fee	100	75	150
Average spread delta	0	+26	-30

[27] the mechanism by which capture would happen differ whether we are in a feed-in tariff system or a reverse auction system, but the end result is similar

The table above evidences that unlike what happens in a commodity market, the notion of reference "commercial market conditions" is elusive in many GCF geographies, all the more so if the project type is new for the country. It was particularly striking that DFIs offering access to concessional sources had a much higher own "commercial" spread compared to others[28].

If the cheapest concessional source (in group 3) had not been "tied" to a specific DFI but available independently to all DFIs active in the market, then we believe it likely that such concessionality could have been matched to the cheapest available senior debt source (in group 1). This would result in more fully transferring the available concessionality into a significantly lower kWh bid price, instead of seeing 75% of it absorbed by a higher commercial margin.

Finally, while we also consulted private commercial banks, none is included in the table above: either they could not meet our tenor requirements or would require country risk insurance that rendered their terms prohibitive. We see leverage opportunities for the GCF in de-risking and tenor-extension products.

Recommendations

– In a given country for a given market, and unless strong sector-level justifications are provided, we recommend avoiding case-by-case differentiation of concessionality granted, which risks distorting the market and ultimately foster inefficiencies. We find this risk higher than the risk of "wasting" GCF concessionality.

– For projects that already function in this mode, the GCF should request periodic portfolio analysis, showing GCF senior debt pricing, co-financiers senior debt pricing, other instruments and equity pricing, together with the justification of the rationale for differences in the pricing of the GCF's and others' instruments.

– For new FPs, for a given instrument (e.g., senior debt) the GCF should provide consistent concessionality in its T&Cs to all projects with the same technology in the same electrical network. In addition, this concessionality should be accessible through several AEs to foster competition and ensure the concessionality is transferred down by AEs.

Incentivise AEs to set up internal concessionality review mechanisms

The IFC has been at the forefront of setting up an independent "Concessionality Committee" that functions very much like a Credit Committee. This approach seems interesting and a donor working group exists on the topic. The GCF could incentivize adopting such internal concessionality review mechanisms either through the GCF approval process, in the AMA or through its Terms and Conditions (see section D.2 for details on IFC mechanism).

[1,28] These spreads would likely have changed if the project had gone to final due diligence and financial close, but we believe that improvements would not have amounted to full concessionality flow-through.

E.4. RECOMMENDATIONS FOR FUTURE REVIEWS

Principle

The GCF activity will undoubtedly keep growing in the next few years. As of May 15th, 2017, the pipeline comprised of 58 projects and programmes representing a total amount of USD 3.4 billion. Moreover, only 14 funding activity agreements had been concluded at the outset of this review, and the amount actually disbursed on these projects was very low, which means that it was not possible to draw lessons from actual project results.

It is therefore very likely that the GCF will have to keep adjusting policies over the next few years, and that a periodic review would be necessary to inform such adjustments.

Periodicity

If a new policy regarding the terms and conditions of the GCF's financial instruments is adopted following this review, we think that the GCF should leave some time to observe the changes it would induce. In that sense, we believe that an annual review would not necessarily be adequate. The GCF could for instance have a review conducted every other year.

Methodology

Considering the fast-changing context of the GCF, and staff constraints, and to maintain an external viewpoint, the review should be performed by an external consultant. However, a material and time-consuming part of the present review was to compile data from the GCF documentation on terms and conditions.

We would thus recommend establishing a database of approved financial terms and conditions and concessionality granted to the projects and programmes, both in the public-sector and in the private sector, to reduce costly data compilation work from the consultants in charge of future reviews. This would likely be useful for many other purposes.

The terms of reference of the next review should include the following instructions:

– Undertake a basic compliance review of all funding proposals approved by the Board from its 18th meeting (this compliance would be ideally based on the GCF database of terms and conditions).

– Carry out a pattern analysis of approved projects and programmes, with a special focus on private-sector projects (the GCF policy would still be based on a case-by-case approach for this type of projects).

– In addition to reviewing newly approved FPs, the review should start including lessons learnt from projects that have reached at least mid-term, using the mid-term reviews that most DFI AEs perform. This part of the review would be especially useful to assess the real impacts of the concessionality granted by the GCF.

- In particular, the review should include an analysis of concessionality effectively granted to approved sub-projects in large private sector programmes where the AE is to determine sub-project concessionality on a case-by-case basis (the GCF should collect this information, see E.3).

- Develop a methodology to identify relevant case studies across the GCF portfolio (with a mix of projects under implementation and projects only approved by the Board), and conduct interviews with GCF staff and accredited entities. The approximate number of case studies the GCF wishes to consider could be indicated in the terms of reference.

- Analyse the GCF process review, in order to understand when the decisions on terms and conditions should be made, when they are actually made (based on the case studies), and make recommendations on how to improve this process.

Since the updated policy on terms and conditions will have taken stock of the review of other institutions' practices, it may not be warranted to undertake a full review of best practices in the next review.

Timing

The schedule of next reviews should be adjusted to allow for more consultations with accredited entities, and more interaction with the GCF Secretariat. We therefore believe that the consultant should have at least 3 months to execute the next review. We also think that it is essential that a workshop be conducted between the GCF Secretariat and the consultant in charge of the assignment early enough in the assignment.

F. LIST OF APPENDICES

- Appendix A: Contact details for review of best practices and case studies
- Appendix B: Methodologies for the evaluation of key indicators
- Appendix C: Detailed review of best practices
- Appendix D: Independent assessment of a selection of projects and comments on ITAP assessment

Appendix A Contact details for review of best practices and case studies

Contact details for case studies			Interviews	
Accredited entity	**Contact name**	**Contact details**	**Contact date**	**Meeting date**
UNDP	Lucas Black, Environmental Policy Advisor Global Environmental Finance Unit	lucas.black@undp.org Tel: +1 212 906 5842	19-Jul	3-Aug
EBRD	Craig Davies, Associate Director Marta Modelewska, Principal, Climate Resilience Investments	daviesc@ebrd.com modelewm@ebrd.com +44 (0) 20 7338 6000	18-Jul	28-Jul
World Bank Group	Takafumi Kadono, Senior Energy Specialist	tkadono@worldbank.org +65-6517-1240	19-Jul	16-Aug
AFD	Laurent Raspaud, Task Team Leader	raspaudl@afd.fr +33 (0)1 53 44 34 86	19-Jul	31-Jul
EIB	Mr Cyrille Arnould, Head of the GEEREF Front Office ("GFO")	c.arnould@eib.org +352 43 79 86 664	25-Jul	2-Aug
DBSA	Olympus Manthata, Investment Manager	OlympusM@DBSA.org +27 11 3135238	25-Jul	2-Aug
EBRD	Jan Willem van de Ven, Head of Policy and Climate Finance, Energy Efficiency and Climate Change team Harry Boyd Carpenter, Team director	VandeveJ@ebrd.com simonetm@ebrd.com +44 (0) 20 7338 7358 +44 (0) 20 7338 7259	25-Jul	Not conducted
CAF	Antonio García, Environment and Climate Change Executive	agarciap@caf.com +57 1 743 7369	27-Jul	17-Aug

Contact details for best practices				Interview
Organisation	**Recipients**	**Contact name**	**Contact details**	**Meeting date**
IDA/IBRD	Public	Karin SHEPARDSON	GEF Executive Coordinator kshepardson@worldbank.org +1 (202) 458-1398	21-Jul
		Brice QUESNEL	Lead Operations Officer, Trust Funds and Partner Relations (DFTPR) bquesnel@worldbank.org +1 (202) 458-9701	1-Aug
IFC	Private	Kruskaia SIERRA-ESCALANTE	Head, Blended Finance for Climate ksierraescalante@ifc.org	27-Jul
		Joyita MUKHERJEE	Senior Operations Officer JMukherjee1@ifc.org	27-Jul
AFD	Public	Audrey ROJKOFF	Senior Climate Change Expert and GCF Coordinator rojkoffa@afd.fr +33 1 53 44 61 77	21-Jul
FFEM	Public	Dominique RICHARD	Chargé de projets Climat & Energie richardd@afd.fr +33 1 53 44 37 65	31-Jul
Proparco	Private	Claire BRASSART	Blended Finance and Partnerships Officer +33 (0)1 53 44 61 14 brassartc@proparco.fr	18-Jul
		Sébastien FLEURY	Directeur adjoint des opérations fleurys@proparco.f	18-Jul
Climate Investment Funds	Public and Private	Christopher HEAD	Private sector specialist chead@worldbank.org +1 (202) 458-2776	17-Aug
Global Environment Facility	Public and Private	Henry SALAZAR	Senior Operations Officer hsalazar@thegef.org +1(202) 473-8226	16-Aug

Appendix B Methodologies for the evaluation of key indicators

This appendix aims at giving examples of methodologies to assess investment criteria, and measure key result indicators, such as GHG emission reductions.

The following table gives an overview of potentially interesting methodologies for the GCF, and the rest of the appendix focus on a specific example of methodology to assess and measure key indicators.

Criteria	Sub-criteria	Methodology	Source
Impact/result potential	Mitigation core indicator	IPCCC guidelines (2006)	*http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/0_Overview/V0_1_Overview.pdf*
Impact/result potential	Adaptation core indicator	The adaptation fund	*http://www.nema.go.ke/images/Docs/AF%20downloads/AF%20Core%20Indicator%20Methodologies.pdf*
Paradigm shift potential	All	NAMA Facility	*http://www.nama-facility.org/fileadmin/user_upload/publications/documents/2015-11_doc_nama-facility_nsp-guidance.pdf*
Paradigm shift potential	Potential for scaling-up and replication	WRI (GCF readiness programme of UNDP)	*http://www.gcfreadinessprogramme.org/sites/default/files/Assessing%20Scaling%20Potential%20Tool%20and%20Guidance%20.pdf*
Sustainable development potential	All	Japanese Ministry of Environment	*https://www.env.go.jp/en/earth/cc/manual_qecba.pdf in compliance with the UNFCCC international agreements*

An example: the NAMA Facility methodology to assess similar criteria[29]

The NAMA Facility was established in 2012 as a joint funding support structure financed by Germany, Denmark, the European Commission and the UK to support developing countries in implementing ambitious NAMAs. Its 4th call has provided up to 59 million euros support for NAMAs.

[29] Source: *http://www.nama-facility.org/fileadmin/user_upload/publications/documents/2015-11_doc_nama-facility_nsp-guidance.pdf*

The NAMA Facility has defined 5 mandatory core indicators, of which 3 are similar to the GCF evaluation criteria:

NAMA Facility core criteria	Similar CGF criteria
1. Reduced GHG emissions	Impact / Mitigation core indicator
2. Number of people directly benefiting from NAMA Support Projects	Impact / Adaptation core indicator
3. Degree to which the supported activities are likely to catalyse impacts beyond the NAMA Support Projects (potential for scaling up, replication and transformation)	Paradigm shift potential / Potential for scaling-up and replication
4. Volume of public finance mobilised for low-carbon investment and development	n/a
5. Volume of private finance mobilised for low-carbon investment and development	n/a

The methodologies used to evaluate these criteria are hereafter further detailed.

Criteria 1: Reduced GHG emissions

- This criterion considers activities that do not result in GHG reductions. It nevertheless focuses on reductions achieved only during the project lifetime and emissions calculated shall be directly caused from the project activities.
- For this criterion, the NAMA Facility guidance defines precisely what is intended by Greenhouse gas, by Carbon dioxyde equivalents, emission intensity factors and the global scope of this criteria (i.e. direct GHG emission reductions achieved by project investments). It also defines the unit of measurement.
- A further disaggregation of the indicator is also presented, including 7 points: 2 are related to tonnes of CO_2 reduced, 2 others to a forecast of remaining emissions, and 3 are related to carbon credits.
- The methodology itself also defines concepts that will be used when descripting the indicator, i.e. the baseline, the target setting and the calculation method. Regarding the calculation method, the NAMA Facility does not impose one methodology but recommends using the GHG Protocol Policy and Action Standard (http://www.ghgprotocol.org) while accepting other methodologies (for example from the Clean Development Mechanism).
- Finally, the NAMA Facility details what data should be used, the needs for quality assurance, the time period and frequency of these calculations, and the way to report and document the criteria.
- This very detail presentation of criteria #1 is followed by 2 examples: one in the renewable energy sector and one from the transport sector.

Criteria 2: Number of people directly benefiting from NAMA Support Projects

- This criterion insists on the necessity to affect people directly. However, this number is not a criterion itself as it cannot be compared to other figures presented by other funding applications. A mere qualitative assessment of this criteria is therefore to be conducted. Negative consequences of the project implementation should also be considered.

- The guidance starts by defining important concepts used here like 'people', 'directly supported', or 'benefiting'. A further disaggregation is also detailed by relevant type of benefits, by gender and by period.

- The NAMA Facility details what data should be used, the needs for quality assurance, the time period and frequency of these calculations, and the way to report and document the criteria.

- This very detailed presentation of criteria #2 is followed by several examples according to the type of activities implemented by a project (capacity-building actions, new infrastructure, new economic activity, etc.).

Criteria 3. Degree to which the supported activities are likely to catalyse impacts beyond the NAMA Support Projects (potential for scaling up, replication and transformation)

- The NAMA Facility methodology breaks down the transformational change criterion into 3 dimensions: direction (low-carbon economy or climate-resilient development); process (methods and approaches selected); and depth (structural changes).

- The guidance starts by defining what is a transformational change by listing 6 result categories, of which each applicant should pursue at least 2 (for example, replicability). The applicant needs to highlight the direct causal relationship between the results and the involvement of the NAMA Facility.

- The Facility has set up a ranking system, from 0 to 4 (from achievement unlikely to target achieved) as well as a scale (from transformation unlikely to clear evidence of change) to assess the potential for change. The overall methodology to present this criterion is based on the results categories and this ranking system.

- As for the others, 2 examples are given: one on GHG reporting schemes, and one on vehicle taxation system.

Appendix C Detailed review of best practices

GLOBAL ENVIRONMENT FACILITY

Scope

The GEF provides funding to assist developing countries in meeting the objectives of international environmental conventions. The GEF serves as "financial mechanism" to five conventions, which are Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), Stockholm Convention on Persistent Organic Pollutants (POPs), UN Convention to Combat Desertification (UNCCD), and Minamata Convention on Mercury.

The conventions, for which the GEF serve as financial mechanism, provide broad strategic guidance to the GEF. The GEF Council converts this broad guidance into operational criteria (guidelines) for GEF projects.

The GEF has five focal areas: biological diversity, climate change, international waters, land degradation (primarily desertification and deforestation), ozone layer depletion, and persistent organic pollutants.

Project cycle

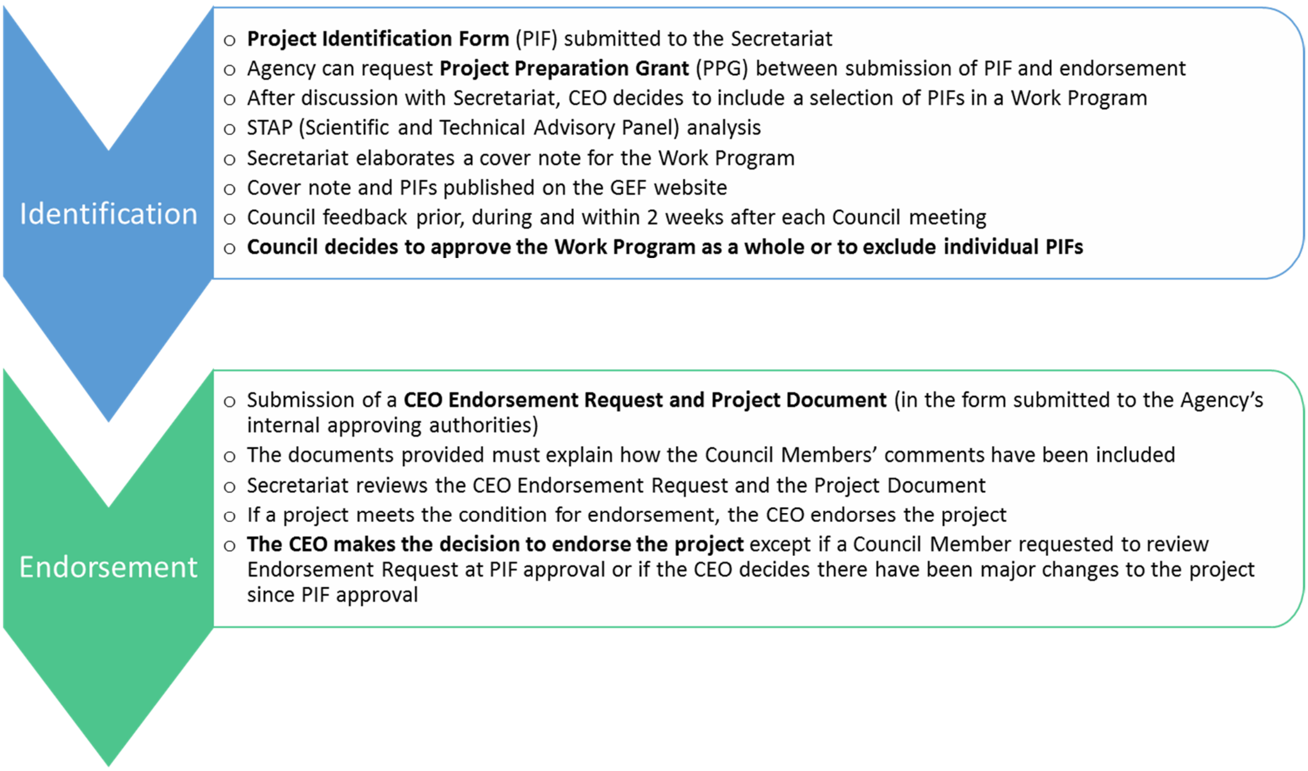


Figure 14: GEF - Project cycle for FSPs

The project cycle for GEF projects depends on the exact nature of the project:

– Full-Sized Projects (FSPs): More than $2 million;

– Medium-Sized Projects (MSPs): Up to $2 million;

– Enabling Activities (EAs): Up to $1 million;

– Programmatic Approaches (PAs).

The process described in Figure 14 is the process that GEF Agencies must go through before a FSP is formally approved by the GEF, which is the case in which the Council is most involved in the process.

In a nutshell, a formal Council approval is only necessary at the identification stage. The STAP and the Council review the Project Identification Document, and the CEO then has full responsibility to ensure that their comments are taken into account at the endorsement stage, and to evaluate if another council approval is necessary before approving the project.

Financial terms and conditions

One of the GEF general requirements is that co-financing is mandatory for all GEF full-sized and medium-sized projects and programmatic approaches (PAs). The ambition is to have a co-financing ratio of at least 6:1 for the overall GCF portfolio under the GEF-6 cycle.

The GEF has almost exclusively provided grants since it started its operations. From the pilot phase to the GEF-5 replenishment phase, the total amount extended by the GEF through non-grant instruments was $715 million, compared to more than $16 billion of total contribution[30].

Since grants are the standard tool of GEF intervention, there are no formal criteria to determine whether to use grants or other instruments. Given the GEF focus on pilots and enabling activities, grant sizes are determined based on a specific analysis of the barriers to be removed.

A programming exercise conducted jointly by the Secretariat and the Agencies ensures a certain level of equity in the apportionment of available resources between countries.

To develop the pilot non-grant program in GEF-6, the GEF Council adopted a policy for Non-Grant instruments.[31] For financial terms and conditions, the policy provides as follows:

– **For private sector recipients**, the Partner Agency must negotiate a financial rate of return consistent with a set of principles:

  - Ensuring a minimum level of concessionality;
  - Avoiding displacing other finance;

[30] GEF/C.47/06 - GEF-6 NON-GRANT INSTRUMENT PILOT AND UPDATED POLICY FOR NON-GRANT INSTRUMENTS
[31] The GCF Secretariat included a review of that policy in Document GCF/B.09/08.

- Catalysing other investments;
- A maximum maturity of 20 years;
- A flexible exit date for equity investments.

– **For loans extended to public-sector recipients**, the policy sets two concessionality levels, the softer loan being used for LDCs and SIDS:

GEF concessional loans	Maturity (years)	Grace period (years)	Annual principal repayment	Annual principal repayment	Interest
To LDCs and SIDS	40	10	2%	4%	0,25%
To other countries	20	10	10%	N/A	0,75%

The GEF calculated that the grant element for concessional loans for the softer conditions is approximately 75% while it is approximately 45% for the harder conditions[32].

CLEAN TECHNOLOGY FUND

Scope

The Clean Technology Fund is a Climate Investment Funds program helping developing and emerging economies to scale up carbon technologies in different sectors such as renewable energy, energy efficiency and clean transport for long-term greenhouse gas emissions savings.

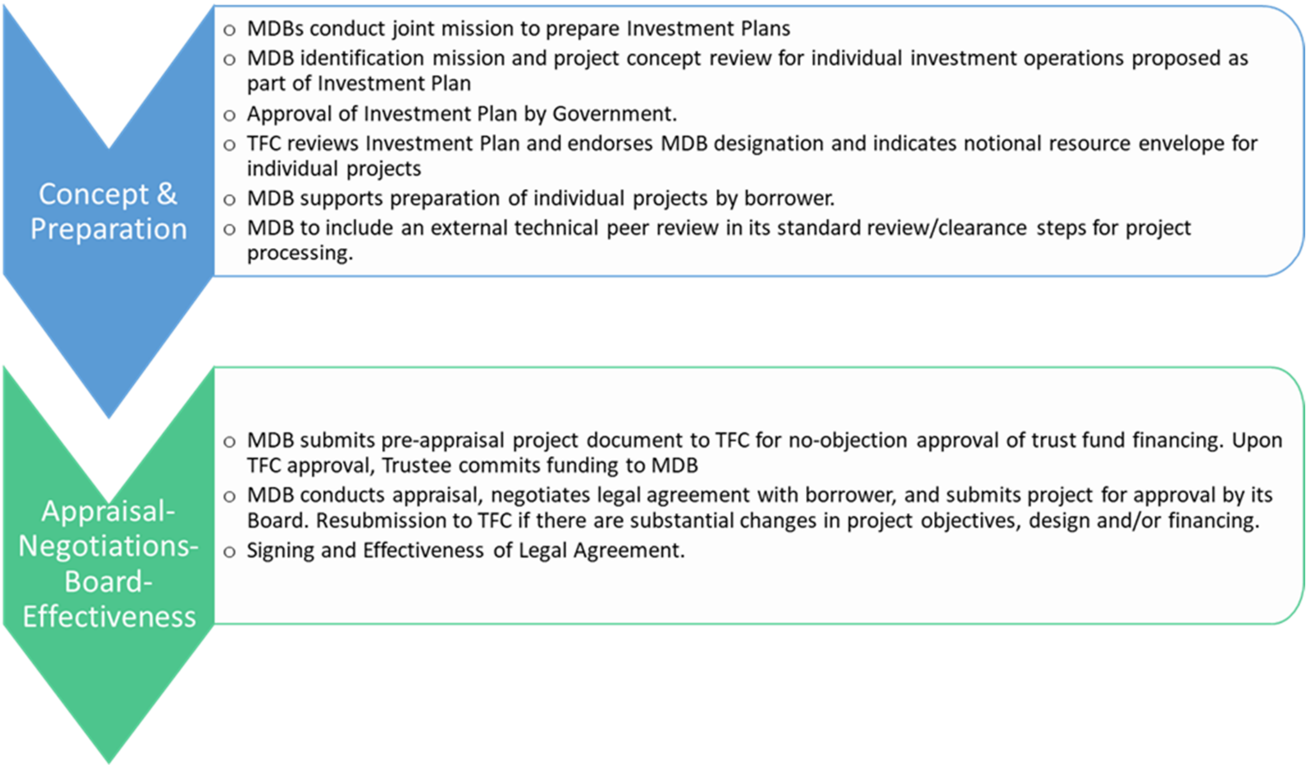
Over the total of US$ 5.8 billion (including US$ 491 million dedicated to private sector program), approximately US$ 3.8 billion is approved and under implementation in clean technologies which is expected to lead to 1.5 billion tons of CO_2 avoided.

Project cycle

The figure below represents the business process flowchart for Clean Technology Fund Operations. The TFC is the Technology Fund Council and MDBs stand for Multilateral Development Banks which correspond to the GCF accredited entities.

The main differences with the GCF are that national investment plans are prepared by MDBs and submitted to the GEF. The TF Council therefore endorses a national programme prepared by a multilateral development bank. The second step is a TFC approval on a no-objection basis of projects developed at a pre-appraisal stage.

[32] *"Grant element is calculated using the IDA methodology assuming semi-annual repayments, and 8-year disbursement period, and 6.43% and 6.33% discount rate for softer and harder concessional loans, respectively".*



Financial terms and conditions

In the public sector, grants are allowed for projects components with very high additional costs and significant risks when addressing low carbon projects or programs. Grant financing is considered in a case-by-case basis depending on the assessment of the justification for grant financing and the availability of grant funding from other sources, such as GEF.

CTF loan products aim to fill the investment gap in projects and programs that contribute to the demonstration, deployment and transfer of low carbon technologies. Their concessionality is determined in relation to the additional costs and risks of such deployment. The concessional loan contains a grant element which is defined as the difference between the loan's face value and the present value of debt service flows. The CTF loan ranks on par with the accredited MDB loan and benefits from the same security and collateralization.

The CTF has adopted uniform terms for its loan financing instruments: pricing and conditions do not depend on country or project. It offers two loan products, based on the financial internal rate of return of the project before CTF co-financing:

- "Harder" concessional loans for projects with rates of return near or above normal market threshold, but:
  - below risk premium for project type, technology or country
  - when acceleration in deploying the low carbon technology will have opportunity costs
- Softer concessional loans for projects with:

- Negative rates of return
- Rates of return below normal market threshold

CTF loans	Maturity (years)	Grace period (years)	Principal repayments Years 11 – 20	Principal repayments Years 20 – 40	MDB fee	Service charge	Grant element
Harder Concessional	20	10	10%	N/A	0.18%	0.75%	45%
Softer Concessional	40	10	2%	4%	0.18%	0.25%	75%

Guarantees can also be used to mitigate additional risks of low carbon projects. For each CTF operation, the accredited MDB assesses whether guarantee instruments can help mobilize adequate capital for the project. Public-sector guarantees from the CTF have the following terms:

	Loan Guarantees	Contingent Finance
Guarantor	MDB	MDB
Guarantee Beneficiary	Commercially-run institutions providing debt	Project entity
Guarantee Debt	Any form of debt instrument	N/A
Guarantee charge	0.1% per annum of the disbursed and outstanding amounts of the guaranteed financing	0.1% per annum of the committed and undisbursed balance of the contingent finance

For the **private sector**, CTF funds target three types of players: project sponsors, investors in climate-mitigating projects, and financial intermediaries developing new lines of credit for climate change investments. CTF financing is structured in a case-by-case basis to target the specific barriers related to the three key parameters: the country, the sector and the project.

In general, the MDB is required to assess the minimum concessionality needed to catalyze projects and programs while avoiding market distortion and crowding out.

CTF financing to the private sector may take any form in a wide variety of instruments to overcome the barriers that prevent transformation. The list below gives some examples of those instruments:

- Loans at concessional interest and loans with performance incentives;
- Subordinated Debt and Mezzanine Finance (to senior debtors which may, or may not include the MDB);
- Guarantees and Insurance;

– Risk sharing;

– Equity.

Unlike the public sector, financing products in the private sector are customized to each project. The financing product depends on a large set of investment criteria (cost effectiveness, development impact, additional costs and risk premium, financial sustainability, effective utilization of concessional finance, mitigation of market distortions…). The Dedicated Private Sector Programs were launched in 2013. To date, US$ 465 million had been allocated under the thematic areas mentioned above.

INTERNATIONAL DEVELOPMENT ASSOCIATION

Scope

The IDA is part of the World Bank Group and only provides sovereign, concessional financing to countries not eligible to borrow at IBRD terms. IDA funds are managed by the IBRD and provided through the IBRD only, following IBRD processes. IDA funds can be used for any of the IBRD sectors of intervention, using any of the IBRD project types:

– Investment Project Financing, provided through loans, grants or guarantees to governments to finance a specific physical or social infrastructure;

– Development Policy Financing, to provide budget support to governments in the development of a specific policy or programme;

– Results-Based Financing (Program For results), which focuses on a national programme and links disbursement with the results obtained by the government on a specific set of activities of this programme.

Country allocation principles

The total amount of IDA concessionality available to a given country is a result of two parameters:

– The country's IDA envelope in each IDA round,

– The country's classification which in turn determines the type of financial instrument it can access.

The International Development Association Partners meet every three years (an IDA round) to replenish IDA funds and review IDA's policies. The last meeting was held in Yogyakarta, Indonesia from December 14 to 15, 2016 and secured an amount of Special Drawing Rights (SDR) 53,5 billion to finance projects over the period July 2017 – June 2020.

The International Development Association allocates its resources basing mainly on countries' performances in implementing policies promoting economic growth and poverty reduction. There is an annual Country Policy and Institutional Assessment that rates the 95 eligible countries against a set of 16 criteria grouped in four clusters:

- Economic management;
- Structural policies;
- Policies for social inclusion and equity;
- Public sector management and institution.

In addition to the Country Performance Rating, the IDA focuses on portfolio performance, population and per capita income to determine global allocations per country. Furthermore, IDA Partners have placed the acceleration of economic and social development in Sub-Saharan Africa at the top of IDA priorities since the IDA16 Agreement: Sub-Saharan African countries have a priority in the allocation process.

Financial terms and conditions

Eligibility for IDA support is defined with a GNI per capita indicator which was $1,215 in fiscal year 2016, and 75 countries are currently eligible for this support.

The financial terms are determined with reference to recipients' risk of debt distress, the level of GNI per capita, and creditworthiness for IBRD borrowing:

- Recipients with a high risk of debt distress receive 100 percent of the IDA financial assistance in the form of grants;
- Recipients with a medium risk of debt distress receive 50 percent in the form of grants;
- Other recipients receive IDA credits on regular or blend and hard-terms with 38-year and 25-year maturities.

At the end of FY 2016, IDA total commitments amounted to USD 16.2 billion, with 12% provided with grants.

The International Development Association's current lending terms are less concessional for the economically advanced recipients to reflect their stronger financial capacity. All small island developing states are now also eligible to receive assistance on regular credit terms.

In the following tables which summarise summarizes IDA lending terms effective as of July 1, 2017[33], blend terms apply to blend countries, which are countries that have a limited eligibility to borrow from IBRD, and IDA countries with GNI per capita above the limit for more than two consecutive years ("gap countries").

33 http://ida.worldbank.org/sites/default/files/pdfs/ida_terms_effective_july_27_2017_updated_with_change_in_ibrd_fixed_spread.pdf

	Maturity	Grace period	Principal Repayments		Acceleration Clause
Grants	N/A	N/A	N/A	N/A	N/A
Small Economy	40	10	2% for yrs. 11-20	4% for yrs. 21-40	Yes
Regular	38	6	3.125% for yrs. 7-38		Yes
Blend	30	5	3.3% for yrs. 6-25	6.8% for yrs. 26-30	Yes
Guarantees	N/A	N/A	N/A	N/A	N/A
Non-concessional Financing	Maximum: Up to 35 yrs. Average: Up to 20 yrs.		Flexible		N/A

Fixed rates (FY18 Q1)	USD	EUR
Regular for small economy – service **(10-yr grace and 40-yr maturity)**	1.22%	0.75%
Regular for IDA only – service **(6-yr grace and 38-yr maturity)**	1.25%	0.75%
Blend - service	1.26%	0.75%
Blend - interest	1.36%	0.71%
Blend - total	2.62%	1.46%

ADAPTATION FUND

Scope

The Adaptation Fund was set up under the Kyoto Protocol and finances projects and programs in developing countries to adapt to the effects of climate change. The Adaptation Fund has committed US$ 438 million in 67 countries since 2010.

The World Bank serves a trustee of the AF on an interim basis. The fund is financed through three mechanisms: governments, private donors and the 2% share of Certified Emission Reductions (CERs) issued under the Protocol's Clean Development Mechanism projects.

Project cycle

Proposals may undergo either a one-step or two-steps approval process. In the first case, the proponent submits a fully developed project or program document. In the other case, the proponent submits a first conceptual document followed by a fully developed document.

The project documents are always submitted to the board through the secretariat. The secretariat performs a technical review basing on the criteria approved by the board and forward comments and requests for clarification to the implementing entities. The technical review is then submitted along with project documents to the Project and Programme Review Committee (at least 7 days before Board meeting) for an additional review. The PPRC gives its recommendation to the Board for a decision at the meeting. In case of a fully-developed study the Board can approve, not approve or reject the proposal and in case or conceptual studies, the Board can endorse, not endorse or reject the proposal. The endorsed concepts are invited to submit a fully developed proposal in the subsequent Board meeting.

Project/programme proposals shall be submitted at least 9 weeks before Board meeting to be considered by the Board at its next meeting.

Financial terms and conditions

The Adaptation Fund provides only grants. There are two main categories:

- Small-sized Project/Programme: proposals requesting grants up to $1 million.
- Regular Project/Programme: proposals requesting grants of more than 1$ million.

Programme grants are provided if the proposed Programme targets an outcome that is otherwise not achievable by a single Project. Projects under a Programme would have synergies in their objectives and implementation.

Appendix D Independent assessment of a selection of projects and comments on ITAP assessment

An independent assessment of 20 projects was undertaken to evaluate a representative sample of projects against the six criteria of the investment framework. The list of projects which have been considered is described at the end of this appendix.

In addition to the results already presented in section 0, and although it was not directly in the scope of our study, we performed a review of the way the Technical Panel appraised the investment criteria. The main findings of this review were the following:

- Local context:
  - Comment: Underestimated and lack of knowledge (FP21 or FP30).
  - Recommendation: Encourage TAP to pay attention to more detailed national/regional/local context of the project and/or to include local experts in the evaluation pool
- Disconnection between positive evaluation and project rating:
  - Comment: The evaluation sounds often very positive in the text, but then the project is rated 'medium' (FP 030 criteria 5, FP017 criteria 1, FP033 criteria 1). There is a clear tendency for 'medium' or 'medium-high' project ratings in most of the evaluation forms, and the ratings often do not clearly correspond to the content of the evaluation.
  - Recommendation: Give points for all criteria/sub-criteria. Project ratings would correspond to the overall points (e.g. 25-29 points: 'medium-high'; from 30 points: 'high'). This would facilitate the final evaluation by the board and make the project ratings more transparent.
- Criteria evaluation in general:
  - Comment: The evaluation of the five main criteria and their sub-criteria does not seem consistent. There is a tendency to evaluate each main criterion on the basis of only one sub-criterion, leaving the other sub-criteria aside. In addition, each evaluator seems to prioritize a different sub-criterion for his/her analysis. For example, criterion E.2 includes four sub-criteria. Many evaluations insist much more on the sub-criterion E.2.1 than on the other three sub-criteria.
  - Recommendation: If not all sub-criteria are weighted equally, both the applicants and the evaluators should be informed which sub-criteria are more important than others.

– Impact potential:

- Comment: Under criterion 1, the TAP often does not evaluate the potential impact of the project but rather whether the project will be able to be implemented successfully. Often, only the difficulty to implement the project is highlighted, and there is little discussion of the potential of the project to contribute to the achievement of the Fund's objectives and result areas.

  Impact is easier to assess for some types of projects than for others. For example, infrastructure projects yield a clear result, often substantiated by GHG emissions savings. The impact of scaled-up or follow-up projects (with demonstrated results of earlier projects) is also easier to evaluate. However, the impact of TA projects and new projects (e.g. FP17) with uncertain results is more difficult to assess. Projects establishing a fund are also disadvantaged as it is not clear which projects will be awarded by the new funds (FP06, FP014 where criterion 1 is evaluated 'low', FP29, FP38).

  In addition, the difficulty to evaluate the GHG emission calculations in many FPs adds to the complexity to assess impact.

- Recommendations: Evaluators should adjust the focus of their evaluation to put more emphasis on the potential impact of the project; create several project categories (e.g. infrastructure, TA, new projects, scaled-up or follow-up projects, projects setting up a fund) for which evaluation criteria could be adapted; encourage applicants to use the same methodology for GHG emission calculations

– Country ownership

- Comment: The criterion of country ownership is crucial to the success of a project: it should not be only a simple NOL. However, national/regional/local ownership seems often limited. One of the reasons is that AEs and not national actors develop the projects and submit the FPs. The link to INDC/NDC (or other national documents) in the FPs is in most cases quite weak (just 'in line with').

  The TAP analyses country ownership mainly in terms of the capacity of the actors to implement the project and reach the objectives. At the same time, the TAP considers that stakeholder ownership is crucial for the success of projects (FP01, FP03, FP07, FP16, FP41).

  The criterion of country ownership includes three sub-criteria: existence of national strategies, capacity of AEs, and engagement with stakeholders. To evaluate country ownership, the first and third sub-criteria seem more important than the second one on the capacity of AEs, since AEs have already been selected by the GCF as reliable partners (for a given type of project).

  Ownership is more difficult to achieve and assess for projects covering a variety of countries than for projects focusing on one specific microregion (FP06).

- Recommendation: As suggested above, a point system could facilitate the project rating. For example, for E.5, overall points could amount to 5, with 2 points each for sub-criterion 1 and 3, and with 1 point for sub-criterion 2.

– Comparison between evaluations

- Comment: Evaluations do not seem to be entirely consistent, most probably because different experts have assessed the FPs. If the final decision at the board level is taken by the same actors, this is not the case at the evaluation level. The analysis of 16 FP evaluations shows that different assessment grids have been used, with a different focus each time: one expert had more experience in finance, another expert on the region, still another one on the technical issues, etc.

- Recommendation: A more detailed assessment grid could lower the risk of a biased evaluation based mainly on each evaluator's strength. Involving various evaluators with relevant fields of expertise would be advisable. A mix of competences seems crucial for the global evaluation of a FP.

– Comparison of TAP recommendations

- Comment: The recommendations of the TAP do not seem consistent. This is probably due to the different experts involved in the evaluations. When the project rating is low, one would expect many recommendations, which is not always the case.

- Recommendation: Encourage TAP evaluators not only to explain why the rating is low but also to formulate comprehensive recommendations on possible improvements.

  Recommendations for improvement should: either (i) take place at concept stage (see recommendation to consider involving ITAP earlier) or (ii) at approval stage, remain recommendations and not conditions, unless the ITAP expert substantiates that they are critical to the FP's having substantial adaptation or mitigation impact.

– Content of evaluations:

- Comment: Several evaluations only concentrate on essential lines. They are very short and do not really go into details (FP21, FP33), leaving the impression that evaluations were conducted in a rush.

- Recommendation: We have understood from our discussions with the Secretariat that the TAP is already involved earlier in the latest projects. We would however recommend starting the evaluation process at the concept stage.

FP Réf.	Project name	Accredited entity (AE)	Country/ region	Project theme	Project type	Access modality	Project size
FP001	**Building the Resilience of Wetlands in the Province of Datem del Marañón, Peru**	PROFONANPE	Peru	Cross-cutting	Public	Direct	Micro
FP003	**Increasing the resilience of ecosystems and communities through the restoration of the productive bases of salinized lands**	CSE	Senegal	Adaptation	Public	Direct	Micro
FP006	**Energy Efficiency Green Bond in Latin America and the Caribbean**	IDB	LAC countries	Cross-cutting	Private	Intern.	Large
FP007	**Supporting vulnerable communities to manage climate change-induced water shortages**	UNDP	Maldives	Adaptation	Public	Intern.	Small
FP014	**Climate Adaptation and Mitigation Program for the Aral Sea Basin**	World Bank	Uzbekistan Tajikistan	Adaptation	Public	Intern.	Medium
FP016	**Strengthening the Resilience of Smallholder Farmers in the Dry Zone to Climate Variability and Extreme Events**	UNDP	Sri Lanka	Adaptation	Public	Intern.	Medium
FP017	**Climate Action Solar Energy Development Programme in the Tarapacá Region**	CAF	Chile	Mitigation	Private	Intern.	Large
FP020	**Sustainable Energy Facility for the Eastern Caribbean**	IDB	Eastern Caribbean	Mitigation	Public	Intern.	Medium
FP021	**FP021 Senegal Integrated Urban Flood Management**	AFD	Senegal	Adaptation	Public	Intern.	Medium

FP Réf.	Project name	Accredited entity (AE)	Country/ region	Project theme	Project type	Access modality	Project size
FP026	**Sustainable Landscapes in Eastern Madagascar**	EIB	Madagascar	Cross-cutting	Private	Intern.	Medium
FP027	**Universal Green Energy Access Programme - Multiple countries**	Deutsche Bank AG	Benin, Kenya, Namibia, Nigeria, United Republic of Tanzania	Mitigation	Private	Intern.	Large
FP029	**SCF Capital Solutions**	DBSA	South Africa	Cross-cutting	Private		Small
FP030	**Catalyzing private investment in sustainable energy in Argentina - Part 1**	IDB	Argentina	Mitigation	Private	Intern.	Large
FP033	**Accelerating the Transformational Shift to a Low-Carbon Economy in the Republic of Mauritius**	UNDP	Mauritius	Mitigation	Public	Intern.	Medium
FP035	**Climate Information Services for Resilient Development in Vanuatu**	SPRE	Vanuatu	Adaptation	Public	Direct	Small
FP038	**GEEREF NeXt**	EIB	GCF eligible countries	Mitigation	Private	Intern.	Large
FP039	**Egypt renewable financing framework**	EBRD	Egypt	Mitigation	Private	Intern.	Large
FP041	**Simiyu Climate Resilience Project**	KfW	Tanzania	Adaptation	Public	Intern.	Medium
FP043	**GCF-EBRD Saïss Water Conservation Project**	EBRD	Morocco	Adaptation	Public	Intern.	Medium
FP044	**Tina River Hydropower Development Project**	World Bank	Solomon Islands	Cross-cutting	Public	Intern.	Medium