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GCF/B.12/17

3 March 2016

Initial Risk Management Framework: Risk Register, Risk Appetite Update and Initial Risk Guidelines for Credit and Investment

Summary

This document presents three key elements of the overall risk management framework:

(a) A detailed risk register;

(b) An update on the process of risk appetite setting and other elements of the risk management framework; and

(c) Initial risk guidelines for credit and investments

Table of Contents

I. Introduction

1. The Board, through decision B.07/05, adopted the initial financial risk management framework of the Green Climate Fund (GCF), which included a financial risk monitoring and reporting management system to be developed by the time the Board would consider funding proposals (FPs) for approval. Additionally, the Board, through decision B.10/07, adopted the GCF' risk dashboard and requested the Secretariat, in consultation with the Risk Management Committee (RMC), to prepare a detailed risk register and to apply the GCF's risk appetite methodology to assist the Board in the process of establishing priorities, targets, tolerances and limits for the different categories and subcategories of the risk dashboard.

2. Furthermore, as the GCF's portfolio of projects and programmes develops, the Board may want to decide on certain initial risk guidelines for credit and investments to guide the day-to-day operations of the Secretariat with respect to its second level due diligence of FPs and the funding decision-making process of the Board.

3. This document presents thus three key elements of the overall risk management framework:

(a) A detailed risk register;

(b) An update on the process of risk appetite setting and other elements of the risk management framework; and

(c) Initial risk guidelines for credit and investments

II. Linkages with other documents

4. This document has linkages to the following documents:

(a) Document GCF/B.11/Inf.07 titled "Strategic plan for the Green Climate Fund (progress report)"; and

(b) Document GCF/B.11/04 titled "Consideration of funding proposals".

III. Possible action by the Board

5. The Board takes note of the progress in developing the GCF's risk appetite and may consider adopting the proposed risk register and initial risk guidelines for credit and investment as outlined in annex II and annex V respectively.

IV. Linkages with previous decisions

6. Decision B.07/05 established the initial financial risk management framework of the GCF, consisting of financial risk policies, a financial risk monitoring and reporting management system and financial risk governance arrangements. The financial risk policies were further elaborated through decision B.08/13 as part of the policies for contributions. Elements of the financial risk monitoring and reporting management system were defined through decision B.08/18 (financial reporting and the external auditing process) and decision B.BM-2015/06 (internal control framework).

7. Decision B.07/05 also requested the Secretariat to start the process of analysis to determine the risk appetite of the GCF. Through decision B.09/06, the Board took note of a survey of methodologies to define and determine the risk appetite and through decision

B.10/08 it adopted the risk dashboard, its related risk categories and subcategories, and the methodology to be followed by the GCF to set its risk appetite.

8. With respect to the risk guidelines for credit and investments, decision B.04/08 defined the principles guiding the operation of the Private Sector Facility (PSF). Decision B.05/07 established guiding principles and factors for determining terms of financial instruments. Decision B.07/06 defined the GCF's investment framework and decision B.08/12 noted that the use of a broad range of financial instruments is consistent with the GCF's investment framework.

V. Objective

9. The purpose of this document is to provide an overarching view of the progress in operationalizing risk management in the GCF, present the proposed risk register, discuss the progress made towards implementing the risk appetite methodology, and present a set of proposed initial risk guidelines for credit and investment.

10. This document is divided into the following three main sections:

(a) Description of the risk monitoring and reporting management system, including the risk register that is being presented for Board approval as part of the draft decision attached to this document (annex 1);

(b) Progress report on applying the methodology to set the risk appetite of the GCF; and

(c) Proposed initial risk guidelines for credit and investments.

VI. Risk monitoring and reporting management system

11. The risk monitoring and reporting management system includes standard control instruments (financial statements and external audit reports), a strategic risk planning tool (risk register), risk and portfolio oversight tools (risk dashboard and portfolio management system) and a methodology for periodic overall review of internal controls (self-evaluation through the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework).

6.1 Financial statements and external audit reports

12. The GCF reviewed the main accounting standards in use globally and decided to adopt the International Financial Reporting Standards. This decision was based, inter alia, on the fact that most jurisdictions are converging towards the International Financial Reporting Standards, thus its adoption by the GCF would facilitate the process of resource mobilization and resource deployment, as it would align the accounting of the GCF with those of its partners. The GCF has now put in place an internal accounting system to generate financial statements semi-annually using the International Financial Reporting Standards.

13. In March 2015, Daemyung Grant Thornton was appointed as the external auditor of the GCF for a period of three years. Their unqualified audit of the financial statements of the GCF was presented and approved by the Board at its eleventh meeting.

6.2 Risk register

14. **General definition.** A risk register is an inventory of all the risks to which an organization is exposed, the mechanisms in place to mitigate them and an assessment of their relative priority. For each risk, the following parameters are identified:

(a) Triggers: Key events[1] the occurrence of which could lead to the risk materializing;

(b) Mitigation: Mechanisms in place to reduce the probability of occurrence or reduce the impact of each type of risk if it were to materialize. Potential mitigation measures include policies, procedures, internal controls and analytical tools;

(c) Owner: Unit or individual within the organization responsible for managing each risk;

(d) Probability and impact: Assessment, based on empirical evidence, qualitative tools or expert judgement, of the likelihood of the risk materializing and, if the risk materializes, the overall impact on the organization taking into account the mitigation mechanisms in place;

(e) Priority: Relative importance to the organization of each risk based on the combination of probability of occurrence and impact; and

(f) Key risk indicator: Parameter used to measure the level of risk that materialized.

15. **Proposed approach**. The draft risk register being proposed for Board decision (annex II) presents the parameters described above for each risk category and subcategory in the risk dashboard approved by the Board at its tenth Meeting. Table 1 illustrates its structure taking as an example one of the risk subcategories, namely, **reputational risks** arising from business practices and results:

(a) The **risk category**, **subcategory** and **description** are those approved by the Board through decision B.10/08;

(b) Three potential situations have been identified as **triggers** which could lead to the materialization of this risk;

(c) **Mitigation** measures taken or under development in this case are as follows:

(d) Communications strategy, including outreach to external stakeholders regarding the activities and results achieved by the GCF;

(e) Manuals describing clearly all internal processes, including accreditation and second-level due diligence to ensure consistency of practices;

(f) Readiness programme to support the development of national designated authorities' capacity, including familiarizing them with GCF processes and results framework;

(g) Continuous dialogue with national stakeholders through activities organized by the Country Programming division;

(h) Financial management, including internal control processes to ensure adequate management of resources;

(i) Media monitoring to identify and allow an early response to external stakeholders adverse perception of the GCF; and

(j) Participation of observers at Board meetings as well as other types of outreach to civil society organizations to maximize transparency and understanding of the GCF;

[1] Given the inherent uncertainty of risks, this is a non-exhaustive list. The proposed risk register for the GCF identifies the top three potential triggers.

(k) Given the broad range of activities involved in mitigating this risk, the Executive Director, Directors, the Chief Financial Officer/DSS and the Risk Manager are the **owners** of this risk;

(l) The **probability** and **impact** for this risk subcategory has been estimated as "somewhat unlikely" and "somewhat disruptive" reflecting the overall medium level of likelihood and impact given the mitigation measures in place. This assessment will be refined on the basis of the simulation to be done as part of the process of establishing the risk appetite of the GCF;

(m) The **priority** is assigned using the priority grid approved by the Board as part of the risk dashboard (this grid is included at the end of annex II) and it is effectively the result of combining the probability and impact of occurrence as an ex ante estimation of the importance of such risks; and

(n) The key risk indicator for this risk, as it is the case for any type of reputational risk, is related to measuring media and other outside stakeholders' perception.

Table 1. Risk register illustrative example

Parameter	
Risk category	Reputational
Subcategory	Business practices and results (risk code: 2.1)
Description	Events or issues that have a materially adverse effect on the credibility of the GCF in developing countries or with contributors, accredited entities or civil society organizations. This includes the GCF being perceived as lacking added value, being over bureaucratic, not adhering to countries' priorities or managing its resources poorly
Triggers	2.1.1 Ineffective dissemination of results delivered by GCF-supported projects/programmes, including presenting added value with respect to other financial partners; 2.1.2 Overly complex procedures to access GCF funding or failure to communicate in simple language the steps to access such funding; and 2.1.3 Slow decision-making processes at the Board, Secretariat, accredited entity or country-levels.
Mitigation	Communications strategy (in progress), including the approach to disseminating results, internal processes manuals (in progress), readiness programme, accreditation process, Country Programming outreach, financial management processes of the GCF, media monitoring, participation of observers in Board meetings
Owner	Board, Executive Director, Directors and Chief Financial Officer/DSS
Probability	SU
Impact	SD
Priority	M
KRI	Percentage and number of negative media reports related to this risk subcategory (as opposed to positive and neutral); periodic survey of NDAs, AEs and observers

Abbreviations: AEs = accredited entities, KRI = key risk indicator, M = medium, NDAs = national designated authorities, SD = somewhat disruptive, SU = somewhat unlikely.

16. **Purpose and use of the risk register**. The risk register has two primary functions:

(a) To verify the existence of risk mitigation measures for each one of the risks the GCF faces. The identification of triggers (**what could lead to the materialization of the risk?**) informs the design of mitigation measures (**what could prevent those triggers from materializing the risk?**). Good mitigation measures must be aligned with the triggers to ensure that the GCF is seeking to control each one of the sources of risk; and

(b) To provide a framework to define the appetite with respect to each risk subcategory. The assessment of probability and impact of each risk along with simulations of different scenarios are key inputs to determine the risk appetite of the GCF as it is described below.

17. As described in decision B.07/05, the risk register is updated annually as the risk environment in which the GCF operates evolves as a result of external events, changes in the mix of instruments deployed by the GCF and other strategic priorities.

6.3 Portfolio risk oversight

18. A key component of the process of operationalizing the initial risk management framework is applying the GCF-wide risk dashboard to the review of individual projects to be supported by the GCF and to their monitoring and evaluation once they enter into the portfolio. Figure 1 shows the GCF project cycle. During the first stage (portfolio development), projects are assessed against the GCF policy framework and investment criteria and are considered by the Board for approval. In the second phase (portfolio management), the accredited entities (AEs) and the GCF oversee the performance of projects and upon completion, evaluate their results. This section discusses the risk analysis to be carried out at each one of these stages so as to ensure an adequate portfolio-wide risk oversight.

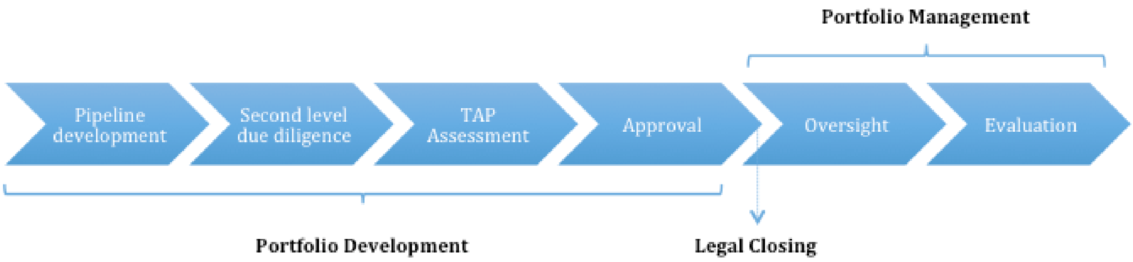


Figure 1. Green Climate Fund project cycle

6.3.2 Portfolio development

19. AEs working jointly with the national designated authorities/focal points have the primary responsibility for developing FPs. The GCF is responsible for ensuring that these FPs are structured in a manner consistent with the mandate of the GCF so that they can become part of the project pipeline. This is done through various mechanisms, including readiness programmes thorough national designated authorities/focal points to strengthen their capacity to ensure strong country ownership of FPs; continuous outreach and dialogue with the national designated authorities/focal points and AEs; and periodic issuance of requests for proposal to stimulate pipeline development of certain strategic characteristics. During this stage, the evolution of the GCF risk profile, as defined in the risk dashboard and risk register, will be used to inform the process of pipeline development. For example, an excessive concentration of the portfolio in a certain geographic area may require focusing efforts in order to increase the pipeline of projects in other regions to ensure a balanced portfolio.

20. As part of the second-level due diligence carried out by the Secretariat, it assesses the compliance of the proposed project with respect to GCF safeguards and policies. In this context, the Secretariat carries out a risk assessment of projects at the following two levels during this stage:

(a) Project-level risks: FP submitted by AEs list the main **risks to the projects** and the mitigating measures put in place to address each risk. Each AE can use its own typology of risks but they are expected to be generally related to the implementation, results and sustainability of the project. The Secretariat reviews the completeness of the list of risks identified and the expected effectiveness of the mitigation measures proposed as part of the project; and

(b) GCF-level risks: Additionally, the Secretariat assesses the **risks to the GCF** derived from the project. This is done by reviewing the impact that the project may have on the nine risk categories included in the risk dashboard.[2] This includes, for example, the impact that the project could have on increasing the risks related to the concentration of the portfolio or the financial risks that it generates to the GCF.

21. These two types of risk assessment are provided to the independent Technical Advisory Panel in order to assist their review with respect to the six investment criteria and it is also part of the documentation provided to the Board as it considers the project for approval. As part of the approval process, the Board may assign a new project to the special oversight category if given its risk characteristics, the project will require more frequent reporting from the AE and analysis by the GCF as part of its portfolio management functions as described below.

6.3.3 Portfolio management

22. Projects/programmes formally enter into the portfolio once they have been declared effective following the completion of all legal documentation after Board approval.[3] Oversight of the portfolio will be carried out through a dashboard the template of which is presented in annex 3. This dashboard will constitute the basic management and reporting tool covering the following three aspects:

(a) Description of the portfolio: Presents a snapshot of the portfolio, including the financial resources deployed (commitments and disbursements), distribution by region, programme type (adaptation, mitigation, cross-cutting), financial instrument, AE type, and financial risk. It also lists the top 10 projects by size as well as projects categorized as under special oversight if they have received a 'risk flag' if assessed as representing particularly high levels of risk to the GCF. An annex to the dashboard will present all GCF-funded projects;

(b) Risk dashboard: For each risk category and subcategory in the risk register, the risk dashboard presents the status of the key risk indicators and discusses significant variations from the risk targets to be defined as part of the risk appetite-setting process and presents actions taken when risk limits are surpassed; and

(c) Overall level of resources in the GCF: A full financial overview of the GCF is completed by presenting the evolution of cash flows combining cash available, expected inflows based on signed contributions and expected outflows based on the projected needs of the existing portfolio.

23. Financial data flows directly related to the GCF (e.g. payments from contributors, disbursements to AEs) will be updated on a quarterly basis. Overall risk assessments will be updated quarterly and data to be reported by AEs (e.g. project progress reports, disbursements to implementing entities) will be updated semi-annually. The Risk Manager, under the guidance of the RMC, will use the dashboard data to carry out semi-annually risk analyses of the portfolio as part of the process of risk reporting to the Board. As projects come to an end and they undergo a final evaluation, the Risk Manager is part of this process to review the risks materialized during the project, the effectiveness of mitigation measures, risks to the project's continued sustainability and lessons learned.

[2] The risk categories are: strategic, reputational, operational, legal, compliance, performance, funding, market and liquidity.

[3] Projects approved but not yet signed will be tracked separately and will be monitored to reflect that the commitment of resources for projects not yet effective represents an opportunity cost to the GCF.

6.4 Internal controls: Committee of Sponsoring Organizations of the Treadway Commission framework

24. Internal controls are an essential element of the governance, risk and compliance oversight responsibilities of the GCF. The Secretariat reviewed several internal control frameworks in use in major organization and, on the basis of such analysis, the Board adopted the COSO framework as the internal control framework for the GCF (decision B.BM-2015/06). The GCF is implementing this framework in its five components as follows:

(a) A strong **control environment** mandated by decisions of the Board and guidance received from the Executive Director;

(b) **Risk assessment** of the GCF operations, including through the implementation of all elements of the risk framework;

(c) **Control activities** put in place in the operations of the GCF. Daeyoung Accounting Corporation undertook an extensive internal audit of the GCF during March/April 2015 to assess the effectiveness of these activities. It reported that, based on their detailed audit work, no major control weaknesses or issues were noted;

(d) The financial statements and the dashboard mentioned above constitute critical elements of the **information** and **communication** framework that has been put in place to generate the data necessary to exercise effective internal controls; and

(e) Periodic **monitoring activities** to test the continued effectiveness of internal controls such as the one carried out earlier this year by an external firm.

25. The overall effectiveness of the framework is reviewed by carrying out a COSO self-assessment (CSA) of internal controls. CSA is a standard methodology that uses as a starting point a questionnaire that the organization's management responds to for each one of the five COSO components described in the previous paragraph. Based on the responses, a more in-depth analysis is done in order to identify control weaknesses and solutions to address them. The GCF will carry out its first CSA no later than the end of the second quarter of 2017. At that time, it is expected that the portfolio of the GCF would have reached a significant size allowing for more meaningful results from CSA.

VII. Progress on establishing the risk appetite of the Green Climate Fund

26. The Board, through decision B.10/08 adopted the methodology to establish the risk appetite of the GCF. Under guidance from the RMC, the Secretariat has developed the components of the methodology and is working with the RMC in the preparation of the proposed risk limits and overall appetite statement. Figure 2 summarizes the progress to date for each one of its components.

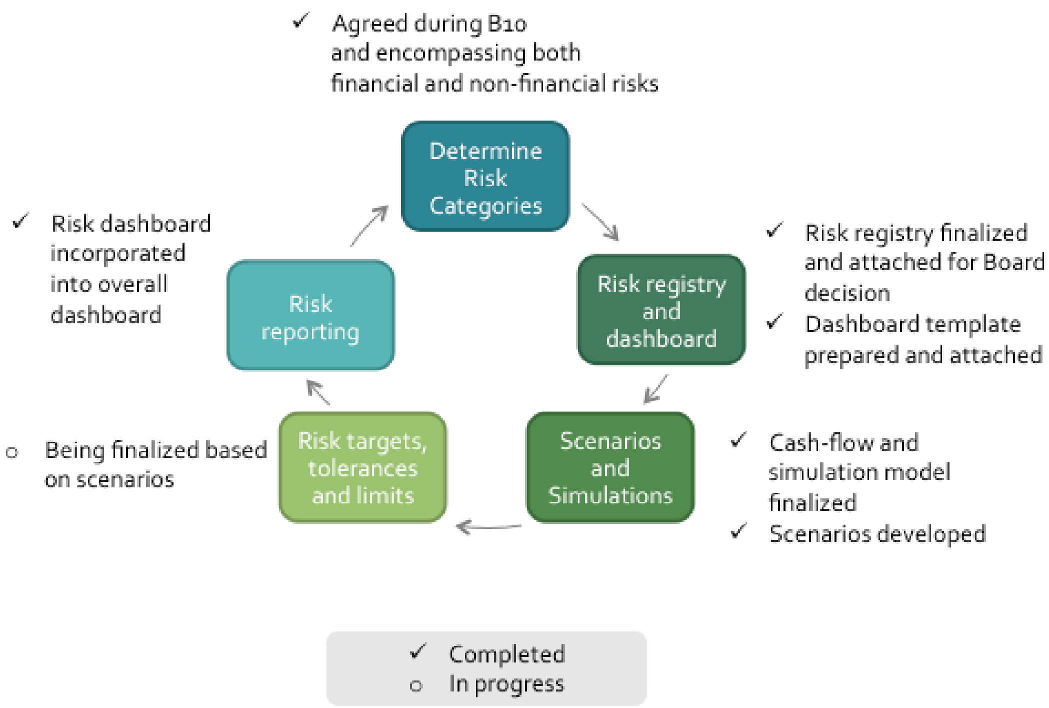


Figure 2. Green Climate Fund risk appetite – progress to date

27. With the proposed risk registry drafted, the GCF is currently developing a set of 'base' scenarios generated by financial and non-financial events that will be used to analyse scenarios and propose the target risk appetite for each risk subcategory in the registry. Ideally, the proposed scenarios should be based on empirical evidence with a relatively long-term horizon (e.g. 10 years) such as the historical variation in the price of a certain financial asset or the number of occurrences of a particular event. For a new organization without a track record, such as the GCF, alternative approaches are required and thus table 2 presents the rationale used to select each scenario. In choosing these events, the GCF has sought to ensure that they are both realistic and also significant (i.e. meaningful departures from what would be expected to be the normal operation of the GCF). In most cases, the rationale for each event uses an assumption anchored on a GCF policy parameter or historical information. In some cases, it has been necessary to estimate a hypothetical, but possible, scenario.

Table 2. Draft scenarios for risk appetite simulations

Event	Rationale
Non-financial events	
The GCF has a moderate impact on climate change adaptation and mitigation.	Paragraph 2 of the Governing Instrument for the GCF mandates the GCF to "promote the paradigm shift towards low-emission and climate-resilient development pathways"; having only a moderate impact could be considered as an event in which the GCF fails to fulfil such a mandate.
Failure of the GCF to fulfill its gender policy, with only 25 per cent of projects, including specific gender elements and gender-sensitive implementation arrangements.	While the GCF does not have a specific target, 25 per cent would be a level well below that of other comparable organizations.
High concentration of accredited entities (AEs): six AEs disburse 90 per cent of resources.	Such a concentration seeks to illustrate a scenario in which a small number of international access AEs take up most of the resources.
Adaptation is only 25 per cent of the portfolio.	Mid-point to the target of 50 per cent.

Event	Rationale
Major misuse of funds in the GCF projects carried out by direct access AEs.	Test mitigation measures for risks associated with direct access AEs.
Impasse at the meeting of the Board leads to eight months without project approvals.	No projects approved during a Board meeting.
The GCF-funded projects lead to forced resettlement affecting poor, vulnerable communities negatively.	A major risk that has materialized in other comparable organizations.
AE violates local anti-money laundering laws.	Increasingly important for risk for comparable organizations and also permits analysis of non-compliance with local laws.
Legal process against the Board is initiated by contractors of the GCF-funded projects.	In the absence of privilege and immunity arrangements, this is an important source of risk for the GCF.
Country-ownership principles are not adhered to: no objections from national designated authorities/focal points are received but the GCF and the AEs fail to have a strong dialogue on pipeline development with countries.	Assesses the impact of failing to follow paragraph 3 of the Governing Instrument on implementing a country-driven approach.
Financial events	
The Non Performing Loans (NPLs) of the GCF reach 20 per cent; loans are 10 per cent of the portfolio.	The level of NPL reflects the level of cushion for losses required from loan contributors. The level of loans reflects the upper limit of expected loan and capital contributions to the GCF.
19 per cent depreciation of EUR with respect to USD	Two times the standard deviation in the five years ending on 30 September 2015.
Contributors reschedule by 18 months the encashment schedule.	Rescheduling observed under stress scenarios in other comparable organizations.
The GCF projects fully disburse within 24 months of Board approval.	While there are no guidelines on the expected period of disbursement, 24 months would test the impact on the liquidity of the GCF that a relatively fast pace of disbursement would have.
Interim Trustee loses 5 per cent on liquid assets.	This is a stress scenario exceeding the Interim Trustee's investment objectives of, at a minimum, preserving the invested capital.
25 per cent of pledges are not converted into signed contributions by the end of the Initial Resource Mobilization (IRM)	In the absence of historical information or reasonable comparison from another organization, this is a broad estimate to illustrate the potential impact of this event.
The GCF provides a USD 100 million grant to a project which goes bankrupt.	Reflects the expected median size of activities deemed to be 'large' as per the accreditation policy (minimum size USD 50 million).
The GCF invests 5 per cent of IRM resources in a single equity fund which loses 50 per cent of principal.	The 5 per cent represents the IRM initial expected level of loan contributions to the GCF. Fifty per cent losses are an extreme but feasible loss level in high risk activities such as equity funds.
Fifty per cent of borrowers request five additional years of a grace period.	Stress case to assess the impact of a generalized rescheduling of debts to the GCF.
Default on promissory notes/cash payment schedule by one of the top three contributors.	Stress case to assess the impact of contributions that do not materialize but that are already accounted for as commitment authority.

28. The impact of each non-financial scenario is initially assessed by looking at the different risk triggers that would become active in each case and the adequacy of the risk mitigation measures in place. Additionally, financial scenarios are provided as inputs to a cash flow model

in order to assess the impact on the financial position of the GCF and its ability to provide liquidity to approved projects. In the final step of the simulation, both financial and non-financial scenarios are pooled simultaneously to generate a range of combinations that permits the identification of the types of risk most important to the GCF.

29. At this point, the ex-ante estimations made of the risk priorities in the risk register can be updated. As a final step in the risk appetite-setting process, the Board will be presented with different options for its consideration on the potential trade-off between different risk categories and will decide for which types of risk the GCF can have a higher appetite provided that the climate change benefits outweigh the potential negative impact if those risks were to materialize.

30. **Next Steps.** The RMC has been working in finalizing the assessments of the simulations using a scoring approach for the impact of each of the scenarios on the GCF's risk categories. For each risk category, a general risk statement and metrics are proposed. The Board should decide based on three potential risk levels (high, medium or low risk appetite). Table 3 presents an illustrative example of the approach being followed by the Committee and annex 4 presents a full list of potential risk statements. The Committee, based on the simulations and additional analysis would recommend on a specific level (shaded in grey for these two risks). A technical note and simulation was presented to the Committee in Cape Town during the IBD, followed by a revised version presented to the RMC prior to the twelfth meeting of the Board, The methodology and simulation has not been approved by the Committee since the RMC has not been able to reach quorum due to insufficient number of the RMC nominees. Annex 4 summarizes potential risk appetite statements for each risk category.

Table 3. Examples of Potential Risk Appetite Statements and Targets

(Proposed Limits and Tolerances will be presented to the RMC once the committee is fully operational, hence "TBD" To be determined)

Reputational Risk: Risks arising from negative perceptions, opinions and beliefs that GCF's existing and potential stakeholders may hold.		
Proposed Risk Statement		
High	***Medium***	***Low***
Given the importance of the climate change challenge, GCF will operate in new, transformational areas that may be controversial or untested. While the GCF will seek to address reputational issues this may create, such issues will be of secondary importance.	Given the importance of the climate change challenge, the GCF will operate in new, transformational areas that may be controversial or untested, at the same time, continued support from global stakeholders is essential to the GCF's success therefore, the GCF will seek to actively engage stakeholders and plan and respond to reputational issues which may arise.	Given the importance of the climate change challenge, continued support from global stakeholders is essential to the GCF's success and therefore the GCF will only carry out activities where the GCF's reputational risk has been minimized.
Proposed Target		
High	***Medium***	***Low***
More than two of media reports negative; periodic survey of NDAs, AEs and Observers reviewed but no target.	Up to two of media reports negative during the same year; periodic survey of NDAs, AEs and Observers reviewed and corrective actions/responses taken in all instances.	No negative media reports, no negative surveys from NDAs, AEs and Observers.

Proposed Limit		
High	***Medium***	***Low***
TBD	TBD	TBD
Proposed Tolerance		
High	***Medium***	***Low***
TBD	TBD	TBD

Funding Risk: Risks associated with contributors postponing contributions to GCF leading to insufficient resources to achieve the strategic mandate and/or fulfill financial commitments already made.		
Proposed Risk Statement		
High	***Medium***	***Low***
In the absence of binding agreements with respect to funding to the GCF, the GCF will operate assuming that the timing of incoming resources is difficult to predict and therefore project approvals will be carried out only once cash has been received.	Predictable funding is essential for the GCF to achieve its objectives but it is understood that contributors may delay contributions for many reasons. Therefore, the GCF may if necessary delay projects approval and implementation to adapt to changes in the encashment schedule.	Predictable funding is essential for the GCF to achieve its objectives and the GCF will take all necessary actions to protect the predictability of such funding, including strong compliance with its overall risk management framework, broad diversification of sources of funding and ensuring that pledges are converted in cash contributions in a timely manner.
Proposed Target		
High	***Medium***	***Low***
Delays in encashments of signed contributions and reflows to the GCF from recipients of up to five years. No additional targets.	Delays in encashments of signed contributions and reflows to the GCF from recipients of up to 24 months. Pledges to be converted into signed contributions by the end of the respective replenishment period. No contributor diversification target.	No delays in encashment with respect to signed contributions; pledges converted into signed agreements within 12 months of pledging; no rescheduling of financials instruments with reflows extended by the GCF; At least 10 contributors account for 50 per cent of replenishment funding.
Proposed Limit		
High	***Medium***	***Low***
TBD	TBD	TBD
Proposed Tolerance		
High	***Medium***	***Low***
TBD	TBD	TBD

VIII. Initial risk guidelines for credit and investments

31. As the GCF's portfolio of projects and programmes develops, the Board may want to agree on certain initial and possibly interim principles and parameters to guide the day-to-day operations of the Secretariat with respect to its second level due diligence of FPs and the funding decision-making process of the Board. These guidelines would operationalize some of the Board decisions taken with respect to investment criteria, resource allocation and financial

instruments and could be updated periodically to reflect the evolution of the GCF's strategic priorities.

8.1 Approach taken by other institutions

32. While being mindful of the uniqueness of the GCF, it is useful to briefly review the approach taken by similar institutions to establish parameters guiding their investments, particularly when dealing with non-grant instruments.

33. **Supervised financial institutions.** Most supervisory agencies require that financial institutions determine certain concentration limits that are generally established with respect to the capital resources that the institution has. International standards such as the Bank for International Settlements' Core Principles for Effective Banking Supervision recommend having at least the following high-level parameters with respect to investment activities:

(a) Maximum exposure or lending to a single entity, generally set at 25% of the institution's capital;

(b) Additional policies and procedures to review and approve "large" lending operations where large is defined as any transaction exceeding 10 per cent of the institution's capital; and

(c) Limits in investments for specific industry sectors, countries and types of risk

34. Additionally, the supervisory agency requires that institutions have policies and detailed investment guidelines reflected in an operational manual specifying the criteria to be followed by officers in structuring investments. Such manual discusses the maximum risk parameters for each financial instrument that the institution makes available to its clients.

35. **Climate-related Fund: the Clean Technology Fund (CTF).** The CTF, a fund that like the GCF provides funding to the private sector, adopted a series of guidelines for private sector operations.[4] In addition to details on the investment criteria and principles to be followed (similar to the topics developed by the GCF in decisions B.04/08 and B.07/06), the CTF defined certain risk parameters including criteria on circumstances in which CTF funding can be deployed on a subordinated basis with respect to the Multilateral Development Bank (MDB) implementing projects and the requirement that default interest and other measures be taken to minimize losses to the CTF. However, the CTF does not define detailed parameters for the investments it can make (for example, the maximum percentage of equity ownership it can have in an investment) as it relies mostly on the criteria followed by its accredited MDBs.

36. **MDB: International Finance Corporation (IFC).** At the strategic level, the IFC establishes an absolute limit of USD 100 million per investment and a relative limit with respect to other financiers of:

(a) 25 per cent of the total estimated costs for new projects, amount that can be increased to 35 per cent in exceptional cases, particularly for smaller projects;

(b) For expansion projects, IFC may provide up to 50 per cent of the project cost, provided its investments do not exceed 25 per cent of the total capitalization of the project company; and

(c) For equity investments, the IFC typically subscribes to between 5 per cent and 20 per cent of a project's equity. IFC is never the largest shareholder in a project and will normally not hold more than a 35 per cent stake. It seeks to maintain its equity investments for a period of 8 to 15 years.

[4] CTF: Financing Products, Terms, and Review Procedures for Private Sector Operations. September 30, 2015.

37. The IFC utilizes internal risk models to periodically adjust exposure limits by sector, individual recipient and country. These are not explicit policy limits but are part of the institution economic capital model. Those limits also seek to ensure the portfolio is sufficiently diversified to ensure the IFC maintains its AAA bond rating.

8.2 Proposed Guiding Principles for GCF Investment Parameters

38. Based on prior Board decisions including but not limited to the approved Risk Categories and Subcategories in decision B.10/08, as well as considering the approach taken by other institutions, key principles to be considered when establishing the GCF's investment parameters are:

(a) The main objective of the investment parameters is to ensure that the portfolio grows in a balanced manner to achieve key strategic objectives (including the desired 50:50 balance between adaptation and mitigation and a geographic distribution that attains a floor of 50 per cent of the adaptation allocation for particularly vulnerable countries, including least developed countries (LDCs), small island developing States (SIDS) and African States;

(b) Additionally, the investment parameters should aim to achieve the necessary portfolio diversification consistent with adequate risk management, particularly with respect to the "concentration" risk sub-categories and that the level of risk that the GCF assumes in different financial instruments is adequately capped;

(c) Two types of investment parameters are to be defined:

  (i) High-level strategic limits that apply to the entire portfolio; and

  (ii) Financial instrument-level criteria. With respect to the latter, the proposed parameters in this note are meant to be a first step in the process of developing more detailed investment manuals.

(d) Operations with the private sector should "crowd-in" resources from other sources and the GCF should not be the major financier of a project/programme or take a majority equity position;

(e) Limits are to be expressed in dollar amounts but in many cases should be referenced to the total commitment authority expected during the Initial Resource Mobilization (IRM). At this point, no differentiation is made between grant and non-grant resources for purposes of establishing overall limits except for the percentage of participation of GCF of total funding to a project/programme.

39. The Secretariat previously opened for Request for Proposal (RFP) to select a firm with expertise in credit and investment guidelines, developing the policies, detail parameters and guidelines to accommodate funding decisions. The RFP was published twice in 2015 and the processes were not successfully completed due to inadequate proposals for evaluation. The Secretariat plans to reopen the RFP process for credit and investment guidelines after twelfth meeting of the Board.

40. Annex 5 presents a set of guidelines that the Board may consider for approval as initial guidelines to be adopted whilst the GCF develops broader risk policies and procedures and hires the requisite risk and internal control related staff. During this period of time until B.15, the GCF will develop its risk and internal control policies; it will also hire the requisite risk and internal control teams. The following steps could be undertaken:

(a) Development of investment manuals to be used by Secretariat staff in reviewing FPs and in engaging AEs and NDAs in the process of developing the GCF's pipeline of projects/programmes. Such manuals should incorporate the final parameters and, particularly for non-grant instruments, further develop the financial indicators to be considered in approving FPs;

(b) Adjustments of these investment parameters taking into account the GCF's risk appetite; and

(c) Development of criteria and the processes to be followed if these limits are to be exceeded. For example, in the case of non-grant instruments, the Board may approve a higher limit for individual projects in cases where the GCF resources can be deployed through an AE benefitting of preferred creditor status if the financing can be structured to ensure that the GCF also is covered under that status.

Annex I: Draft decision of the Board

The Board, having reviewed document GCF/B.12/17 "Initial Risk Management Framework: Risk Register, Risk Appetite Update and Initial Risk Guidelines for Credit and Investment":

(a) Adopts the risk register as contained in annex II to this document. Such a risk register will be updated at least once a year;

(b) Takes note of the development of the other elements of the risk management framework;

(c) Also takes note of the progress in developing GCF's risk appetite;

(d) Adopts the initial risk guidelines for credit and investment as contained in annex 5 of this document on an interim basis and requests the Risk Management Committee, with support from the Secretariat, to prepare and present to the Board for its consideration, not later than the fifteenth meeting of the Board, an updated set of risk guidelines;

(e) Requests the Secretariat, in consultation with the Risk Management Committee, to produce risk manuals for credit and investment, asset and liability management, liquidity, and market risk before the end of 2016; and

(f) Recognises that while GCF's monitoring & accountability framework for accredited entities set out in annex 1 to decision B.11/10requires accredited entities to provide annual performance reports, including financial management reports, to the GCF, the GCF is required to prepare financial risk management summaries on a quarterly basis pursuant to annex 11 to decision B.07/05. Accordingly, such summaries will only reflect the risk categories applicable to accredited entities' performance and projects on an annual basis.

Annex II: Risk register

I. Strategic risk

Risk code	1.1	1.2
Risk category	Strategic	Strategic
Subcategory	Climate impact and results	Concentration
Description	Failure to deliver the expected transformative mitigation and adaptation climate impact as defined by the objectives, investment criteria and the results management framework of the GCF.	Concentration on a limited number or types of accredited entities (AEs) or geographies that fail to generate the required balance in mitigation/adaptation; pipeline of projects/programmes.
Triggers	1.1.1 Low scale of total mobilized funding by the GCF (including co-financing from other sources); 1.1.2 Ineffective use of resources due to poor overall GCF strategy or poor choice of projects/programmes to fund; and 1.1.3 Insufficient demand for the GCF resources.	1.2.1 Poor outreach or an excessively complicated accreditation process limits interest by entities to be accredited leading to reliance on a limited number of them; 1.2.2 Pipeline management and approval process fail to adequately balance projects/programmes by AE/geography/financial instrument; and 1.2.3 Inability of direct access entities to generate projects fitting the GCF's criteria due to lack of capacity, including due to insufficient readiness support.
Mitigation	Internal governance, investment criteria, results management framework, monitoring and evaluation, resource mobilization, country programming outreach efforts, readiness programme, and accreditation process.	Portfolio reports, including concentration levels (on profile of AEs, levels of approved funding, countries, instruments and project typology) to inform Board decisions on accreditation and funding approval and the Secretariat on pipeline development. Investment criteria.
Owner	Board, Executive Director and Directors	Board, Executive Director and Directors
Probability	Somewhat likely (SL)	Low (L)
Impact	High (H)	H
Priority	H	Medium (M)
Key risk indicator	Portfolio management overall annual assessment, including measurement of the core adaptation and mitigation indicators agreed in decision B.07/04	Herfindahl-Hirschman Index for AEs/ percentage distribution by number of projects and financial resources by geographic location and adaptation versus mitigation

Risk code	1.3	1.4	1.5
Risk category	Strategic	Strategic	Strategic
Subcategory	Portfolio management	Accountability	Country ownership
Description	Failure to build an optimal portfolio of projects/programmes as defined by the initial results management framework of the GCF.	Failure of governance to enable and make timely decisions in corporate affairs or to respond to Conference of the Parties to the United Nations Framework Convention on Climate Change (COP) guidance.	Failure to develop a portfolio of projects and programmes that is fully aligned with country priorities and strategies; that fosters the involvement of local actors; and that is consistent with the country's debt sustainability framework.
Triggers	1.3.1 Weak oversight by AEs, national designated authorities (NDAs) and the GCF on delivery of GCF investments and weak enforcement of remedial actions on low-performing projects; 1.3.2 Poor application of the results management framework to measure evolution of GCF-level results and adjust pipeline and portfolio accordingly; and 1.3.3 Ineffective identification (by the GCF, AEs, NDAs or other partners) of investment opportunities with strong paradigm shift potential.	1.4.1 COP guidance that is difficult to operationalize/translate into specific policies; 1.4.2 Inability to take timely decisions due to overloading of meeting agendas and lack of efficient board meeting proceedings; and 1.4.3 Failure to implement and/or develop procedures to address, inter alia, decision-making in the absence of consensus and between Board meetings.	1.5.1 Failure of the GCF to incorporate NDAs/focal points guidance, including due to their having limited capacity because of lack of support from the GCF; 1.5.2 Failure of the GCF to operate consistently with each country's debt sustainability framework; and 1.5.3 Insufficient GCF support to projects generating high local impact and empowerment of local stakeholders.
Mitigation	Second level due diligence process; independent Technical Advisory Panel; active oversight in portfolio management; monitoring and evaluation; and remedial actions when projects do not perform.	Board procedures, intersession decision-making arrangements and procedures for decision-making in the absence of consensus (under development).	Country programming outreach process to NDAs/focal points; GCF readiness programme; no-objection process from NDAs/focal points; second-level due diligence.
Owner	Board, Executive Director and Directors	Board	Board, Executive Director and Directors
Probability	Low (L)	Low (L)	Low (L)
Impact	High (H)	High (H)	High (H)
Priority	Medium	Medium	Medium (M)
Key risk indicator	Analysis of portfolio distribution and linkages to observed GCF-level impacts on mitigation and adaptation.	Delay in days between the presentation of a proposed decision to the Board and actual decision-making; assessment of divergence between COP guidance and actual Board decisions.	Qualitative assessment from NDAs.

II. Reputational risk

Risk code	2.1	2.2	2.3
Risk category	Reputational	Reputational	Reputational
Subcategory	Business practices and results	Unexpected shocks	Accredited entities and other partners' activities
Description	Events or issues that have a materially adverse effect on the credibility of the GCF in developing countries or with contributors, accredited entities or civil society organizations. This includes the GCF being perceived as lacking added value, being over bureaucratic, not adhering to countries' priorities or managing its resources poorly.	Adverse publicity that occurs as a result of fraud, implementation failure or other types of unforeseen shocks related to the operations of the GCF.	Adverse publicity that occurs as a result of activities not related to the GCF of accredited entities (AEs) and other partners involved in project/programmes, or from their lack of disclosure of relevant information.
Triggers	2.1.1 Ineffective dissemination of results delivered by GCF-supported projects/programmes, including presenting added value with respect to other financial partners; 2.1.2 Overly complex procedures to access GCF funding or failure to communicate in simple language the steps to access such funding; and 2.1.3 Slow decision-making processes at the Board, Secretariat, accredited entity or country-levels.	2.2.1 Poor oversight of AEs by the GCF; 2.2.2 Poor oversight by AEs of executing entities, including with respect to adherence to procurement, environmental and social safeguards as well as financial management; and 2.2.3 Failure to develop strong relationships with media, civil society organizations (CSOs) and other stakeholders.	2.3.1 Failure of due diligence during the accreditation process; 2.3.2 Lack of internal 'early warning systems' based on media monitoring and engagement with other stakeholders; and 2.3.3 Lack of adequate institutional capacity in the Secretariat to monitor the number and complexity of AEs and other partners thus increasing the difficulty of monitoring emerging risks.
Mitigation	Communications strategy (in progress), including the approach to disseminating results, internal processes manuals (in progress), readiness programme, accreditation process, Country Programming outreach, financial management processes of the GCF, media monitoring, participation of observers in Board meetings.	Accreditation process, oversight actions taken by the GCF as specified in the master agreement signed with AEs, portfolio management, including review of the progress report for each project, activities of the Redress Mechanism and Integrity Units, and media monitoring.	The accreditation process, media monitoring, country programming and portfolio management units' engagement with AEs, NDAs, CSOs and other stakeholders.
Owner	Board, Executive Director, Directors and Chief Financial Officer	Board, Executive Director, Directors and Heads of Accountability Units	Executive Director and Director
Probability	Somewhat unlikely (SU)	Somewhat likely (SL)	Low (L)
Impact	Somewhat disruptive (SD)	High (H)	H

Risk code	2.1	2.2	2.3
Priority	Medium (M)	H	M
Key risk indicator	Percentage and number of negative media reports related to this risk subcategory (as opposed to positive and neutral); periodic survey of NDAs, AEs and observers.	Percentage and number of negative media reports related to this risk subcategory (as opposed to positive and neutral).	Percentage and number of negative media reports related to this risk subcategory (as opposed to positive and neutral).

III. Operational risk

Risk code	3.1	3.2
Risk category	Operational	Operational
Sub-category	Accredited entities (AEs) and other parties' risk	Fiduciary
Description	Failure of AEs to comply with the accredited entities master agreement, including in terms of information disclosure. Lack of implementation capacity of the AEs leading to lack of or slow disbursement. Failure of other parties, including executing entities (EEs), involved in GCF projects and programmes to comply with their respective agreements with the GCF or with AEs.	Failure of the GCF to exercise effectively its fiduciary duty due to: (a) failure of internal controls in administrative and operational procedures; (b) failure to effectively monitor risks and follow appropriate mitigation procedures, including due to the use of improper analytical models; (c) failure to oversee AEs (and their oversight over executing entities); (d) failure to monitor and engage national designated authorities (NDAs); and (e) internal or external fraud.
Triggers	3.1.1 Inadequate accreditation process; 3.1.2 Accreditation master agreement not aligned with implementation circumstances in certain countries/sectors/type of AEs; and 3.1.3 Deterioration in AEs' institutional capacity and performance, including with respect to their ability to oversee executing entities.	3.2.1 Absence of or unclear internal processes manuals and controls; 3.2.2 Defective accredited entities master agreement that limits the ability of the GCF to exercise its fiduciary duty; and 3.2.3 Inadequate external audits of the GCF, AEs or EEs with respect to activities carried out with GCF funding.
Mitigation	Accreditation process; oversight of AEs through periodic monitoring and default clauses in the accredited entities master agreement; portfolio management system.	Technical imposed controls in computer systems; periodic internal controls review, including the Committee of Sponsoring Organizations of the Treadway Commission exercise. Risk management framework; portfolio management systems; periodic review, including spot checks, of AE activities; periodic engagement with NDAs; yearly audit of the GCF and of funded activities.
Owner	Executive Director and Directors	Board, Executive Director and Directors
Probability	Somewhat likely (SL)	Somewhat likely (SL)
Impact	Somewhat disruptive (SD)	Somewhat disruptive SD
Priority	High (H)	High (H)
Key risk indicator	Number of non-compliance with legal agreements/deviation in monetary terms from expected rate of disbursements	Number of operational incidents and associated loss

Risk code	3.3	3.4
Risk category	Operational	Operational
Subcategory	Staffing	Business disruption
Description	Operational failures, losses and other disruptions arising from the staffing model of the GCF, including staff headcount level and external consultants as well as from problems with recruitment, retention, succession planning, integrity and morale among GCF staff.	Disruption of business due to catastrophic events or systems failures (hardware, software, telecommunications, unrest).
Triggers	3.3.1 Inadequate professional profile and insufficient GCF staff; 3.3.2 Inadequate workload per staff and/or lack of expectations regarding career progression; and 3.3.3 Use of consultants who only provide limited knowledge transfer to staff and who may have divided loyalties.	3.4.1 Disruption in the provision of public services to GCF Headquarters or strife that prevents temporary or permanent access to GCF Headquarters; 3.4.2 Inaccessibility of GCF information assets, including failure of remote backup server systems and failure to develop and implement a remote working location arrangement; and 3.4.3 Low quality hardware and software developed or procured by the GCF.
Mitigation	Human Resources guidelines, including a competitive benefits package, effective performance management system, and continuous learning opportunities; actions to sustain staff morale; Board empowering of the Secretariat staff; Integrity Unit.	Cloud centric way of holding and securing information assets, combined with mobile computing, to allow staff to work remotely. A business continuity management system consistent with ISO 22301:2012 is under development.
Owner	Board, Executive Director, Directors and Integrity Unit	Chief Financial Officer
Probability	High (H)	Low (L)
Impact	Somewhat disruptive (SD)	High (H)
Priority	High (H)	Medium (M)
Key risk indicator	Number of long-term unfulfilled positions, turnover rate, periodic benchmarking against similar organizations, number of incidents and associated losses involving rogue employees, consultants/staff ratio, staff survey, outcomes of performance management tools, ratios relating to: number of staff/level of GCF financial assets, number of staff/number of NDAs, AEs and projects.	Number of events and associated impact as well as outcomes of periodic simulated events.

IV. Legal risk

Risk code	4.1	4.2	4.3
Risk category	Legal	Legal	Legal
Subcategory	Legislative	Contractual	Non-contractual
Description	Failure by the GCF, accredited entities (AEs) or executing entities to implement legislative or regulatory requirements related to the operations or engagements of the GCF in situations where governing laws or rules are ambiguous or untested.	Use of defective contracts that expose the GCF to disputes and losses.	The GCF, AEs or executing entities fail to keep to the spirit, as well as the letter, of non-contractual law: for example, with respect to infringement of third-party intellectual property rights.
Triggers	4.1.1 Lack of privileges and immunities for the GCF and its staff in all countries where the GCF operates; 4.1.2 Improper monitoring of legislative/regulatory changes applicable to the GCF, including due to poor communication with host country authorities; and 4.1.3 Inconsistency between regulations and laws applicable to the GCF and Board decisions, and other internal policies.	4.2.1 Improper drafting of legal contracts by GCF legal staff, including due to improper monitoring of applicable laws; 4.2.2 Deviation from master/framework legal agreements; and 4.2.3 Improper drafting of a mediation mechanism clause.	4.3.1 Non-compliance by the GCF, AE or executing entities with non-contractual law; 4.3.2 Failure of the GCF to follow generally accepted duty of care with staff, Board members or other stakeholders; and 4.3.3 Failure of an executing entity to follow procurement and environmental and social safeguards practices consistent with those established in the AEs master agreement.
Mitigation	General Counsel (GC) review of the operating environment of the GCF; accreditation process; portfolio and media monitoring; privileges and immunities (not yet in place).	GC and, when applicable, senior management review of all contracts. Use of external counsel if necessary. Privileges and immunities (not yet in place).	GC oversight of legal documents and internal practices. Adequate staffing of portfolio management teams. Oversight of commitments in the AEs master agreement and in the funded activity agreement.
Owner	Executive Director, Directors and GC	Executive Director, Directors and GC	Board, Executive Director and Directors
Probability	Somewhat likely (SL)	Low (L)	Low (L)
Impact	High (H)	High (H)	Somewhat non-disruptive (SND)
Priority	High (H)	Medium (M)	Medium (M)
Key risk indicator	Number of events (sanctions, legal suits) and associated losses.	Number of events (sanctions, legal suits) and associated losses.	Number of events (sanctions, legal suits) and associated losses.

V. Compliance

Risk code	5.1	5.2
Risk category	Compliance	Compliance
Subcategory	External	Internal
Description	Failure to comply with the applicable established laws, regulations, policies and standards and codes of conduct set by countries in which the GCF operates and by international law.	Failure of staff or Board members to comply with the standards and codes of conduct that are set by the GCF itself through its policies and procedures.
Triggers	5.1.1 Lack of privileges and immunities for the GCF and its staff in all countries where the GCF operates; 5.1.2 Ineffective/inefficient staff to monitor compliance; and 5.1.3 Uncertainty regarding laws/regulations/policies from countries where the GCF operates applicable to the GCF.	5.2.1 Lack of compilation of policies, procedures, standards of codes; 5.2.2 Lack of enforcement by the Board or Secretariat management; and 5.2.3 Real or perceived ineffectiveness of the Integrity Unit.
Mitigation	Fiduciary policies, including anti-money laundering/ countering the financing of terrorism (under development). Environmental and social safeguards; periodic exchanges with home country authorities; privileges and immunities (not yet in place).	Board meetings; internal processes manuals (under development); Integrity Unit.
Owner	Executive Director, GC, Chief Financial Officer (CFO) and Directors	Board, Executive Director, GC, CFO, Directors and Integrity Unit
Probability	Somewhat likely (SL)	Somewhat unlikely (SU)
Impact	High (H)	Somewhat disruptive (SD)
Priority	High (H)	Medium (M)
Key risk indicator	Number of events and associated loss (if any)	Number of events and associated loss (if any)

VI. Performance risk

Risk code	6.1	6.2	6.3
Risk category	Performance	Performance	Performance
Subcategory	Temporal	Monetary	Investment criteria
Description	Failure of accredited entities (AEs) or executing entities (EEs) to respect tenors and/or schedules as pertain to financial obligations or the execution of projects/programmes.	Failure of AEs and executing entities to honour financial obligations in a timely manner. This includes credit risk; counterparty risk; equity risk; and political risk, including nationalization, expropriation, convertibility and transferability.	Failure of AEs or executing entities to adhere to the investment criteria results to which they committed themselves.
Triggers	6.1.1 Temporary inability of AE or EE to make timely payments either due to events related to the project/programme funded by the GCF or to external events; and 6.1.2 Lax project implementation by AE leads to significant delays in project execution.	6.2.1 Inability (insolvency) of AE or EE to make payments either due to events related to the project/programme funded by the GCF or to external events; 6.2.2 GCF remedies in cases of default are ineffective (or such perception exists among AEs and EEs), including due to the arbitration clause in GCF legal agreements being successfully contested in court; and 6.2.3 Grant is lost in the bankruptcy process and the project is not implemented.	6.3.1 Investment criteria is not specific enough to guide AE/EE and the GCF fails to provide further specificity in legal documents associated with each investment; 6.3.2 Reporting requirements from AE/EE are insufficient to assess compliance with investment criteria (including due to a reporting time lag); and 6.3.3 Poor oversight by the GCF of AE activities or failure to identify potential deviations from the investment criteria during the project/programme approval phase.
Mitigation	Accreditation process; project approval process; AE monitoring process as specified in the accredited entities master agreement; portfolio management oversight and remedial actions for low performing projects; media and other public sources monitoring.	Accreditation process; project approval process; AE monitoring process as specified in the accredited entities master agreement; portfolio management system; media and other public sources monitoring.	Accreditation process; project approval process; AE monitoring process as specified in the accredited entities master agreement; media and other public sources monitoring; periodic interaction with the national designated authorities (NDAs).
Owner	Executive Director, Directors, Chief Financial Officer (CFO) and Risk Manager	Executive Director, Directors, CFO and Risk Manager	Executive Director, Directors, CFO and Risk Manager
Probability	Somewhat unlikely (SU)	Somewhat unlikely (SU)	Somewhat unlikely (SU)

Risk code	6.1	6.2	6.3
Impact	Somewhat non-disruptive (SND)	High (H)	Somewhat non-disruptive (SND)
Priority	Low (L)	Medium (M)	Low (L)
Key risk indicator	Number and amount of rescheduled flows as percentage of portfolio	Non-performing loans and write-offs	Number of instances of deviation and amount of resources involved, costs (operational and financial) incurred on correcting such deviations

Risk code	6.4
Risk category	Performance
Subcategory	Concentration
Description	Failure to sufficiently diversify the portfolio of AEs/EEs and/or investments such that a material adverse event related to a restricted number of AEs/EEs and/or projects would have a portfolio-level threatening impact on the GCF.
Triggers	6.4.1 Failure of the project approval process to identify impact of specific project on the overall concentration profile; and 6.4.2 Failure to periodically adjust the criteria for project approval to keep an adequate balance of the portfolio with respect to AE/EE or instruments used.
Mitigation	Accreditation process; project approval process; portfolio management system; AE monitoring process as specified in the accredited entities master agreement; media and other public sources monitoring; periodic interaction with the NDAs.
Owner	Executive Director, Directors, CFO and Risk Manager
Probability	Somewhat unlikely (SU)
Impact	Somewhat disruptive (SD)
Priority	Medium (M)
KRI	Herfindahl-Hirschman Index for AE and instrument type; list of 10 top AEs by exposure; list of 10 top EEs by exposure

VII. Funding risk

Risk code	**7.1**	**7.2**
Risk category	Funding	Funding
Subcategory	Conversion	Encashment
Description	Failure to convert pledges into contributions in a timely manner.	Expected payments in cash or the encashment of promissory notes, do not materialize within the expected time frame.
Triggers	7.1.1 Fiscal issues arising in contributor countries; 7.1.2 Delays in legal processes within contributor countries or changes in policy priorities with respect to climate change; and 7.1.3 Loss in confidence of contributor countries in the effectiveness of the GCF.	7.2.1 Fiscal issues arising in contributor countries; 7.2.2 Change in policy priorities with respect to climate change; and 7.2.3 Real or perceived inability of the GCF to enforce contribution arrangements.
Mitigation	Resource mobilization reports to the Board; periodic engagement with contributors; media and other public sources monitoring.	Resource mobilization reports to the Board; periodic engagement with contributors; media and other public sources monitoring.
Owner	Executive Director, Chief Financial Officer (CFO) and Risk Manager	Executive Director, CFO and Risk Manager
Probability	Somewhat likely (SL)	Somewhat likely (SL)
Impact	High (H)	Somewhat disruptive (SD)
Priority	High (H)	Low (L)
Key risk indicator	Percentage of pledges remaining unsigned (for each year of the replenishment period)	Amount of payment/encashment of note not received and number of months of delay per contributor

Risk code	7.3	7.4
Risk category	Funding	Funding
Subcategory	Reflow	Concentration
Description	Expected reflows to the GCF from the project portfolio do not materialize within the expected time frame.	Failure to sufficiently diversify the portfolio of contributors such that a materially adverse event related to one or a few key contributors would give rise to a GCF-threatening liquidity or solvency situation.
Triggers	7.3.1 Performance risk; and 7.3.2 Failure of GCF grant/loan management (operational risk) system to identify missing flows.	7.4.1 Support for climate change financing is limited to a relatively reduced number of countries due to evolving policy priorities; 7.4.2 Failure of replenishment processes due to ineffective outreach to contributors; and 7.4.3 Impasse occurs at the level of the Conference of the Parties to the United Nations Framework Convention on Climate Change.
Mitigation	Periodic testing of internal management systems	Resource mobilization reports to the Board; periodic engagement with contributors; commitments management system; media and other public sources monitoring.
Owner	Executive Director, CFO and Risk Manager	Executive Director, CFO and Risk Manager
Probability	Somewhat unlikely (SU)	Low (L)
Impact	High (H)	High (H)
Priority	Medium (M)	Medium (M)
Key risk indicator	Amount of missing reflows and number of months of delay per AE.	Herfindahl-Hirschman Index for contributors and/or list of top five contributors as percentage of replenishment.

VIII. Market risk

Risk code	8.1	8.2	8.3
Risk category	Market	Market	Market
Subcategory	Foreign exchange (FX)	Interest rate	Liquidity
Description	Foreign exchange risk	Adverse changes in interest rates, including investment losses in the liquid cash portfolio of the GCF.	Timing mismatch between the cash inflows and cash outflows leading to shortages in the ability of the GCF to face its payment obligations (including disbursements to accredited entities (AEs)).
Triggers	8.1.1 FX fluctuations affecting the value of un-encashed signed contributions; 8.1.2 FX fluctuations affecting the value of reflows to the GCF; and 8.1.3 FX fluctuations affecting the value of commitments made to AEs for grants and loans made in currencies different to the holding currency of the GCF.	8.2.1 Change in interest rates generate losses in the Trustee investment of the liquid portfolio of the GCF; and 8.2.2 Pre-payment risk of fixed rate financial instruments provided by the GCF.	8.3.1 Delay in encashment of signed contributions; 8.3.2 Disbursement requests from AE exceeding expected rate; and 8.3.3 Rescheduling of loans extended by the GCF.
Mitigation	Instruments management system (in progress); FX reserve; FX hedging	Periodic review of trustee investment policies; project approval process; asset-liability management system.	Cash flow model; financial instruments management system.
Owner	Board, Executive Director, Chief Financial Officer (CFO) and Risk Manager	Executive Director, Director, CFO and Risk Manager	Executive Director, CFO and Risk Manager
Probability	Somewhat unlikely (SU)	Somewhat likely (SL)	Somewhat likely (SL)
Impact	Somewhat disruptive (SD)	Somewhat non-disruptive (SND)	Somewhat disruptive (SD)
Priority	Medium (M)	Medium (M)	High (H)
Key risk indicator	Historical losses adjusted to take into account FX positions that cannot be hedged on an economic basis.	Value at risk of liquid portfolio and amount of fixed rate loans extended by the GCF subject to prepayment risk.	Duration mismatch and/or percentage of available funds held as a liquidity cushion.

IX. Priority table

Occurrence probability \ Impact	Low (L)	Somewhat non-disruptive (SND)	Somewhat disruptive (SD)	High (H)
Low (L)	Low priority	Low priority	Low priority	Medium priority
Somewhat unlikely (SU)	Low priority	Low priority	Medium priority	Medium priority
Somewhat likely (SL)	Low priority	Medium priority	High priority	High priority
High (H)	Medium priority	Medium priority	High priority	High priority

Annex III: Portfolio dashboard reporting template

PORTFOLIO MANAGEMENT DASHBOARD

Last update: 2016-01-26 11:00 (UTC +09:00)

TOTAL COMMITMENT	TOTAL DISBURSEMENT	CO-FINANCING LEVERAGE	UNCOMM. FUND BALANCE
4,624,108	3,891,231	14,791,231	3,980,000
Total in thousands	Total in thousands	Total in thousands	

NPL INDICATOR

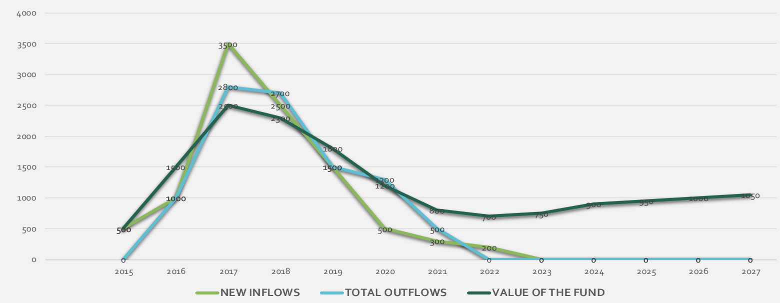
	RATIO	TOTAL
USD	2%	2,012
EUR	-1%	1,203
JPY	0%	0

FX GAIN/LOSS

	YTD	TOTAL
USD	2%	5%
EUR	-1%	-4%
JPY	3%	2%

CASH FLOW PROJECTION

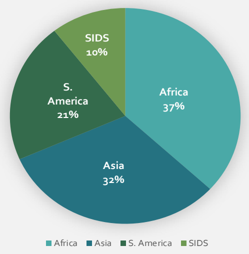
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NEW INFLOWS	500	1000	3500	2500	1500	500	300	200	0	0	0	0	0
TOTAL OUTFLOWS	0	1000	2800	2700	1500	1300	500	0	0	0	0	0	0
ALUE OF THE FUND	500	1500	2500	2300	1800	1200	800	700	750	900	950	1000	1050



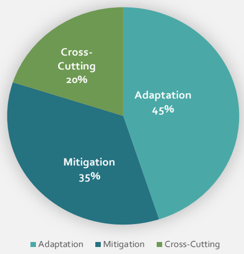
TARGETS

ALLOCATION	TARGET	ACTUAL	TARGET-ACTUAL
ASIA-ADAP1	20%	26%	-6%
SAM-MIT1	25%	21%	4%
SAM-ADAP2	25%	28%	-3%
AFR-ADAP3	15%	13%	2%
AFR-MIT2	15%	12%	3%

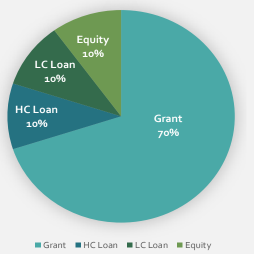
REGIONAL ALLOCATION (COMMITTED)



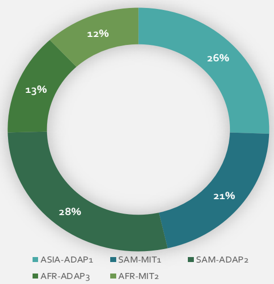
PROGRAM BALANCE (COMMITTED)



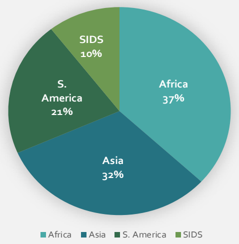
FINANCIAL INSTRUMENTS (COMMITTED)



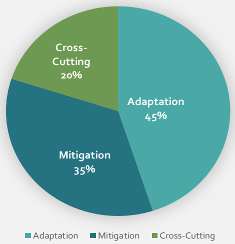
OVERALL PROFILE (ACTUAL)



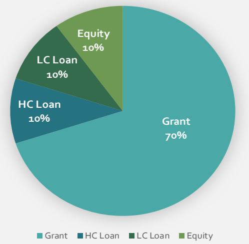
REGIONAL ALLOCATION (DISBURSED)



PROGRAM BALANCE (DISBURSED)



FINANCIAL INSTRUMENTS (DISBURSED)



Top 10 Co-Financing Projects

SYMBOL	TOTAL AMOUNT GCF	TOTAL AMOUNT TOTAL
AFRA201	10%	2123014
ASAM790	20%	1298124
SAMA283	8%	902314
SIDSA141	10%	898012
SIDSM214	9%	882131
UNA211	-3%	712141
AFRM112	5%	652312
SAMM783	-1%	321213

Top 10 Commitments

SYMBOL	COMMITTED AMOUNT 2016	COMMITTED AMOUNT TOTAL
AFRM112	21%	2103
SAMM783	14%	1589
SIDSA882	20%	1502
AFRA114	10%	1320
ASAA200	3%	1222
AFRA882	9%	1200
UNM901	2%	890
SIDSA74	-1%	780

Top 10 Risks

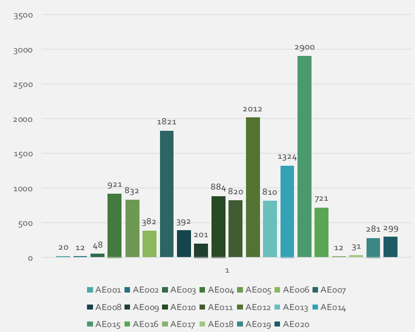
SYMBOL	RISK METRICS 2016	RISK METRICS TOTAL
AFRM112	21%	2103
SAMM783	14%	1589
SIDSA882	20%	1502
AFRA114	10%	1320
ASAA200	3%	1222
AFRA882	9%	1200
UNM901	2%	890
SIDSA74	-1%	780

Portfolio Overview

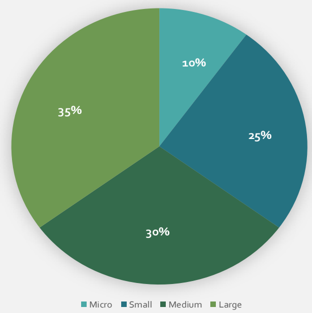
PROGRAM	COMMITMENT	BOOK VALUE	EQUITY VALUE	CASH AVAILABLE	TOTAL VALUE	GAIN/LOSS*	REPAYMENT	FEE	PROFIT
ASIA-ADAP1	850,210	746,890	980,214	104,000	1,084,214	150,123	90,000	1,232	112,000
SAM-MIT1	693,820	630,123	625,100	63,899	688,999	-2,120	0	987	0
SAM-ADAP2	938,271								
AFR-ADAP3	450,212								
AFR-MIT2	394,321								
PROJECT									
AFRA201	28,105								
ASAM790	12,042								
SAMA283	59,201								
SIDSA141	104,821								
SIDSM214	201,284								
UNA211	392,801								
AFRM112	20,984								
SAMM783	48,277								
SIDSA882	3,942								
AFRA114	12,393								
ASAA200	87,402								
AFRA882	97,820								
UNM901	138,400								
SIDSA74	89,802								
Grant Total	4,624,108								

*Applicable for equity/guarantee

DISBURSEMENT BY ACCREDITED ENTITIES



PROJECT SIZE RATIO



Annex IV: Draft risk statements for each risk category

1. The proposed Limits and Tolerances will be presented to the RMC once the committee is fully operational, hence "TBD" To be determined

Strategic Risk: Risk that could impede the achievement of the Green Climate Fund's (GCF) strategic objectives of promoting "the paradigm shift towards low-emission and climate-resilient development pathways".
Proposed Target Risk: Low
Proposed Risk Statement
Given the global importance of the GCF's mandate, the GCF has a very low risk appetite to diverge from delivering the expected transformative mitigation and adaptation climate impact as defined by the objectives, investment criteria and the results management framework of the GCF and the need to develop a well balanced portfolio of projects/programmes consistent with the principles of country ownership and the Conference of the Parties' guidance.
Proposed Target
Measurement of deviation from the strategic plan of the GCF.
Proposed Limit
TBD
Proposed Tolerance
TBD

Reputational Risk: Risk arising from negative perceptions, opinions and beliefs that the GCF's existing and potential stakeholders may hold.
Proposed Target Risk: Medium to Low
Proposed Risk Statement
Given the importance of the climate change challenge, the GCF will operate in new, transformational areas that may be controversial or untested, at the same time, continued support from global stakeholders is essential to the GCF's success. Therefore, the GCF will seek to actively engage stakeholders and respond to reputational issues which may arise.
Proposed Target
Up to XX number of negative media reports; periodic survey of NDAs, Accredited Entities (AEs) and Observers where review and corrective actions/responses are taken in all instances
Proposed Limit
TBD
Proposed Tolerance
TBD

Operational Risk: Risk that arises due to inadequate or failed internal processes, human resources, and systems or problems caused by external events.
Proposed Target Risk: Low
Proposed Risk Statement
The GCF has an overall low operational risk appetite, including a zero tolerance for fraud in its operations. As the GCF expands its activities into new areas and supports local capacity development of national AEs, it will seek to mitigate its operational risks to strike a balance between the need to keep a low operational risk while ensuring strong country ownership and transformational interventions.
Proposed Target
Zero anti-money laundering, fraud, counter terrorism incidents within the GCF and in GCF-supported projects in all types of AEs.
Proposed Limit
TBD
Proposed Tolerance
TBD

Legal Risk: Risk of loss caused by defective transactions, penalties or sanctions originating from lawsuits filed against the GCF, sanctions pronounced by a regulatory or government body, failure to take appropriate measures to protect assets owned by the GCF, and changes to legal frameworks
Proposed Target Risk: Medium to Low
Proposed Risk Statement
As a new organization currently without many of the privileges and immunities accorded to other international organizations and given the urgent need to carry out its transformative mandate, the GCF has a medium to low legal risk appetite that it will seek to mitigate through insurance and other interim measures until it obtains privileges and immunities.
Proposed Target
The GCF is subject to legal proceedings once every two years.
Proposed Limit
TBD
Proposed Tolerance
TBD

Compliance Risk: Risk arising from failure to comply with the applicable laws, regulations, or standards and codes of conduct that are set by host countries in which the GCF invests; and the risk arising from the GCF itself through its policies and procedures.
Proposed Target Risk: Low
Proposed Risk Statement
Consistent with the principles of country-ownership and strong internal governance, the GCF has a very low risk appetite for compliance risks.
Proposed Target
Zero yearly occurrences of lack of compliance with national legal frameworks or with the GCF's own policies and procedures.
Proposed Limit
TBD
Proposed Tolerance
TBD

Performance Risk: Risk that materializes when an AEs fail to adhere to the terms of funding received from the GCF.
Proposed Target Risk: Medium to Low
Proposed Risk Statement
The GCF has low appetite for performance risk. Consistent with such low risk appetite, the GCF has implemented an accreditation process that seeks to ensure that AEs are able to comply with the legal agreements with the GCF.
Proposed Target
Zero yearly occurrences of legal disputes with AEs including with respect to repayment of funds to the GCF.
Proposed Limit
TBD
Proposed Tolerance
TBD

Funding Risk: Risks associated with contributors postponing contributions to the GCF leading to insufficient resources to achieve the strategic mandate and/or fulfill financial commitments already made.
Proposed Target Risk: Low
Proposed Risk Statement
Predictable funding is essential for the GCF to achieve its objectives and the GCF will take all necessary actions to protect the predictability of such funding, including strong compliance with its overall risk management framework, broad diversification of sources of funding and ensuring that pledges are converted in cash contributions in a timely manner.
Proposed Target
No delays in payments of cash and deposits/encashments of promissory notes with respect to signed contributions; pledges converted into signed agreements within 12 months of pledging; no rescheduling of financials instruments with reflows extended by the GCF; at least 10 contributors account for 50 per cent of replenishment funding.
Proposed Limit
TBD
Proposed Tolerance
TBD

Market Risk: Risk of losses arising from adverse movements in market prices
Proposed Target Risk: Medium
Proposed Risk Statement
During the initial phase of operation of the GCF and given the exogenous nature of market risks, the GCF will have a medium level of risk tolerance to market risk. This appetite will be lowered in the mid term through the development of appropriate market risk management policies and tools, including FX and interest rate.
Proposed Target
TBD
Proposed Limit
TBD
Proposed Tolerance
TBD

Annex V: Proposed initial risk guidelines for credit and investment

A. High Level Parameters (IRM)		
Parameter	Range of Values for Board to Consider picking One Value	Comment
Maximum single investment (i.e., GCF funding to a single project/programme)	Projects: up to USD 150M per project Programmes: up to USD 500M per programme	Proposed initial value, Projects at 1.5 per cent of IRM funds; programmes at 5 per cent of IRM funds.
Maximum total approvals to a single country	Up to USD 500M	As the commitment authority increases in successive replenishments, a limit in the order of 5 per cent of available resources could help ensure appropriate fairness and diversification.
Maximum total approvals to a single AE	Up to USD 500M The AE should have a track record in the proposed geography or the industry (sub-sector) for which they seek the GCF's money.	Maximum 5 per cent of IRM. This amount can be reviewed as the number of AEs evolve. AEs should be expected to bring projects and programmes in either a geography or an industry in which they have a track record.
Maximum total approvals by results area/industry	Up to USD 1.5B	Results area/industry includes: (a) Adaptation (i) Transportation; (ii) housing; (iii) water and sanitation; (iv) health; (v) other social services (b) Mitigation (i) solar/PV energy; (ii) eolic; (iii) other green energy generation including efficiency gains in existing infrastructure;(iv) public transportation; (v) green vehicles (non-public); (vi) energy efficiency in private and public building; (vii) land use management

<table>
<tr><th colspan="3">B. Financial Instrument Parameters (IRM)</th></tr>
<tr><th>Instrument</th><th>Parameters</th><th>Comment</th></tr>
<tr><td>Grant
Contingent/Smart grant</td><td>For Private Sector, up to 45 per cent of the total project cost.
For Public Sector, up to 80 per cent of the total project cost.</td><td></td></tr>
<tr><td rowspan="2">Loans
Equity
Guarantees</td><td>For Private Sector, the GCF should not take more than 45 per cent of the tranche in which it participates. GCF should not be the largest contributor (e.g. not largest debt holder) or the largest financier in its tranche.</td><td rowspan="2">Setting a universal rule of 45 per cent, not being the single largest financier and being pari-passu with other financier addresses issues of: (i) taking a view that no other market participant has; and (ii) being the lead in the event of a workout. This is important because if the GCF is not mature enough to undertake direct projects then how can it justify being the only one w/ a view / funding position on any given project/programme.

It is understood and recognized that GCF wants to develop into an entity that takes on the requisite risk to make an impact. However, in the absence of requisite policies and staff, as a stop-gap measure, GCF will need to rely on the expertise and experience of AEs by taking on funding decisions that are aligned pari-passu with those of the AE.

In the case of private sector entities, a market read will help ensure that there is a potential to crowd-in private sector investors and can help determine how concessional is pricing.
All terms other than pricing (i.e. the numerical value) should be pari–passu with the AE.

The GCF should not have multiple level involvement. Its participation should be limited to one tranche and one instrument; unless justified by sequential involvement.</td></tr>
<tr><td>For Public Sector, the GCF should not take more than 60 per cent of the tranche in which it participates.</td></tr>
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