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Incremental and full cost calculation methodology

Summary

This document identifies potential methodologies and measures for the GCF to apply principles incremental and full costs to its project approval processes. The document examines the concept of incremental and full costs and their applications to climate change projects. It describes some key issues that the GCF will need to consider in developing an approach to incremental and full costs. Finally, it recommends an approach for applying incremental and full cost methodologies.

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I. Introduction

1. The Governing Instrument for the GCF, paragraph 35, states that GCF “will finance agreed full and agreed incremental costs for activities to enable and support enhanced action on adaptation, mitigation (including REDD-plus), technology development and transfer (including carbon capture and storage), capacity-building and the preparation of national reports by developing countries.”
2. By decision B.11/11, paragraph (j)(vi), the Board decided to review the proposal approval process with a view to, inter alia, strengthening project/programme eligibility criteria, including categories of incremental cost eligible for funding. In paragraph (k) of the same decision, the Board requested the Secretariat to submit a final report on the review at the thirteenth meeting of the Board.
3. By decision B.17/10, paragraph (c)(i), the Board requested the Secretariat to prepare, under the guidance of the Co-Chairs, a proposal to be discussed at the nineteenth meeting of the Board for “the development and application of an incremental cost calculation methodology and/or alternative methodologies, as appropriate”.
4. By decision B.19/06, paragraph (a), the Board noted the linkages between incremental cost and concessionality and the policy gaps identified in decision B.11/11. In paragraph (d) of the same decision, the Board requested the Secretariat to develop an integrated approach to resolve these interrelated issues for the Board’s consideration at its twentieth meeting, which has now been deferred to the twenty-first meeting of the Board.
5. This document is divided into four sections:
 - (a) A review of the definitions of incremental and full costs and how they apply to climate change projects;
 - (b) Principles and lessons learned from the practices of other environmental funds;
 - (c) A review of experience in applying incremental and full cost reasoning in GCF funding proposals; and
 - (d) A recommended approach for the GCF.
 - (e) A draft policy for implementing these recommendations is contained in annex II.

II. Definitions

2.1 General definitions of incremental costs and full costs

6. In economics and cost accounting, incremental cost refers to the additional expenses incurred with respect to a baseline to produce a new output or an equivalent output in a different manner.¹ In this context, the full cost of the project would equal the baseline cost plus the incremental cost. For GCF, incremental costs are the additional expenses incurred with respect to a baseline to produce a new output or an equivalent output in a way that results in mitigation or adaptation impact.
7. The United Nations Framework Convention on Climate Change (UNFCCC) in its Article 4.3 states that developed countries shall provide new and additional financial resources to meet

¹ This concept is different from marginal cost, which refers to the change in total costs associated with producing an additional unit of output.

the “agreed full costs” incurred by developing countries in fulfilling the commitments under the Convention. Developed countries shall also provide such financial resources needed by the developing countries to meet the “agreed full incremental costs” of implementing measures to meet the objectives of the Convention. Article 12 of the Convention states that developing countries may propose projects for financing including “if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits.”

8. As part of the discussion to elaborate Article 11 of the UNFCCC on the financial mechanism, the interim UNFCCC secretariat in 1994 prepared a technical note which stated, “Incremental costs will be defined vis-à-vis a baseline situation, which could be not to implement a measure at all, or to implement it in a manner that does not aim at achieving the objective of the Convention. The incremental cost will be the difference between the cost of the baseline activity (which may be zero) and that of the actually implemented measure.”² The UNFCCC technical note³ also included the following key observations, which continue to be relevant:

- (a) Baseline scenarios, which are essential for defining incremental costs, are hypothetical; defining them constitutes a major issue in the determination of incremental costs and is inevitably a matter for negotiation among the parties concerned. There will be a need to apply rules of economic, environmental, technical and financial reasonableness in defining baseline scenarios;
- (b) Incremental costs are sensitive to proposed measures and the baseline scenario. In cases where the latter is specific to the country situation, this may complicate any attempt to codify standard incremental costs on the basis of an indicative list of measures;
- (c) The determination of incremental costs would be facilitated by the development of model projects, corresponding to the substitution of typical baseline activities by typical alternatives;
- (d) The use of net versus gross incremental costs may lead to different funding levels. If net costs are used, any local economic benefits from the project would be subtracted and therefore the amount of incremental costs would be reduced; and
- (e) The fact that the alternative project has important economic or local benefits does not guarantee that the additional funds required will be available domestically or from external - public or private - sources. For GCF, this illustrates the need finance full costs rather than incremental in certain cases.

2.2 Differentiating between full project costs and full adaptation costs

9. Discussions of full costs need to differentiate between the full costs of a project and the full costs of adaptation. The full costs of a project or a component are simply the baseline costs plus the incremental costs, while the full costs of adaptation refer to the costs of any action needed to adjust natural or human systems in response to climate change. Because the full costs of adaptation are defined in comparison to a baseline scenario absent climate change, it can be classified as a type of incremental cost.

² *Approaches to the Determination of Agreed Full Incremental Costs*. A/AC.237/50/Add.1. 1994. Intergovernmental Negotiating Committee for a Framework Convention on Climate Change. Ninth session.

³ *Ibid.*

10. In the UNFCCC context, references to “full costs” usually mean the “full costs of adaptation.” The Least Developed Countries Fund (LDCF) provides grants to cover the “agreed full cost” of preparing the National Adaptation Programmes of Action (NAPAs)⁴ and full-cost funding to meet the “additional costs” of implementing adaptation activities prioritized in NAPAs.⁵ The operational and financing priorities of the Adaptation Fund state that funding will be provided on full adaptation cost basis of projects and programmes to address the adverse effects of climate change.⁶

2.3 Defining the baseline project and baseline costs

11. The identification of an alternative project in the baseline scenario is essential to establish the baseline cost. In some cases, the baseline project, often known as the business-as-usual scenario, can be relatively easy to determine and estimate the cost. For example, a project retrofitting an existing power plant to reduce its consumption of fossil fuels and/or its generation of emissions would have as its baseline scenario the known cost associated with its continuing operation. The incremental cost could therefore be calculated as the capital cost of the investment necessary to undertake the retrofit, plus or minus the change in operational and maintenance cost resulting from the conversion.

12. When estimating incremental costs of a project, it is important to review costs over the entire economic life of the project or any assets created by it – also known as lifecycle costs. Investments that have higher upfront costs may be more cost effective in the long-run due to lower operation and maintenance costs. These long-term cost savings should be accounted for when estimating incremental cost. For example, a renewable energy project should look at differences in the levelized cost of electricity among alternatives, instead of focusing solely on the initial investment costs. Conversely, projects that have higher operating costs than a baseline project would have higher incremental costs than if the estimation was based on initial investment costs along.

13. Although there may be exceptions, the determination of incremental costs generally is simpler in mitigation activities. For example, an assessment of incremental cost of an adaptation project to improve the resilience of rural populations to weather events in traditionally vulnerable regions is likely to require an analysis of the degree to which the weather events are the result of climate change. Such an analysis might be difficult to undertake in a precise quantitative manner.

14. Annex III presents some additional examples of the different types of projects that GCF may consider and how the issue of incremental costs would arise in each case.

III. Principles

15. A review of practices in the Multilateral Fund, the GEF, the CDM, the Adaptation Fund and the CIFs is included in annex IV. Based on the work of the GCF, four main principles can be adopted for use by the GCF, informed by the review of practices of other funds:

- (a) **Incrementality is a key tool to assess climate rationale.** The use of incremental costs and the need to compare the proposed intervention to a baseline case may provide a

⁴ UNFCCC 2001, Decision 27/CP.7.

⁵ UNFCCC 2005, Decision 3/CP.11.

⁶ UNFCCC/KP/CMP/2006/10/Add.1.

clear and transparent framework to more directly link the proposed activities with climate change;

- (b) **Qualitative approaches connected to a strong theory of change should be used for all funding proposals, at a minimum.** Incremental cost reasoning is essential for determining the rationale for support through the GCF. Demonstrating the reasoning is a better fit with the diversity of possible applications and agency methods than a one-size-fits-all formula. For innovative, transformational projects that rely on policy changes to achieve paradigm shift, qualitative demonstration of incremental cost is far more likely to be feasible. The work of GEF, including its adaptation work through the Least Developed Countries Fund and the Special Climate Change Fund, has used a qualitative approach whereby an incremental reasoning is applied in the process of project design to ensure that GEF funding is focused on the incremental activities necessary to generate global benefits. In this context, a qualitative determination of incremental cost can be incorporated into theory of change;
- (c) **Quantitative approaches should be applied to activities when sufficient data is available.** Both the Multilateral Fund and the CDM have developed approaches to define the baseline scenario and use them to quantify the incremental costs of the supported interventions. This data is more likely to be available for mitigation projects; and
- (d) **Funding for full cost of adaptation can be justified through incremental reasoning and funding for full project costs may be justified under certain circumstances.** The Multilateral Fund, the GEF, the Adaptation Fund and the CIFs provide not only incremental, but also full, support for a host of supporting activities, including capacity-building, barrier-removing activities to climate change, pilot projects designed to demonstrate new technologies, projects where the incremental costs are difficult to distinguish or the plausible baseline project scenario is difficult to determine, projects where the costs of a baseline scenario is zero, and project activities that are linked to the paradigm shift criterion.

IV. Experience with incremental and full cost reasoning in GCF funding proposals

16. Section C.2 of GCF's current Funding Proposal template instructs AEs to "describe the baseline scenario (i.e. emissions baseline, climate vulnerability baseline, key barriers, challenges and/or policies) and the outcomes and the impact that the project/programme will aim to achieve in improving the baseline scenario." Although this description of the baseline scenario is relatively broad, a clear description of the costs of the baseline scenario would be one of the components. It would then be compared to the project and its costs described in section C.3 of the template. This means space exists within the present funding proposal template to incorporate an incremental cost calculation, and AEs are already expected to provide some of the information necessary to do so. Incremental costs could then be quantified in those sections or as part of the economic and financial analyses of the funding proposal. Therefore, the new incremental and full cost calculation can be implemented with limited additional requirements.

17. In the absence of a clear methodology for estimating incremental costs, funding proposals do not always include quantitative estimates of incremental costs or a clear qualitative description of the incremental costs or the baseline scenario. In an internal review of a sample of 22 public sector funding proposals approved at the nineteenth meeting of the Board, 17 contained either a quantitative estimate or qualitative description of the baseline scenario, but only two of those 17 estimated the costs that were incremental to the project. In their requests for funding, four proposals requested full costs, four requested incremental costs, and

14 proposals did not state explicitly whether full or incremental costs were proposed for GCF financing. Incremental and full cost calculation was not applicable to three funding proposals in which GCF financed a credit facility that funded multiple mitigation sub-projects. However, these proposals did not explain how incremental costs would be estimated for sub-projects.

18. This review shows that GCF needs a well-defined approach to determining agreed full costs and agreed incremental costs. With limited additional requirements from AEs, the GCF can suitably implement an incremental cost calculation methodology in its funding proposal submission template and other relevant documentation.

V. Recommended approach

19. A recommended approach for GCF is described below, with a draft calculation methodology contained in annex II. The assessment and improvement of the methodology should be an iterative process and repeated at regular intervals, and an independent evaluation of the policy may be undertaken after a specific period of time consistent with other funding proposal related policies.

5.1 Estimating incremental costs

20. A defined methodology for incremental and full cost is critical to fulfilling the mandates of the Governing Instrument and targeting GCF funding to climate impacts. The discussion above demonstrates that qualitative approaches connected to a strong theory of change can be applied effectively and consistently for all funding proposals, while considering the individual circumstances of countries in relation to lack of historical data and/or low data availability and institutional capacity, especially in LDCs and SIDS. It has also demonstrated that quantitative methodologies can be infeasible in contexts where data is scarce, capacity is limited, or the impacts of climate change are rapidly evolving. Given these facts, GCF should require AEs to employ at least a qualitative methodology for all their funding proposals. As quantitative approaches allow more precise and accurate assessment of incremental and full costs, GCF should require AEs to provide quantitative assessments, in addition to qualitative incremental cost reasoning, when sufficient data and capacity are available. Funding proposals containing only qualitative assessments should explain why quantitative methodologies are infeasible. Funding proposals should not be penalized in terms of priority or funding amount if a quantitative method is not provided, provided the qualitative methodology is faithfully applied.

21. Qualitative approaches connected to a strong theory of change are expected to be elaborated in the funding proposals, which would be reviewed by the Secretariat as part of its second-level due diligence. This qualitative description would include:

- (a) A detailed description of the baseline project scenario, clearly identifying accruing savings between the proposed project and the baseline project;⁷
- (b) A clear identification of project components and associated costs that are directly related to climate change;
- (c) An explanation of how the proposed incremental investments will achieve mitigation or adaptation results or reduce barriers to climate change-related activities; and

⁷ Theoretically, all the benefits arising from the baseline project would be part of the full set of co-benefits from the project. The incremental investment would add other co-benefits or could in fact decrease them (e.g. increasing the resilience to climate change of a road may lead to new design characteristics with higher environmental and social impact risks).

(d) An estimate of the fraction of the costs of each of the components of the funding proposal that are related to those incremental investments.

22. Incremental costs can be estimated quantitatively by incorporating the calculations into a project's economic analysis. The economic cost-benefit analysis already estimates costs for the "with-project" and "without project" scenarios. An additional baseline scenario (i.e. an alternative project that does not result in climate impact) could be produced in a similar format with much of the same data, ensuring consistency and reducing the burden on AEs. It also allows the incremental cost estimate to incorporate lifecycle costs over time, including any maintenance and operation costs.

23. Estimating the incremental costs as part of the economic analysis also avoids biasing the calculations in favour of one type of financial instrument or another. In an economic analysis, the costs of the project are based on the opportunity costs for the use of scarce resources, based in real terms in a constant year currency. As such, the financial instrument used to finance those costs is largely irrelevant.

24. When GCF finances are blended with other financing, one or more co-financiers may have different incremental costs methodologies or requirements. In these cases, the AE would include in the proposal information on co-financiers' methodologies for estimating on incremental cost and select the most practical and feasible approach to assess incremental costs, with explanation on why that particular approach was selected.

25. One year after the adoption of this approach, the Secretariat should review the experience with applying incremental and full cost principles and develop lessons learned and improvements to the methodology. It also will examine any gaps in data or capacity to apply the methodology and propose a strategy for closing these gaps. This assessment and improvement of the methodology should become an iterative process repeated at regular intervals.

5.2 Choosing between incremental and full costs

26. Given the wide variety of countries, results areas and AEs involved in GCF projects, it is prudent to maintain some flexibility in the criteria used to determine whether the GCF funds incremental costs or full costs for any given project. Based on the experiences of other institutions, a number of activities seem suitable for full project costs, including (1) capacity building, (2) barrier-removing activities to climate change, (3) pilot projects designed to demonstrate new technologies, (4) projects where the incremental costs are difficult to distinguish, or the plausible baseline project scenario is difficult to determine, (5) projects where the costs of a baseline scenario is zero. Any activities that GCF considers for full costs should have strong paradigm shift potential with a clear theory of change, so that the extra expense above incremental costs can be seen as an investment to improve the potential for such a shift.

27. As part of the incremental cost estimations described in section 5.1 above, AEs should state clearly in the funding proposal whether they are requesting GCF support for full costs or incremental costs only, and this can be done at the project level or the component level. Funding proposals requesting incremental cost funding should justify their request based on the incremental cost assessments. Funding proposals requesting full cost funding should justify their request based on criteria listed in the paragraph above.

28. Consistent with the Governing Instrument, the Board would retain the discretion to approve funding proposals for full project costs.

5.3 Linkages to other ongoing policy initiatives

29. The final approach to incremental cost calculation and full cost determination should consider and inform prior policy decisions and ongoing initiatives under the integrated policy approach (GCF/B.21/Inf.01), including, but not limited to concessionality and co-financing. Alignment among the incremental and full cost methodology, the concessionality guidance and the co-financing policy is important to determine the overall financial structure of proposed projects/programmes. The methodology for estimating incremental and full costs helps determine which part of the project is eligible to be funded by GCF and which may be better suited for co-financing. The co-financing policy explains how costs funded by other parties are to be classified and reported. Finally, the concessionality guidance and its associated tools determine the appropriate financial instruments and terms financed by GCF to ensure efficiency and effectiveness.
30. The Board may wish to consider aligning the date of effectiveness for any incremental cost policy with other policies to allow a one-time change to the concept note and funding proposal templates.
31. To avoid duplication, the areas proposed to be supported under full cost should not be the same as those under the GCF Readiness and Preparatory Support Programme, where activities deemed eligible include: enabling the NDA or focal point to engage with stakeholders, including fostering private sector engagement; developing strategic frameworks; enabling and supporting national institutions; and supporting the development of initial pipelines of programme and project proposals.
32. Any application of incremental cost methodologies or full cost criteria should be tailored to fit within the existing program framework objectives of specific initiatives for direct access entities, such as enhanced direct access and the simplified approval process, so as not to undermine their effectiveness. The Board may consider exceptions to the incremental cost calculation methodologies for certain ongoing programmes of the GCF, such as SAP, or requests for proposals such as the MSME, EDA, and REDD+.
33. The Secretariat will undertake parallel activities to discuss incremental and full cost principles with AEs, learn about their challenges in applying the principles outlined in this approach, and build capacity among them. These activities will be conducted through the Readiness and Preparatory Support Programme, regional structured dialogues and strategic partnerships.

Annex I: Draft decision of the Board

The Board, having considered document GCF/B.21/03 titled “Incremental and full cost calculation methodology”:

- (a) Adopts the incremental and full cost calculation methodologies described in annex II of this document;
- (b) Decides that the incremental and full cost calculation methodologies in annex II should be implemented on the basis of the following two main principles:
 - (i) Funding proposals must include an economic comparison between the proposed project/programme and the baseline project/programme and clearly identify the project/programme components and their costs that are directly related to climate change; and
 - (ii) The comparison set out in paragraph (b)(i) above should clearly and separately identify differences in lifecycle costs;
- (c) Decides that either the quantitative methodology of the AE or a more qualitative approach may be used when GCF finances are blended with other financing and the incremental costs methodologies or requirements with one or more co-financiers are different;
- (d) Requests the Secretariat to issue technical guidance notes to AEs that provide additional details on the calculation methodologies and to update such technical guidance notes from time to time based on feedback from consultations with AEs, NDAs, ITAP or international experts;
- (e) Decides that funding proposals submitted under the following requests for proposals and pilot programmes will be exempt from the application of this policy: the MSME, EDA and REDD-plus RfPs and the SAP pilot programme;
- (f) Also requests the Secretariat to update the templates for concept notes and funding proposals to reflect the policy and other matters related to the integrated approach to address policy gaps adopted at the twenty-first meeting of the Board, with a view to making these available by the twenty-second meeting of the Board;
- (g) Further requests the Secretariat to design and implement a capacity-building programme, as part of the readiness and preparatory support programme, to support the accredited entities, particularly the direct access accredited entities, to enable them to implement the full cost and incremental cost methodologies and requirements;
- (h) Notes that the policy shall not apply to funding proposals which are in Stage 4 to Stage 7 of the project/programme activity cycle on the date on which the modified funding proposal template referred to in paragraph (f) above is made available.
- (i) Recommends that the Secretariat review the methodologies for incremental and full cost calculation methodologies one year after adoption to develop lessons learned and improvements to the methodology and report back to the Board; and
- (j) Decides to conduct an evaluation of the incremental and full cost calculation methodologies three years after implementation.

Annex II: Incremental and full cost calculation methodologies

I. Objectives

1. The purpose of this document is to outline guiding principles and a methodological approach to estimating incremental costs and full costs that seeks to achieve the following objectives:
 - (a) Further facilitating the application of the GCF Investment Framework, particularly with respect to the effectiveness and efficiency criterion to ensure that GCF funding targets the full costs or incremental costs of climate-related activities as appropriate to the project;
 - (b) Facilitating Secretariat and independent Technical Advisory Panel (ITAP) review and Board decision-making by providing a detailed assessment of the components of a proposed project that are directly related to climate change adaptation and mitigation as opposed to other co-benefits such as economic development;
 - (c) Guiding national designated authorities (NDAs)/focal points and accredited entities (AEs) in articulating climate change considerations in funding proposals;
 - (d) Incorporate into funding eligibility criteria, financial instrument selection, and concessionality policies by having differentiated criteria in those policies depending on whether the activities and related funding requested in a proposal is incremental or not; and
 - (e) Integrate into the results management framework and impact evaluation by more directly linking each activity in a funding proposal to the results and impact more directly related to the climate activities of the GCF.

II. Definitions

2. For the purposes of GCF, incremental costs are the additional expenses incurred with respect to a baseline to produce a new output or an equivalent output in a way that results in mitigation or adaptation impact.
3. The full costs of a project or a component are the baseline costs plus the incremental costs, while the full costs of adaptation refer to the costs of any action needed to adjust natural or human systems in response to climate change. Because the full costs of adaptation are defined in comparison to a baseline scenario absent climate change, it can be classified as a type of incremental cost.

III. Principles

4. GCF's methodology is based on the following principles:
 - (a) **Incrementality is a key tool to assess climate rationale.** The use of incremental costs and the need to compare the proposed intervention to a baseline project scenario provide a clear and transparent framework to directly link the proposed activities with climate change;
 - (b) **Qualitative approaches connected to a strong theory of change should be used for all funding proposals, at a minimum;**

- (c) **Quantitative approaches should be applied to activities when sufficient data is available.** These approaches should use baseline scenarios to quantify the incremental costs of the supported interventions. This data is likely to be available for mitigation projects. It may not be feasible for innovative, transformational projects that rely on policy changes to achieve paradigm shift.
- (d) **Funding for full cost of adaptation can be justified through incremental reasoning and funding for full project costs may be justified under certain circumstances.** GCF will fund full costs for a host of supporting activities, including capacity-building, barrier-removing activities to climate change, pilot projects designed to demonstrate new technologies, projects where the incremental costs are difficult to distinguish or the plausible baseline project scenario is difficult to determine, projects where the costs of a baseline scenario is zero, and project activities that are linked to the paradigm shift criterion.

IV. Process

5. When developing funding proposals, AEs and GCF need to determine the cost of the project, the portion that should be financed by GCF, and the instruments and level of concessionality GCF should use to finance its portion of the costs. The methodology for estimating incremental and full costs helps determine these by estimating the incremental costs related to climate change and setting guidelines for when full cost funding is appropriate. Based on this assessment, GCF and AEs will agree on which part of the project is eligible to be funded by GCF and which may be better suited for co-financing. Following this assessment, the concessionality guidance and its associated tools will be used to determine the appropriate financial instruments and terms for the portion financed by GCF to ensure efficiency and effectiveness. The co-financing policy will explain how those costs are to be classified and reported. See Figure 1 below for an example.

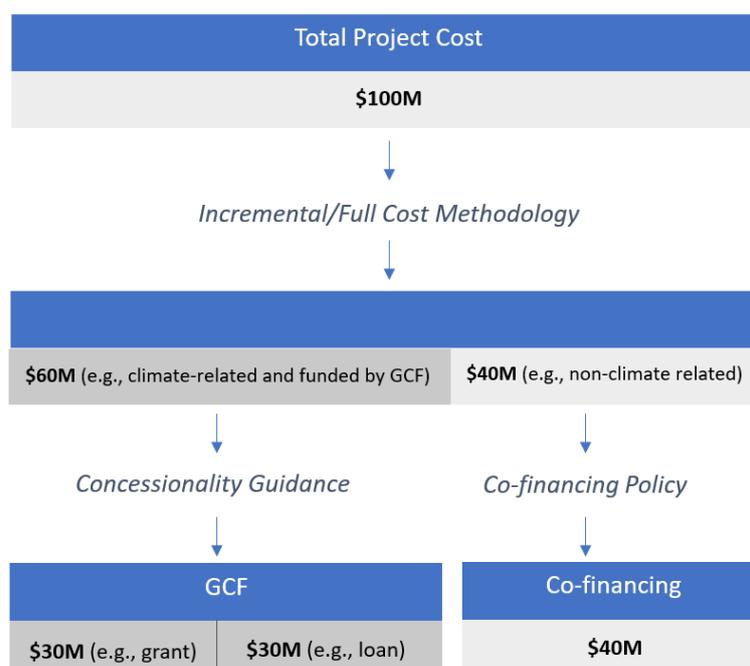


Figure 1: Determination of GCF eligibility and concessionality for a hypothetical funding proposal

6. The diagram above is simplified and shows the process to determine the eligibility and concessionality of a project proposal. However, it is important to note that it does not capture other possible options that may exist for some proposals. For example, in deciding on the level of concessionality, considering the justification provided by the AEs and the guidance and assessment by the Secretariat, there may be cases where the whole amount requested from GCF is a grant. For co-financing, there may be cases wherein co-financiers opt to cover some climate-related costs.
7. When submitting a funding proposal, AEs should explain which project activities are being proposed based on incremental cost reasoning and which are based on a full cost basis. At a minimum, AEs will employ a qualitative approach connected to a strong theory of change. In addition, they will apply a quantitative methodology when feasible.
8. The Secretariat will issue technical guidance notes to address specific issues or clarify ambiguities in the methodology.

V. Qualitative methodology

9. Every funding proposal must include:
 - (a) A detailed description of the baseline project scenario, assessing ongoing and planned activities in the absence of the GCF, identifying differences in lifecycle costs between the proposed project and the baseline project;
 - (b) A clear identification of project components and associated costs that are directly related to climate change;
 - (c) An explanation of how the proposed incremental investments will achieve mitigation or adaptation results or reduce barriers to climate change-related activities; and
 - (d) An estimate of the fraction of the costs of each of the components of the funding proposal that are related to those incremental investments. When feasible, this should include a quantitative estimate based on the methodology in section 6. Funding proposals containing only qualitative assessments should justify why quantitative methodologies are not practical and/or appropriate.
10. AEs will provide the above information in the funding proposal or as a separate annex. The Secretariat will review this information as part of the technical review of the funding proposal package and provide feedback to the AE.

VI. Quantitative methodology

11. When sufficient data and capacity are available, quantitative estimates of incremental costs should be developed in concert with the economic analysis, which forecasts the costs and benefits of the proposed project over its estimated economic lifetime. Each economic analysis submitted to GCF will forecast three scenarios:
 - (a) The **counterfactual scenario** that would exist without the project;
 - (b) The **project scenario**, in which the project is implemented with climate considerations; and
 - (c) The **baseline project scenario**, in which a similar project is implemented without climate considerations.
12. The incremental costs would be calculated as the costs in the project scenario minus the costs in the baseline project scenario. In some cases, the baseline project scenario would be

identical to the counterfactual scenario, effectively making all costs incremental and eligible for funding on the basis of both full and incremental costs.

13. AEs will submit these calculations in spreadsheet format to GCF as an annex to the funding proposal. A written description of the calculations and their underlying assumptions will be included in the funding proposal or a separate annex, along with the qualitative responses to annex II, paragraphs 9(a) through 9(d).

14. The Secretariat will review the files related to incremental cost calculations as part of its second-level due diligence. Funding proposals will not be penalized in terms of priority or funding amount if a quantitative method is not provided, provided the process in section 4 has been followed and the qualitative methodology as in section 5 has been faithfully applied.

VII. Eligibility for full costs

15. Given the wide variety of countries, results areas and AEs involved in GCF projects, GCF maintains flexibility in the criteria used to determine whether the GCF funds incremental costs or full costs for any given project. Any activities that GCF considers for full costs should have strong paradigm shift potential with a clear theory of change, so that the extra expense above incremental costs can be seen as an investment to improve the potential for such a shift. The paradigm shift potential of each proposal will be assessed by the Secretariat and the ITAP.

16. Based on the experiences of other institutions, a number of activities are eligible for full project or component costs, including:

- (a) Capacity building activities;
- (b) Barrier-removing activities to climate change;
- (c) Pilot projects designed to demonstrate new technologies;
- (d) Projects where the incremental costs are difficult to distinguish, or the plausible baseline project scenario is difficult to determine;
- (e) Projects where the costs of a baseline scenario are zero.

17. As part of the incremental cost estimations described in annex II, sections 5 and 6, AEs should state clearly in the funding proposal whether they are requesting GCF support for full costs or incremental costs only, and this can be done at the project level or the component level. Consistent with the definitions in annex II, section 2, funding proposals requesting funding for the full cost of adaptation should justify their request based on the incremental cost assessments. Funding proposals requesting funding for the full cost of a project or component should justify their request based on criteria listed in annex II, paragraph 15 above. The Secretariat may issue technical guidance notes that more clearly define how each of these criteria will be assessed.

18. Consistent with the Governing Instrument, the Board would retain the discretion to approve funding proposals for full project costs.

Annex III: Illustrative examples of how incremental and full costs might be considered in a small subset of hypothetical GCF project types

Case 1 project proposal: construction of a greenfield solar energy plant and transmission and distribution infrastructure to serve an area currently without electrification.

Baseline project scenario in the absence of GCF support: Expansion of generation capacity of existing coal plant in adjacent region and construction of additional grid transmission and distribution infrastructure. The incremental costs of a related GCF project would be the difference in capital investments and operating costs between the solar plant and the baseline project. In such a case, including operating costs could take into account and net out the expected savings generated by the lower operating costs that the solar plant would have.

Counterfactual scenario in the absence of any project: Continued use of off-grid alternatives, such as diesel or kerosene.

Case 2 project proposal: Retrofit of existing small and medium-sized enterprises production processes for higher energy efficiency. In addition to the capital investments required, operating costs initially increase owing to the need to train personnel and calibrate new equipment.

Baseline project scenario in the absence of GCF support: No capital investments in retrofitting and continuation of existing operating costs (i.e. business as usual). The incremental cost of a related GCF project would be the capital investments of the proposed project plus the difference in operating costs and energy costs. Such operating costs may be initially higher for the project than for the existing baseline, but they would be overtaken in time by the savings from higher energy efficiency.

Counterfactual scenario in the absence of any project: Same as baseline scenario, so incremental costs equal the full costs of the project.

Case 3 project proposal: Expansion of port facilities with increased resilience to climate change using construction standards consistent with expected intensity of weather events due to climate change.

Baseline project scenario in the absence of GCF support: Equivalent expansion (i.e. infrastructure necessary to handle a similar amount of tonnage) with construction standards without considering future changes due to climate change. The incremental costs of a related project could consider the additional capital investments required to build to the enhanced standards and the degree to which those standards were required as a result of climate change (versus historically observed weather). A variation of this example would be one in which the proposed project generates additional co-benefits – if, for example, as a result of the enhanced infrastructure to increase resilience the port can handle larger ships than it could otherwise, and such ships generate additional economic benefits. Those additional benefits could be subtracted when calculating the incremental costs.

Counterfactual scenario in absence of any project: Continued operation and maintenance of existing port facilities with no expansion.

Case 4 project proposal: Enhanced livelihoods and resilience of agricultural communities in semi-arid regions.

Baseline project scenario in the absence of GCF support: Project generating similar improvements in livelihoods with interventions consistent with historical weather patterns and addressing the long-term path of soil degradation without considering future changes due to climate change. In this case, as well as in Case 3 above, an additional element of complexity is the need to estimate and reach agreement on the degree to which the proposed intervention is needed because of climate change.

Counterfactual scenario in absence of any project: No change in livelihoods or agricultural practices.

Case 5 project proposal: Strengthening hydro-meteorological services and development of a multi-hazard early warning system.

Baseline project scenario in the absence of GCF support: Continued operation of existing hydro-meteorological systems. While an effort could be made to distinguish between programme elements that are necessary due to climate change and those that are not, the periodic nature of natural disasters means such a determination could be problematic. Given the new technology and technical capacities, it may be more appropriate to finance the project on the basis of full costs.

Counterfactual scenario in absence of any project: Same as baseline scenario, so the incremental costs equal the full cost of the project.

Case 6 project proposal: Integration of climate mitigation and adaptation needs into national development plans.

Baseline project scenario in the absence of GCF support: National development plans without climate mitigation and adaptation needs. Such an investment facilitates new governance approaches that may be transformational, which would be appropriate for financing of full costs.

Counterfactual scenario in absence of any project: Same as baseline scenario, so the incremental costs equal the full cost of the project.

Case 7 project proposal: restoration of mangrove forests in coastal areas, which delivers protection from waves and storm surges, carbon sequestration and other ecological benefits. Most of these benefits are public goods for which no market exists.

Baseline project scenario in the absence of GCF support: continued deterioration of these forests and increasing costs to society. Because the costs of a baseline project would be zero, the project would be funded on the basis of both incremental *and* full costs.

Counterfactual scenario in the absence of any project: Same as baseline scenario, so the incremental costs equal the full cost of the project.

Annex IV: Review of practices in other funds

I. Multilateral Fund for the Implementation of the Montreal Protocol

Mandate and role of incremental costs

1. The Multilateral Fund for the Implementation of the Montreal Protocol (Multilateral Fund) is the financial mechanism that supports developing countries in complying with their obligations under the Montreal Protocol to phase out the use of ozone-depleting substances (ODS) and reduce their use of high global warming potential hydrofluorocarbons (HFCs).
2. As agreed in the Montreal Protocol and its amendments, the Multilateral Fund provides funding to cover only the incremental costs incurred in converting from these substances to more environmentally friendly alternatives. In that regard, funding is approved for the net agreed incremental cost associated with the difference between a proponent's baseline scenario and the converted project. Costs compensated for are those included in a list of categories of agreed incremental costs incurred to convert to non-ODS/non-HFC technologies. This general rule has been refined over a period of years to consider such factors as technology upgrades and economies of scale.

Principles and use of an indicative list of categories of incremental costs¹

3. The indicative list of incremental cost categories is applied to proposals under several principles. It calls for the incremental cost to be assessed based on the most cost-effective and efficient option available to achieve the reductions. In addition, it calls for both savings and benefits to be considered when calculating incremental costs. This latter point is particularly important, as, if the benefit generated to the project's sponsor exceeds its cost, the project is not eligible for Multilateral Fund support. The indicative list covers three types of activities – those that seek to (i) facilitate the supply of ODS substitutes; (ii) eliminate the use of ODS as an intermediate good in manufacturing; and (iii) eliminate the end use of ODS. For each one of these areas, an indicative list of cost categories eligible for compensation is defined. For example, with respect to the supply of ODS substitutes, there is a list of 11 categories of incremental costs eligible for funding that includes capital investments, operational costs, training and research. In practice, it is up to the Multilateral Fund's Executive Committee to decide how to apply the list, and to determine whether and to what extent costs not on the list should be eligible. For example, agreed costs for capacity-building are not on the indicative list – yet they have been fully supported by the Multilateral Fund.

Calculation of incremental cost and approval process

4. Over time the Multilateral Fund gained significant experience in estimating incremental costs for many of the conversions it supports. This enabled it to define a range of cost-effectiveness thresholds for incremental costs for specific types of activities based on the cost of the tonnes of ODS reduced. Additional experience also enabled the Multilateral Fund to modify those allowable costs further to take into consideration such factors as economies of scale for smaller projects and lower consuming countries. The Multilateral Fund secretariat verifies the consistency of these calculations as well as the eligibility of expenditures as per the indicative list of categories of incremental costs during the process of funding proposal review. One final

¹ This discussion is based on the Multilateral Fund's *Policies, Procedures, Guidelines and Criteria as of April 2017*.

important factor related to the Multilateral Fund's focus is that the Multilateral Fund generally pays for the net incremental capital and operational cost of converting an existing facility from the use of an ODS or HFC towards the use of a non-ODS or non-HFC. This payment for global benefits is virtually always in the form of a grant. The Multilateral Fund does not pay, for example, for the incremental cost of expanding an existing facility to use a non-ODS or non-HFC technology or building a new greenfield plant that will use a non-ODS or non-HFC technology.

II. The Global Environment Facility

Mandate and role of incremental costs

5. The Global Environment Facility (GEF) is one of the entities of the financial mechanisms supporting five major environmental conventions, including the UNFCCC. The instrument for the establishment of the GEF states that it provides "new and additional grant and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits".² In this case, the GEF provides resources to cover the difference in costs between a baseline project that would provide only national benefits and one that would provide global ones. The GEF website explains this concept as follows: "for example, choosing solar energy technology over coal or diesel fuel meets the same national development goal (power generation), but is costlier. GEF grants cover the difference or 'increment' between a less costly, more polluting option and a costlier, more environmentally friendly option."³

Use of incremental cost: from incremental cost assessment reporting to incremental reasoning

6. In 2006, the GEF Evaluation Office conducted a review of the application of incremental cost assessments in the project approval process and found that while the incremental cost concept underpinned the design of GEF projects, there was substantial confusion among stakeholders regarding interpretation of this concept. In particular, there was no consensus as to whether incremental costs were meant to be a specific quantitative measure, or a more qualitative form of logic or reasoning used during project design to separate the "incremental" aspects of the project seeking to provide global benefits. The GEF incremental cost guidelines that lay out the requirements for annex reporting in project documents were rarely used, and there was an absence of commonly-accepted "best practice" for incremental cost assessment. The review concluded that incremental cost assessment and reporting required until then did not add value to project design, documentation and implementation, as the bulk of effort was expended on reporting ex post facto, at the end of project formulation, rather than connecting it to the project design. It was recommended that incremental cost assessment and reporting should be dropped as requirements for GEF projects, and that focus should be on integrating incremental *reasoning* into project objectives and design. Incremental cost assessment and annex reporting procedures did not enhance either the technical quality of GEF projects, the process of negotiation and agreement that is fundamental to project design and decision-making, or the integration of incremental reasoning and other GEF principles. The original idea that it would be possible to develop a quantitative "methodology" that would be universally applicable and would meet the goal of determining incremental cost was clearly unrealistic, according to the review.

7. As a result of this review, a new set of guidelines on incremental costs, currently in use, was approved by the GEF Council in 2007. These guidelines focus efforts on a more qualitative

² GEF. 2015. *Instrument for the Establishment of the Restructured Global Environment Facility*. Article 1.

³ Available at <<https://www.thegef.org/documents/incremental-costs>>.

approach underpinned by five steps geared towards requiring incremental reasoning as part of project design: (i) determination of the environmental problem, threat or barrier, and the baseline scenario (i.e. what would happen in the absence of the GEF intervention?); (ii) identification of the global environmental benefit (i.e. the incremental benefit that the GEF is enabling); (iii) development of the result framework of the project describing both the baseline and the incremental activities to achieve the global benefits; (iv) provision of the incremental reasoning; and (v) negotiation of the role of co-financing. In fact, the vast majority of the projects funded under the GEF provide grants to cover the incremental cost of the global benefit. The remainder is meant to be covered by co-financiers with whatever instrument they negotiate with the project partner.

III. Clean Development Mechanism

Mandate and role of baselines methodologies

8. The Clean Development Mechanism (CDM), one of the Flexible Mechanisms defined in the Kyoto Protocol, assists industrialized countries in meeting part of their emission reduction commitments by buying Certified Emissions Reduction units from CDM projects in developing countries. To establish eligibility, projects must show the amount of emission reductions achieved when compared with a baseline, such as a reference baseline project. This baseline is established using CDM methodologies that should be based on (i) existing actual or historical emissions, as applicable; or (ii) emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment; or (iii) the average emissions of similar project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category. Following these principles, the CDM has reviewed and approved close to 200 methodologies as of its most recent update of the *CDM Methodology Booklet* in November 2016. The appropriate methodology is selected based on the project's sector (e.g. energy, manufacturing, construction, transport) and applied technology (e.g. biomass, grid electricity, off-grid electricity, renewable thermal energy).

Incorporation into project proposal

9. Project proponents use one of the approved methodologies to estimate the emissions generated by the baseline project and to monitor the expected reduced emissions from the proposed project. Proponents can use alternative methodologies, particularly when these are needed to adapt to national circumstances, provided that they are submitted for technical review by the CDM. These methodologies can also be used to define standardized baselines for specific countries (e.g. cookstoves in Senegal).

IV. The Adaptation Fund

Mandate and role of incremental costs

10. The Adaptation Fund, established under the Kyoto Protocol, finances projects and programmes that help vulnerable communities in developing countries adapt to climate change based on country needs, views and priorities. Through its financing of concrete adaptation projects and programmes, the Adaptation Fund has gained experience and expertise in applying "climate change adaptation reasoning" to projects, such as vulnerability criteria that are used to prioritize projects. The Adaptation Fund relies on the definitions of "incremental" and "transformational" adaptation developed in the by the IPCC. According to these definitions,

incremental adaptation involves adjustments to maintain the essence and integrity of existing systems and functions. However, climate changes may reach a scale that exceeds the capacity of human actors and/or natural systems to adapt through incremental adjustments, which would require a transformational adaptation response to avoid further adverse outcomes. Both the Adaptation Fund and the Fifth Assessment Report of the IPCC note that transformational adaptation is relatively new concept in the adaptation literature, and it lacks clear operational definitions to differentiate it from incremental costs.

Use of incremental and transformational adaptation⁴

11. Given the unclear definition of transformational adaptation, the Adaptation Fund identified some examples of outputs with potentially transformative characteristics: introduction of new technologies or practices to a region or system, new structures of systems of governance and shifts in location or nature of activities. Even within this framework, additional criteria were used to better define each characteristic and its transformative potential. A review of Adaptation Fund projects/programmes identified a potentially transformative output in eighteen of the twenty-one projects/programmes analysed. The review mentioned two common examples of outputs with transformative potential: the development of planning and policy mechanisms that integrate climate risk assessments and adaptation measures, and the strengthening of technical and human capacities necessary to develop such mechanisms.

V. Climate Investment Funds

Mandate and role of incremental costs

12. The Climate Investment Funds (CIFs) have two main funds: the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF). SCF has three programmes: the Forest Investment Program (FIP), the Pilot Program for Climate Resilience (PPCR) and the Program for Scaling Up Renewable Energy in Low Income Countries (SREP). The relevance and treatment of incremental costs vary according to the mission of each one of them:

- (a) **CTF:** CTF provides resources to scale up low-carbon technologies with significant potential for long-term greenhouse gas emission savings. While the CTF Governance Framework does not explicitly refer to incremental cost criteria, it states that “CTF financing will provide a grant element tailored to cover the identifiable additional costs of the investment necessary to make the project viable”.⁵ Further guidance prepared as part of the CTF’s private sector operation guidelines states “Financial support through the CTF should be targeted at global benefits of the projects and proportional to incremental costs of their achievement.”⁶ Consistent with this approach, project proponents identify in their proposals the incremental costs of the proposed activities;
- (b) **FIP:** FIP provides funding to address the drivers of deforestation and forest degradation both within and outside the forest sector to support forests and development and address climate change challenges. Given the nature of its mandate, FIP can support the full costs of projects and therefore an explicit assessment of incremental costs is not required;

⁴ Adaptation Fund, 2015. *Analysis of Climate Change Adaptation Reasoning in Project and Programme Proposals*. Approved by the Board. AFB/PPRC. 17/5, 10 December 2015.

⁵ *Governance Framework for the Clean Technology Fund*. 2008.

⁶ *CTF Private Sector Operations Guidelines*. 2012.

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- (c) **PPCR:** PPCR supports climate change adaptation and resilience-building by funding activities to pilot and demonstrate ways to integrate climate risk and resilience into core development planning, while complementing other ongoing activities. While PPCR does not explicitly focus its financing on incremental activities, its focus on supporting pilot activities makes this issue less important. The additionality of PPCR lies in contributing to demonstrating the viability of certain adaptation activities and therefore in this process it may support the full costs of activities; and
- (d) **SREP:** SREP supports the demonstration in low-income countries of the economic, social and environmental viability of renewable energy. In developing its financial instruments, SREP has emphasized the need to focus resources to address the “incremental risks” associated with renewable energy projects as opposed to the usual technical and financial risks that other baseline projects may have and which could be mitigated through other mechanisms.
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