

Green Climate Fund

Business Model Framework: Objectives, Results and Performance Indicators

GCF/B.04/03

10 June 2013

Meeting of the Board

26-28 June 2013

Songdo, Republic of Korea

Agenda item 4 (a)

Recommended action of the Board

It is recommended that the Board:

- a) Takes note of the information presented in document GCF/B.04/03 *Business Model Framework: Objectives, Results and Performance Indicators*;
- b) Provides guidance on the policy matters and options regarding the objectives, results and performance indicators for the Fund; and
- c) Adopts the draft decision presented in Annex I to this document.

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Objectives, Results and Performance Indicators

I. Introduction

1. At its March 2013 meeting in Berlin, Germany, the Board requested the Interim Secretariat to undertake work on a number of documents on the Fund's business model framework with the assistance of consultants (decision B.01-13/06). One of the documents to be prepared for consideration by the Board at its June 2013 meeting addresses objectives, results and performance indicators for the Fund, specifically:

- “(i) An analysis of the objectives for the Fund, including the results it aims to achieve; and*
- (ii) Performance indicators for measuring performance at the project, programme and national levels and the overall performance of funded activities.”*

2. The purpose of this document is to present to the Board an assessment of options of objectives, result areas and performance indicators for the Fund which it could adopt to attain its objectives. This document should be read in conjunction with the five other documents on the business model framework.¹

3. The Governing Instrument for the Fund provides specific guidance on objectives, results and performance indicators for the Fund:

Paragraph 2: “The Fund will contribute to the achievement of the ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC). In the context of sustainable development, the Fund will promote the paradigm shift towards low emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.”

Paragraph 3: “[...] The Fund will play a key role in channelling new, additional, adequate and predictable financial resources to developing countries and will catalyse climate finance, both public and private, and at the international and national levels. The Fund will pursue a country-driven approach and promote and strengthen engagement at the country level through effective involvement of relevant institutions and stakeholders. The Fund will be scalable and flexible and will be a continuously learning institution guided by processes for monitoring and evaluation. The Fund will strive to maximize the impact of its funding for adaptation and mitigation, and seek a balance between the two, while promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach.”

Paragraph 58: “A results measurement framework with guidelines and appropriate performance indicators will be approved by the Board. Performance against these indicators will be reviewed periodically in order to support the continuous improvement of the Fund's impact, effectiveness and operational performance.”

¹ GCF/B.04/04 to 08.

II. Range of objectives for the Fund

2.1 Objectives relevant to the operationalization of the Fund

4. In this Section, the focus is on operationalization of the Fund, and in particular guiding the development of result areas and related performance indicators. In order for the Fund to be able to achieve its objectives, it will be crucial for it to mobilize resources at scale. Inter-linkages between its objectives, results, performance indicators and results management framework, including prioritization criteria, will be important in order to determine how the Fund will allocate its resources. The Fund's results management framework will be covered in a separate document to be brought forward to the Board for consideration at its September 2013 meeting.

5. In supporting the shift to low-emission and climate-resilient development pathways, the Fund would also set a roadmap which could be used by other climate finance channels. These channels could support accompanying activities, such as capacity building and readiness, which would enhance overall impact. This would necessitate coordination with other mechanisms, which is discussed in paragraph 11. A number of Fund's objectives and principles are directly relevant to potential result areas for the Fund. These are further elaborated in Chapter III. The Governing Instrument and views of the Board emphasize that the objective of the Fund is to bring about a "paradigm shift" towards low-emission and climate-resilient development pathways and that the Fund should be transformational. From an operationalization point of view, the key question is how this should be achieved.

6. Some design considerations about how to achieve this objective, as well as possible trade-offs, are:

- (a) **Broad scope:** Transformational change requires a broad scope of activities by the Fund. Bringing about transformation will likely require action through a portfolio of approaches, including at the policy framework level, and by delivering technological and behavioural change. To assist countries adequately, the Fund will need to develop the capacity – directly or through intermediaries – to operate at all these levels;
- (b) **Capacity and readiness:** Achieving a paradigm shift will involve investing in capability to design and implement broad system change, as well as in readiness for transformational change leading to greater climate resilience and lower emission economies. This suggests a strong need for capacity building and maintenance activities that accompany Fund investment;
- (c) **Targeting change at multiple time scales:** While there may be many short-term opportunities that yield significant gains in mitigation and adaptation, transformational change also requires giving appropriate emphasis to long-term activities. These activities with long payback times, such as research and development, or institutional capacity building, are likely to have more uncertain and less measurable impacts. Since bringing about system change often requires other enabling factors, outcomes may be more difficult to ensure or track;
- (d) **Avoiding lock-in:** Particularly in rapidly changing developing economies and societies, avoiding lock-in to high-carbon, low-climate resilient paths is an important avenue to transformative change. These lock-ins may be technological, regulatory or behavioural in nature. Identifying and avoiding lock-ins is likely to be a particularly important role for the Fund;
- (e) **Activities at scale:** Enabling transformation will require the Fund to play a role in ensuring activities are delivered at scale, such as moving from project to programmatic approach. This should also be reflected in the volume of climate finance and may require

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- facilitating rapid learning across countries, as well as providing global services such as mechanisms for global knowledge exchange;
- (f) **Mechanisms to reduce Risk:** In seeking to increase the global flow of private capital in areas that have otherwise lacked it, the Fund will need to consider mechanisms that reduce the financial risk perceived by project investors;
- (g) **Judicious use of results-based frameworks:** Results-based frameworks can enhance the effectiveness and accountability of the Fund. At the same time, results-based frameworks will need to be carefully designed to avoid disincentives to long duration activities with more uncertain and less measurable outcomes.
7. A country-driven approach to the Fund's work, as well as attention to co-benefits and to the needs of particularly vulnerable countries are all important principles. It is necessary to explore how these principles may be operationalized in practice, as well as the interaction – positive and negative – with other principles.
- (a) **Leveraging national plans and strategies:** Critical to ensuring country leadership and ownership is consistency with national adaptation plans (NAPs), nationally appropriate mitigation actions (NAMAs) and other related national plans and strategies. However, there is a possible trade-off between national ownership and transformational change, if first generation plans and strategies are insufficiently far-reaching. This trade-off can be avoided by emphasizing the strengthening of national capacity to develop plans that stimulate creative and transformational change, in the context of national priorities and sustainable development;
- (b) **Shifting from co-benefits to multiple benefits:** In both mitigation and adaptation spheres, national action is much more likely to win political and implementation support if it is consistent with, or even led by, broader development benefits. Indeed, in many cases, climate benefits are the “co-benefits” to primary development actions. It may be fruitful to conceptualize the link between development and climate as an effort to simultaneously seek multiple objectives, rather than labelling one or other primary and “co-benefits”. An important first step is to develop clear methodologies to assess the impact of a policy or action on multiple benefits, including the synergies and trade-offs. Methodologies now exist that provide a way to do this;ⁱ
- (c) **Prioritizing the criteria:** Where analysis demonstrates that there are clear choices between actions that yield substantial development gains versus those that yield primarily climate gains (particularly on mitigation), the Fund faces a strategic choice. The former type of action is likely to be implemented even without Fund's support, but these are also those with the highest levels of country ownership. By contrast, those that yield only global climate benefits are less likely to be implemented without Fund's support but will have low levels of country ownership.
- (d) **Mapping financial instruments in regulatory frameworks:** Not all options available to the Fund will work in all contexts. In some cases, the in-country policy and regulatory framework may shape the optimal choice of instrument available to the Fund.

2.2 Approach towards a short-term vision for the Fund

8. **Initial approach.** Drawing on the discussion above, the overall approach of the Fund could be a fully comprehensive approach. The Fund will respond to the priorities identified by each recipient country. These priorities could be drawn from a full range of intervention strategies – policy/regulatory, technological and behavioural. The priorities defined by a recipient country would enable it to achieve a paradigm shift towards low-emission and climate-resilient development pathways. The capacity to do so will have to be developed over

time, but the objective would remain constant. This approach would likely yield the highest impact across all of the Fund's objectives discussed above.

- (a) **Pros:** This approach is entirely consistent with a country-driven approach, reduces risk that the Fund's resources are concentrated in a few countries, and enhances the ability to achieve transformational impact.
- (b) **Cons:** Substantial Fund capacity is required to address the full scale of needs across all countries, sectors and approaches.

9. At a later stage in the Fund's evolution, it may become necessary for the Board to prioritize and create balance in the Fund's activities and their impacts. The following options could provide a rationale for such prioritization, however, they may also be adopted in parallel with each other:

- (a) **Option 1. Strategic focus on climate mitigation and adaptation.** The Fund would develop a strategic vision, driven by aggregate mitigation impact and a limited scope of adaptation requirements driven by the vulnerable countries and populations. This approach would require the Fund to build institutional capacities to complement this strategic focus. Under this Option, co-benefits would not be a basis for selecting the Fund's emphasis areas, but the co-benefit impact of the Fund's support could be tracked and reported. One possible further approach is for the Fund to play a more limited, barrier-removal role with limited financing to facilitate actions with high co-benefits, and a more direct financial role in actions with low co-benefits. This Option would likely entail large impact across the objectives discussed above.

- (i) **Pros:** A strategic focus potentially raises the prospects for effectiveness in achieving outcomes, albeit in a few key areas. Allows the Fund to develop capacity in a few core areas.

- (ii) **Cons:** Less priority given to country ownership; likely concentration on relatively few countries, especially for mitigation programmes.

- (b) **Option 2. Strategic focus on maximizing co-benefits through strong synergy with sustainable development.** The Fund would limit its focus areas to those that maximize synergies with the sustainable development agenda. In the case of mitigation, this implies choosing areas of work that maximize co-benefits as determined by each country. For adaptation, this implies greater country input into areas of focus than in Option 1. These areas would have to be agreed in coordination with countries, but, once agreed, would form a limited sub-set of all possible sectors and approaches. This Option would likely ensure a country-driven approach but may be less effective in meeting other objectives discussed above than Option 1, especially its broad scope.

- (i) **Pros:** Provides larger scope for country ownership. Requires broad Fund capacity, but less than in Option 1;

- (ii) **Cons:** Limits focus on direct mitigation and adaptation benefits. Some actions with high co-benefits would arguably have been undertaken in any case in the absence of Fund's support. Would also require wide scope of capacity in Fund to manage a broad portfolio.

10. Each of these three approaches/options could further be differentiated along two dimensions:

- (a) **Extent of emphasis on long-term results:** The Fund could be focused on achieving short-term gains, in order to demonstrate rapid results, and, in particular, to ensure greenhouse gas (GHG) reduction in the short-term is consistent with the overall goals of the United Nations Framework Convention on Climate Change (UNFCCC). However, a short-term emphasis by itself is unlikely to result in long-term transformational change. The latter will require a different set of institutional capabilities, such as the engagement

in research and development (R&D), ability to work closely with countries to identify and avoid lock-ins or potentially maladaptive paths, and to enhance policy frameworks. In practice, the Fund will likely need to work across both short and long-term time frames, but the ration between the two needs to be determined. A possible choice for the Fund could be to prioritize action on selected “flagship” programme areas, which enable both shorter-term benefits as well as longer-term paradigm shift at a global scale.

- (b) **Extent of emphasis on global public goods:** The effectiveness of global action in mitigation and adaptation would be enhanced by provision of global public goods, particularly relating to R&D, pilot programmes and knowledge sharing. On the latter, for example, there is currently a multiplicity of efforts – both through multilateral and bilateral public agencies and through network-based mechanisms – for knowledge sharing. However, these tend to be diffused, with limited ability to capture complementarities across knowledge areas. An important point for the consideration of the Board is the extent to which the Fund will step into a global knowledge sharing and coordinating mode. The reason why it would be more appropriate for the Fund to promote global public goods, in contrast to other financial mechanisms, is the central role envisaged for it as the main global mechanism for climate finance. This would contribute to intellectual as well as to financial leadership in this transformative process. In this regard, the Fund can bring additional value to the global climate finance architecture. Doing so will require building high communication capacity, and potentially also research capacity. Possible ways of accomplishing this include:
- (i) Clearing house for existing efforts. Assessing the extent of existing provision of public goods by agencies and networks, and supporting the development of their capacities to overcome gaps and serve as a high-level clearing house for existing efforts;
 - (ii) Comprehensive knowledge hub. Deliberately developing the capacity to serve as a comprehensive knowledge hub;
 - (iii) Coordination of R&D and pilot-testing. Developing the capacity to engage in coordination of R&D and pilot-testing new technologies.

11. **Relationship to other funds:** There are several other actors engaged in climate change-related finance, notably the Global Environment Facility (GEF), Adaptation Fund, Climate Investment Funds (CIFs), the multilateral development banks (MDBs) and various bilateral funds. Coordination of the Fund’s activities with other climate-related programmes or sources of finance should be encouraged, as long as coordination facilitates the achievement of the overall objective of the Fund. In the long-term, however, the Fund should become the main global mechanism for climate finance. As an overarching assessment, there is considerable overlap between the focus areas of other funds and the result areas presented below. The opportunities for transformation lie in how these options are scaled, combined and implemented, especially with respect to country programming. The climate finance focus for the Fund and complementarity with other climate finance actors should be assessed more closely in the future.

III. Result areas for the Fund

3.1 Overview of options for result areas

12. In this Section, for each result area, the pros and cons are discussed with respect to the following three objectives:

- (a) Aggregate impact potential;

- (b) Development co-benefits, based on lessons learnt from past efforts; and
- (c) Transformative impact potential.
13. Table 1 below lists the priority result areas identified through an assessment of these three objectives. These areas are not mutually exclusive.

Table 1. Overview of priority result areas.

Mitigation	Option M ₁ :	Reducing energy use from buildings and appliances
	Option M ₂ :	Enabling reduction in the emission intensity of industrial production
	Option M ₃ :	Increasing access to transportation with low-carbon fuels
	Option M ₄ :	Providing households with access to low-carbon, modern energy
	Option M ₅ :	Supporting the development, transfer and deployment at scale of low-carbon power generation
	Option M ₆ :	Reducing emissions from agriculture and related land use management
	Option M ₇ :	Supporting implementation of the phased approach to REDD+
Cross sectoral	Option C ₁ :	Facilitating design and planning of sustainable cities
	Option C ₂ :	Joint mitigation and adaptation approaches for the integral and sustainable management of forests
Adaptation	Option A ₁ :	Support across the full range of adaptation result areas
	Option A ₂ :	Support for a selective set of sectoral result areas
	Option A ₃ :	Support for selected themes cutting across result areas (“flagships”)
	Option A ₄ :	Facilitating capacity for programmatic and transformative activities
	Option A ₅ :	Facilitating scaling up of effective community-based adaptation (CBA) actions
	Option A ₆ :	Supporting coordination of public goods such as “knowledge hubs”

3.2 Low-emission development pathways – priority mitigation result areas

14. In order to enable developing countries to carry out a paradigm shift towards low-emission pathways, a range of mitigation options can be integrated into their sustainable development strategies. Annex II provides a table summarizing co-benefits across mitigation result areas based on economic, energy security, social and environmental co-benefits. The pros and cons laid out in this Section address mitigation potential, potential for lock-ins and co-benefits at a global level. However, more detail could be reached by assessing these at the country level. In addition, this Section provides an indication of the timeframe for realizing mitigation potential: near-term (0-10 years); medium-term (10-20 years); and long-term (20-40 years). Presented result areas are chosen from a variety of possible options based on their feasibility and appropriateness so as to present the best options in respect to both project and programme levels, taking into account the need for immediate results as well as long-term transformative impact, which could lead to large-scale emission reductions due to early lock-in to low-emission technologies.

- (a) **Option M₁. Reducing energy use from buildings and appliances** (time frame: near-term). This includes energy used in lighting, heating and cooling buildings and by appliances. The mitigation potential in residential buildings exceeds by far that in commercial buildings in developing regions.ⁱⁱ Reducing policy risk from hidden and transaction costs to customer adoption is a key gap. Measures could include support for: appliance standards and building design code; institutional capacity building to enforce standards; commercialization of affordable high-efficiency appliances; and information campaigns and technical assistance:

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- (i) **Pros:** High mitigation impact potential and the opportunity to avoid lock-in of inefficient infrastructure. A fifth to a third of total end-use energy reduction potential in developing countries lies in buildings. Reducing energy use has medium to high co-benefits at the household, industry and national levels. Many efficiency measures offer short paybacks and reduced energy bills to households and businesses. The overall reduction in demand can reduce energy import dependence.
 - (ii) **Cons:** Effective implementation is a challenge. Adoption lags potential due to market barriers, such as owner-tenant split incentives. There may be high transaction costs due to fragmented, dispersed deployment and weak regulatory capacity, among other.ⁱⁱⁱ Past efforts reflect these barriers. Only one per cent of credits from regular clean development mechanism (CDM) projects have been attributed to demand-side energy efficiency.^{iv}
- (b) **Option M₂. Enabling reduction in the emission intensity of industrial production** (time frame: near-term and medium term). This includes two key types of measures: improving emission efficiency through fuel-switching and improving the productivity of energy use:
- (i) **Pros:** High mitigation potential, comprising around 50-60 per cent of final energy use reduction alone. Medium co-benefits for energy security from reduced energy use and increased competitiveness of industry. Although mitigation potential is concentrated in emerging economies, co-benefits are widespread. In their technology needs assessments (TNAs), 80 per cent of least-developed countries (LDCs) included industries, and 35 per cent and 42 per cent of countries included energy efficiency and fuel-switching, respectively, as priority technologies.^v
 - (ii) **Cons:** Adoption lags potential due to market barriers, such as the difficulty in identifying incremental costs and impact as well as information barriers. Programmatic targets are difficult to define in heterogeneous industries with limited information and low institutional capacity.
- (c) **Option M₃. Increasing access to transportation with low-carbon fuels** (time frame: medium to long-term). Measures could include: acceleration of the deployment of public transportation infrastructure in mega-cities in developing countries; support for the commercialization and deployment of high-efficiency, low-polluting vehicles and related supporting infrastructure; support for the development of advanced low-carbon transport fuels; and encouraging a shift in freight transport from road to rail:^{vi}
- (i) **Pros:** Mitigation impact grows from low in the present to high in the long-term. Transport sector-related energy reductions comprise a growing share of final energy reduction potential, up to 28-41 per cent in 2040.^{vii} In the long term, the electrification of transport is an important vehicle of decarbonization. High development co-benefits, such as reduced local pollution, accidents, and congestion;
 - (ii) **Cons:** Significant knowledge gap in mitigation potential and costs, rebound effects, consumer behaviour and the relationship between low-carbon infrastructure and lifestyle choices. In the CDM, the majority of transport projects were rejected on methodological grounds.^{viii}
- (d) **Option M₄. Providing households with access to low-carbon, modern energy** (time frame: near-term). This could include support for: the deployment of decentralized renewable energy-based systems in regions that are beyond viable reach of central grid investments, such as in rural regions of sub-Saharan Africa; the

deployment of improved cook stoves with a net reduction in long-term and short-lived climate pollutants:

- (i) **Pros:** High development benefits from the reduction in premature deaths due to indoor air pollution (premature deaths today total 4 million per year)^{ix}, reduced fuel collection time, increased time for children's education, among others.^x There are 1.4 billion people without access to electricity, and 3 billion who cook with solid fuels. Improved energy access also increases climate resilience (see Section 3.4). Decentralized electric systems have the potential to provide more reliable service, and enable low to medium mitigation impacts, depending on income growth in deployed areas;^{xi}
 - (ii) **Cons:** Highly uncertain and regionally varied mitigation impacts from modern cook stoves due to dependence on types of fuel and harvesting techniques. GHG emissions reduction impacts from improved combustion alone likely to be low, but black carbon reduction may have a higher impact in regions where households burn coal and kerosene.^{xii} Technology adoption challenging due to limited data on user preferences. In many country funding programmes are already in place (e.g. China and India), as well as by the Global Alliance for Clean Cookstoves.
- (e) **Option M₅. Supporting development, transfer and deployment at scale of low-carbon power generation technologies** (time frame: near to medium-term). Measures could include: support for the deployment of affordable advanced, low-carbon power generation technologies; expansion of, and support for, improvements in grid technologies that may be necessary for the large-scale deployment of low-carbon energy sources. R&D in carbon capture and sequestration could also be considered:
- (i) **Pros:** High mitigation impact. The penetration of low-carbon technologies in electricity production is projected to increase from 33 per cent in 2010 to around 80 per cent by 2035 in scenarios of climate stabilization at 450 parts per million (ppm).^{xiii} With increasing electrification of transport, the mitigation potential for decarbonizing electricity increases. Low to medium development co-benefits achievable from reducing mercury and other pollution, decrease in mining fatalities as production is reduced. Fuel supply diversification improves energy security;
 - (ii) **Cons:** Relatively popular option in CDM and other climate finance initiatives, however, mostly on a small-scale. This makes it difficult for the Fund to carve out a niche. If costs to consumers remain higher than fossil fuel-based power, higher electricity costs could negatively affect economic and social outcomes, at least for a part of these sort of interventions.
- (f) **Option M₆. Reducing emissions from agriculture and related land use management** (time frame: near to medium-term). Measures could include: reduction of soil and biota carbon losses from improved agricultural practices, such as switching from tillage to no-till cropping; reductions of direct (e.g. tractors) or indirect (e.g. fertilizer production) emissions resulting from fossil energy use in agriculture; reductions in non-CO₂ emissions from cropping and animal husbandry;
- (i) **Pros:** High development co-benefits for climate resilience, productivity, and freeing land for other uses. Among agriculture-related options, relatively high mitigation potential from lowering waste in distribution;^{xiv}
 - (ii) **Cons:** Many areas of agriculture and land-use change (aside from sequestration) may offer only moderate mitigation potential, although the impact is likely to vary by region.

- (g) **Option M7. Supporting implementation of the phased approach to REDD+** (time frame: near-term). Since there is an agreed phased approach to REDD+ within the UNFCCC, which is supported by funding programmes of bilateral and multilateral agencies, this result area follows a similar approach. The phases for consideration are:
- (i) Phase 1: Development of national strategies or action plans, policies, and capacity building;
 - (ii) Phase 2: Implementation of national policies and national strategies or action plans and results based REDD+ demonstration activity;
 - (iii) Phase 3: National results-based REDD+ actions to be fully measured reported and verified;

There are already a variety of bilateral and multilateral REDD+ funding programmes targeting Phase 1, with a limited focus on Phases 2 and 3. Therefore, in order for the Fund to demonstrate clear 'additional' impact, it would be advisable to focus on Phases 2 and 3, complementing the achievements of other REDD+ funding programmes in supporting countries as they transition out of Phase 1.

- (iv) **Pros:** Medium to high mitigation impact. Tropical deforestation and land-use change causes approximately 15 per cent of annual GHG emissions globally.^{xv} The Fund is well positioned to build on readiness activities supported by multilateral and bilateral donor programmes and provide finance at scale;
- (v) **Cons:** Early progress in REDD+ indicates that it is a more cost-intensive mitigation option than had previously been estimated.^{xvi} There is currently uncertainty regarding the modalities for financing 'payments for results' based REDD+.

15. The successful implementation of many of the above mitigation options is likely to require institutional and social adjustments related to technology acceptance, regulatory frameworks, and planning and policy design and implementation. The Fund can have multiple roles in facilitating and accelerating these shifts. First, the Fund may consider working with countries to build long-term institutions capable of identifying strategies and plans that achieve GHG mitigation while maximizing co-benefits. Second, the Fund may assist countries in developing a programmatic approach to achieving a paradigm shift in the result areas identified above, with a focus on leveraging other sources of finance and removing barriers to implementation.

3.3 Priority result areas: cross-sectoral

16. As a result of increasing action in mitigation and adaptation globally and in the research on synergy between the two rather distinct fields, the number of cross-sectoral result areas may increase in the future. The following sub-paragraphs outline cross-sectoral result areas that are distinctly cutting across mitigation and adaptation:

- (a) **Option C1. Facilitating the design and planning of sustainable cities** (time frame: medium to long-term). Measures could include: support of the integrated development of urban space, including buildings, transport and the zoning of commercial and industrial activity, incorporating infrastructure that promotes low-emission and climate-resilient development and addresses urban vulnerability:
 - (i) **Pros:** Today, 60 to 80 per cent of energy use is in cities.^{xvii} Organizing mitigation efforts around city development creates the opportunity to generate high mitigation impacts and high development co-benefits that are likely to be more than the sum of those from buildings and transport options individually. (overall, the IEA estimates that energy efficiency measures (including Options

M₁-M₄ and C₁) contribute to 44 per cent of abatement potential in 2035 in the 450 parts per million scenario.^{xviii}). In addition, adaptation interventions in cities provide large benefits owing to the high population and population density of urban areas. Both mitigation and adaptation interventions are also scalable due to the potential for adaptation and mitigation in other cities and countries;

- (ii) **Cons:** The knowledge gaps and barriers to adoption in both buildings and transport are compounded. Jurisdiction overlap between local governments, transport authorities, and central governments makes implementation a challenge. Rigidities in legal structures, informal practices and institutions lead to high transactions costs of implementation.

- (b) **Option C₂. Joint mitigation and adaptation approaches for the integral and sustainable management of forests.** This is a non-market alternative that aims at promoting co-benefits to reduce deforestation and facilitate the transition to better land use through the development of a more sustainable production system (linking agriculture and forestry):^{xix}

- (i) **Pros:** Agroforestry and forest-pastoral systems show evidence of being more resilient to climate events and provide diversified incomes while retaining high levels of forest cover and carbon storage in vegetation and soils. This is a form of ecosystem-based adaptation (EbA);
- (ii) **Cons:** Requires support and training for transition to such farming systems and will remain vulnerable to pressures for forest clearing and larger-scale agricultural production systems that will rapidly reverse the benefits of the integrated system.

3.3.1 Mapping result areas to options

17. This Section applies the approaches concerning the short-term vision for the Fund as discussed in Section 2.2, to the result areas laid out above, based on the discussion of pros and cons. Noting that these are broad generalizations, and in specific countries these conclusions may not hold, the following options can be made:

- (a) **Option 1. Strategic focus on climate mitigation and adaptation.** Under this Option, result areas M₅ and M₇, pertaining to low carbon electricity and negative emission sequestration, would be given high priority despite moderate co-benefits, as they have high mitigation potential. Result areas M₁, M₂, and M₈, relating to building and appliance efficiency, industrial efficiency, and REDD+ would also obtain support, since these options have the potential for medium to high mitigation gains and high co-benefits. Result area M₆, agriculture and land-use, may yield high mitigation gains in some regions;
- (b) **Option 2. Strategic focus on areas of developing synergy/maximizing co-benefits.** Under this Option, result areas M₃, M₄, and M₆, on energy access, transportation, agriculture and land-use change, and cross-sectoral result area C₁ on urban development are prioritized based on high co-benefits. Additionally, as with Option 1, result areas M₁, M₂, and M₈ would receive focus, since they provide co-benefits as well as mitigation gains.

18. It is worth noting that many result areas, particularly M₁, M₂, and M₈ (the two efficiency options and REDD+) as well as, in some regions, result area M₆ on agriculture, are selected under both options. This suggests that a substantial segment of possible result areas bring broad wins across mitigation and co-benefits. Notably, at a regional level, some result areas

may have higher priority over others in any given option. Applying selective criteria helps direct relative emphasis in the remaining result areas.

3.4 Climate-resilient development pathways – priority adaptation result areas

19. From an adaptation point of view, the core objective of the Fund is to promote a paradigm shift towards climate-resilient development pathways, by providing support to developing countries to adapt, while taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change. Many countries have immediate needs that can be addressed through incremental change that does not require transformative change or paradigm shifts, and this may also be a component of the Fund. While the first half of the options presented in this Section focuses on the project level, the second half of options entail a high likelihood of achieving transformative impact.

20. Two concepts will need to be elaborated; namely, what constitutes climate-resilient development and what constitutes a paradigm shift? There are no objective measurements of climate-resilient development equivalent tons of CO₂ (t-CO₂) of emissions avoided per US\$ or per capita etc. as for mitigation. But there are some conditions that might be applied in identifying it. These include that the development plan should:

- (a) Include an assessment of climate risks;
- (b) Identify options for adaptive actions to avoid or minimize those risks to the best current knowledge;
- (c) Include a decision process to implement the adaptive actions at appropriate opportunities; and
- (d) Include a monitoring and evaluation process that provides continuous learning and feedbacks to adjust actions.

21. Development plans should seek to deliver the co-benefits sought in the objectives of the Fund, and the adaptation actions should seek to ensure those benefits continue to be delivered in a changing climate. Adaptation actions should also seek to avoid, or minimize, additional emissions, but should not be restricted to so-called 'win-win' options.

22. The Governing Instrument states that the Fund will seek to achieve paradigm shifts towards low-emission and climate-resilient development pathways. There are different understandings of what constitutes a paradigm change in the context of adaptation. Some see it as relating mostly to the change of recipient-contributor relationship, others seek the change of the funding system. However, the core goal is the transformation of adaptation practice by crossing thresholds into new behaviours and trajectories. Clearly, elements of all three will be necessary to achieve truly effective transformation, but in this Section, the focus is on the paradigmatic change of adaptation practice.

23. This would involve the adoption of activities, measures or institutional constructs that are new, at least to the location, thus crossing thresholds and creating discontinuities in practice. For example, in a marginal agricultural region, faced with increasingly erratic rainfall and increasing competition for irrigation water, actions to improve irrigation efficiency, switch to more drought-tolerant varieties, etc. are incremental, whereas a shift to non-irrigated cropping or crop-grazing mixes with greatly reduced water needs might be called paradigm changes. Similarly, encouraging the movement of people, skills and investment to a new region with more reliable rainfall would also constitute a transformative change.

24. Opportunities for transformational adaptation will often be triggered by large vulnerabilities and/or severe climate events that threaten to overwhelm existing systems. For

example, full enforcement of a coastline retreat policy may need to await a major storm event and its recovery process to implement concrete actions.

25. The delivery of climate resilient development based largely on transformational changes in the Fund's approach to climate risks presupposes the existence of at least four conditions:

- (a) There is a development plan;
- (b) Sufficient information about climate risks exists and is available at appropriate temporal and spatial scales;
- (c) Adaptation options can be identified and integrated within the development plan; and
- (d) Capacity exists to achieve this integration in accordance with the principles of the Fund and in a country-driven manner.

26. There are many existing mechanisms to support capacity building and information sharing in relation to both development and adaptation planning and the Fund may wish not to further duplicate these efforts, but to instead focus on concrete adaptation actions. However, given the increase in the scale of adaptation activities and the increasing flow of new information about climate risks and appropriate adaptation responses, the Fund may also seek to ensure that capacity is built and maintained locally and that information and expertise are available in a timely manner to support country-driven planning and actions.

27. Adaptation is inherently cross-sectoral. Adaptation activities at scale usually spread across usual sectoral boundaries, but sectorally-based result areas (e.g. water, agriculture and food security etc.), and are used often for guidance, reporting and/or prioritization. It is not possible to definitively rank sectoral options in terms of their effectiveness as can be done, to a greater extent, for mitigation. The effectiveness of adaptation action in a particular sector will vary by region, types of exposure, social and economic characteristics of the population exposed and the co-benefits that flow from adaptation actions integrated within climate-resilient development.

28. Experience with other adaptation funds shows that the distribution of requests for support and resources invested is consistent across these result areas. About 30 per cent of allocations have gone to activities to increase resilience relating to the production of food and fibre (agriculture, food and forests); about 20 per cent to better water management and about 10 per cent each to cities, coastal and infrastructure, transport and energy, which are also often related to storm and flood protection.

29. A review of the adaptation priorities identified in national adaptation programmes of action (NAPAs) is provided in Annex III. Table 1 of Annex III summarizes the activities and benefits arising from adaptation activities in various sectors and Table 2 of Annex III summarizes requests and allocations across sectors.

30. The Fund may wish to cover all sectoral results areas; to focus on selected sectoral results areas; or to coordinate resources around achieving particular goals (so-called 'flagships').

31. Evidently, adaptation mostly does not involve doing new things but doing things slightly differently. Thus, many of the options are process-related (process-related incorporates paradigm shift relating to incorporating adaptation concepts in the design and implementation of development projects, in particular for vulnerable countries, including SIDS and LDCs).

32. The result areas that the Board might consider, with their core advantages or disadvantages, are presented below. However, there are no objective measurements of climate-resilient development, equivalent to tCO₂ of emissions avoided per US dollar or per capita etc. as for mitigation. Data regarding impacts and benefits of adaptation are also not

available at a global scale. Consequently, these options are best judgements based on available local and national studies:

- (a) **Option A₁. Support for all sectoral result areas** (as outlined in Table 1 of Annex III). Countries would be able to seek support for concrete adaptation activities at the project or programme level^{xx} across the full range of adaptation result areas:
- (i) **Pros:** Comprehensive, inclusive of all country priorities;
 - (ii) **Cons:** Requires skills/resources within the Fund to manage a wide portfolio of activities.
- (b) **Option A₂. Support for a selective set of sectoral result areas.** The Fund may seek to take a more strategic focus on the range of result areas supported. For example, activities relating to agriculture, food and forests have been the most commonly identified and funded activities in other adaptation funds. The Board may seek to focus in this area, to draw upon the experience already available and to ensure early effectiveness in meeting well-identified needs; or it may seek to encourage, for example, programmes related to water management, or to infrastructure, which may have been held back until now by the relatively limited resources available per project.
- (i) **Option A_{2a}. Sub-option – Adopting either a phased expansion of the supported set of result areas or following a set of rolling priorities.** The Fund may adopt an initial set of priority result areas and over time, and as resources become available and experience is accumulated, the initial set can be either expanded to gradually include the full set, or the priorities can gradually shift to new result areas:
 - **Pros:** The Fund can focus on areas of importance and impact;
 - **Cons:** Less comprehensive and will possibly exclude some countries whose priorities are in other sectors.
 - (ii) **Option A_{2b}. Sub-option - Priority sectoral result areas to be selected by each country.** In this Sub-option, a country may enter into an agreement with the Fund to focus on a selected set of results areas most appropriate to its circumstances.
 - **Pros:** Even greater focus in the resources provided, country-oriented, inclusive;
 - **Cons:** High resource/skills required in the Fund.
- (c) **Option A₃. Support for selected themes cutting across above results areas (“flagships”).** The flagships may be time limited (5 to 10 years) as a priority area, although the commitment to resourcing could extend well beyond this. This Option could be combined with Options A₁ and A₂. Examples might include: reducing the high vulnerabilities of women and children in disasters; reducing climate related hazards and increasing the resilience of people in highly populated floodplains; effective risk spreading mechanisms, including insurance mechanisms; or encouraging the use of EbA actions;
- (i) **Pros:** Focused; most likely to deliver transformational change within the selected areas; allows the Fund to focus resources;
 - (ii) **Cons:** Would not (alone) meet full range of country needs.
- (d) **Option A₄. Facilitating capacity for programmatic and transformative activities.** Under this Option, the Fund might seek to draw upon the experience from GEF, the Adaptation Fund, CIFs and technical literature to identify major barriers to moving to scale in adaptation activities and achieving transformational change where needed.

Most adaptation activities to date have been project-based and relatively small-scale.^{xxi} Many have called for a more programmatic approach to adaptation, which here is taken to imply larger-scale, medium to long-term activities that integrate climate risk into strategic planning, engage multiple stakeholders, work across sectors, if necessary, internalize climate risk in operations and regulatory frameworks, and integrate it within budget planning^{xxii}. The main barriers currently include perceived uncertainty about climate risks, weak cost/benefit methodologies, and resistance to change within existing institutions.

A core role for the Fund would be to financially support adaptation activities at a programmatic scale including supporting countries in coordinating multiple internal and external financial resources and guaranteeing longer-term finance contingent on effective progress.

Transformational change is most likely to be achieved only if a number of preconditions are met. These include: a process to identify opportunities for transformational change and, for each opportunity, a set of economically feasible and socially and environmentally acceptable options for transformational change; to engage and build a common vision among the full range of stakeholders either affected by the transformational change or instrumental in achieving the changes; to identify triggering events or circumstances that might catalyse action; and to identify leadership for the tasks.

- (i) **Pros:** Accelerates and increases effectiveness of Fund funding;
- (ii) **Cons:** Another draw on Fund resources and skills; some actors may become locked into a phase of capacity building and not moving to concrete actions.

- (e) **Option A₅. Facilitating scaling up of effective community-based adaptation (CBA) actions.** Many adaptive actions will be achieved through CBA efforts. The challenge under this Option is to support the scaling up of the most successful actions from a few pilot communities to the thousands of communities that could benefit from them. Although the CBA actions themselves may be incremental, the process of scaling up is transformational in itself and this could be a focus of the Fund. This may require policies and measures at the national level, links with community-driven development (CDD) programmes, additional resources at local government level and support to civil society, including the private sector, to encourage 'self-replication' of the best experience from CBA:

- (i) **Pros:** Accelerates the spread of community owned adaptation activities;
- (ii) **Cons:** Another draw on Fund resources and skills.

- (f) **Option A₆. Supporting coordination of public goods such as 'knowledge hubs'.** Currently, there are many underfunded activities which are unlikely to be able to keep up with rapidly expanding knowledge base; nor support the need for greater "South" contributions to the information and experience, and for South-South exchange. Activities to achieve this result might be coordinated with the work of the Adaptation Committee on regional centres and networks^{xxiii} and the Global Framework for Climate Services, among others. A target of this effort would be to support the preparation of integrated, climate resilient, national development plans, including integrated NAPs and Poverty Reduction Strategy Papers (PRSPs). Integration of adaptation within national development plans to achieve climate resilient development, while maintaining the principles of access to new, additional, adequate and predictable financial resources, will require that consideration be given to options for the efficient blending of resource streams for development and adaptation:

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- (i) **Pros:** Promotes more rapid progress in information flow, which has been a bottleneck in implementing adaptation actions;
 - (ii) **Cons:** Another draw on the Fund's resources and skills.

33. For Option A₁ and A₂, the Fund may choose to identify differing access requirements depending on the size of the project or programme and possibly on the urgency of action. For example, fast-track approval for the opportunity to support climate-resilient recovery after a disaster.

IV. Performance indicators

4.1 Approach

34. Performance indicators play an increasingly important role as the variables that provide a simple and reliable means to measure achievement, to reflect changes connected to an intervention, or to help assess the performance of an organization against a stated outcome. This was recognized through the "Paris Declaration on Aid Effectiveness" and reinforced at Accra (2008) and Busan (2011).

35. In preparing this document, a literature review was undertaken with a focus on the monitoring and evaluation (M&E) procedures of the MDBs, GEF, the Adaptation Fund, and CIFs. The latter three organizations provided good experience and lessons learnt that are especially relevant to the Fund. In addition, the UNFCCC Conference of the Parties guidance on climate effectiveness, as outlined in decisions 3/CP.4 and 2/CP.16, is also of critical importance in determining the metrics for outcomes and impacts for the Fund.

36. The CIFs comprises four funds that have had their results frameworks revised in light of the harmonization exercise that took place in 2010, including the Clean Technology Fund Results Framework (January 2013), Forest Investment Program Results Framework (May 2011), Pilot Program for Climate Resilience Results Framework (January 2013) and Scaling up Renewable Energy Program Results Framework (June 2012).

37. The experience of the CIFs is well documented and the new results frameworks observes a number of principles, namely:

- (a) The need to employ national M&E systems where the results frameworks are designed to operate within national M&E systems and within the funds' own Managing for Development Results (MfDR) approach;
- (b) The need to undertake a flexible and pragmatic approach where country circumstances are taken into account; and
- (c) The need for a set of core indicators that could be aggregated to an overarching level.

38. The CIFs created a set of performance indicators that report on the impact, outcome and output of CIFs-funded activities. The CIFs indicators also serve as guidance for the countries and MDBs to identify relevant results and indicators for each of these levels. Project-level output indicators are not utilized by the CIFs.

39. Under the CIFs, projects and programmes are also required to measure the achievement of co-benefits at the transformative impact level. Co-benefits are also measured at the outcome level.

40. Similarly, as a result of the need to aggregate data and report at the programmatic/objective level, the GEF has introduced a Tracking Tool. For example, for climate change mitigation, the GEF identified six objectives. For each of these objectives, it identified a set of core performance indicators that would be reported against by each project. These core

indicators could be aggregated to the objective level, which provides an accurate picture of the overall results of each project. However, the GEF does not employ national level framework reporting and aggregation.

41. By comparing the CIFs and the GEF results frameworks, it is evident that there are commonalities in the results-based frameworks.
42. However, the nature of the institution/fund also influences the performance indicators it adopts. The GEF, which has a much broader scope, has developed indicators to capture its diversity. The CIFs, which have a more focused scope, have more specific indicators for each of its funds.
43. Given the range of objectives and result areas for the Fund, there are a range of performance indicators that the Fund could adopt. Importantly, the criteria and selection of performance indicators must be seen as an iterative process, as relevant indicators are dependent on result areas selected and may need to be revisited as the Fund refines its direction and expectations.
44. In ensuring robust measurements using performance indicators, it is important to note that each indicator needs to have a baseline and target. In addition, performance indicators should be disaggregated by poverty and gender where possible, and may be linked to country programming by developing country-specific indicators, especially in the case of adaptation.
45. There are a number of factors that the Board will need to consider in relation to performance indicators, which will influence the choice of the performance indicators that could be adopted:
 - (a) Is it necessary to have a results framework in place and have appropriate performance indicators identified before the Fund begins its operations or can the results framework and indicators be developed during or after the Fund begins its operations? From the literature and discussions with the GEF and CIFs, it was evident that the results framework and performance indicators should be in place when operations begin. Retrofitting projects to a result framework presents challenges and is an undesirable way to approach results management;
 - (b) Can the result framework and performance indicators be based on different timeframes? That is, should the performance indicators be focused on long-term transformational results, or should they also indicate short-term outcomes? Given that the Fund is intended to be transformational in nature, most results should be apparent at the transformational level in the medium to long-term. However, there is also a need to demonstrate results in the short-term to galvanize action, demonstrate that the Fund is achieving results, and to enable it to continue to attract support. In addition, both the CIFs and GEF have indicators that directly correlate their interventions with outputs and outcomes;
 - (c) Is it necessary to be able to aggregate project level data? Based on the literature review, all assessed results frameworks enable the aggregation of project-level data and contributors to funds have an expectation that results will be able to be aggregated in this fashion;
 - (d) At what level is data aggregation necessary? Are programme and result areas sufficient or is national level aggregation required? The CIFs have a framework for national data aggregation while the GEF is programme-driven. Given that the Fund aims to have a strong country ownership focus, it may need to consider country-level aggregation;
 - (e) How extensive should data collection efforts be? Is a large data pool required for the Fund to measure its performance or can it focus on a limited number of “core indicators” as adopted by the CIFs? As described above, the CIFs have adopted a small number of key indicators on transformative impact and programme outcome levels that allows it to

measure the effectiveness of its interventions. Focussing the performance indicators of the Fund on a similar number of core indicators would allow the country, and the implementing agencies, to define project-specific indicators that could align with the Fund programme outcome indicators. This will reduce costs and allow the use of national and MDB results frameworks, rather than creating parallel reporting processes. It is important to consider the cost-benefit analysis of increased levels of information. While there is always a benefit from a large pool of information, there is generally a sliding scale where this may not always have strategic value;

- (f) How should co-benefits be addressed? Should co-benefit indicators be defined at the global level or at the country level? Sustainable development indicators have been developed and implemented by many development institutions, at different levels of granularity. Some high-level examples of co-benefits could include health improvements, energy security, reduction in local pollution, reduced poverty, enterprise creation, and gender equality. However, in practice, as in the CDM, sustainable development is recognized as the focus of the target country and there has been strong resistance from developing countries to introduce any sustainable development indicators as an integral part of the approval process. This experience is mixed, as the CDM has come under strong criticism for not meeting its sustainable development objectives. The challenge is to deliver on the integration of country ownership with some level of predictability and accountability. To this end, two matters should be considered when defining co-benefits. One is the definition at the global level, while providing some flexibility to take into account individual country circumstances. This approach has the benefit of consistency, but risks being inadequately sensitive to different country contexts and priorities. The second matter is that countries themselves should develop co-benefits, but in a manner that meets certain minimum criteria. This can be seen as a process/reporting requirement, rather than an outcome requirement. Annex II, which summarizes co-benefits for the mitigation result areas, provides an indicative example of such a process-based approach.

4.2 Options for performance indicators

46. Performance indicators provide a metric for the Fund to measure its own effectiveness, as well as the effectiveness of the projects and programmes, and of the transformative country strategies supported by it. Two options are presented in Table 2. It is important to note that these are not necessarily mutually exclusive and that within the options, performance indicators would depend on the result areas supported by the Fund.

Table 2. Options for performance indicators for the Fund.

Indicator options	Priority result areas indicators
<p>Option P₁. Project and programme outputs performance indicators</p> <p>Pros: Indicates the physical impact of Fund activities in terms of development and adaptation.</p> <p>Cons: Impact of funding strongly dependent on reporting by executing and implementing</p>	Mitigation
	(a) Reduced emissions from buildings and appliances (tCO ₂ /m ²)
	(b) Increased access to transportation with low carbon fuels (tCO ₂ /passenger km)
	(c) Reduced emissions from agriculture and related land use management (tCO ₂ /ha sequestered; tCO ₂ sequestered; tN ₂ O emitted per hectare from fertilizer)
	(d) tCO ₂ reduced through Fund interventions
	(e) Deployment of low-carbon power generation technologies (tCO ₂ /Kwh)
	(f) Households with access to low carbon modern technologies (Number of households served by off grid or clearly identifiable on grid renewable technologies)
(g) Support development of negative emissions technologies	

<p>entities.</p>	<p>(h) (Number of CCS projects, tons of CO₂ sequestered) Support phased implementation of REDD+ (Decrease in rate of deforestation tCO₂e reductions from reduced deforestation) and maintenance of afforestation, tCO₂/ha</p>
	<p>Adaptation</p>
	<p>(a) Number of people supported by, and familiar with, early warning procedures;</p> <p>(b) Indicators would need to be selected as appropriate to the results sector, the country and to the type of activity. There is a considerable body of experience on output indicators and gradually growing experience with outcome indicators^{xxiv}.</p> <p>(c) Each flagship would have indicators relevant to its area of focus. For example, the ratio of women and children mortality/injury (possibly as DALYs) to that for men in climate-related events; variance in annual income of smallholder farmers post-implementation compared with estimated variance in the 10 years pre-implementation; total area under management for EbA values.</p> <p>(d) Number of CBA scale-ups supported.</p> <p>(e) Number of people supported by the scale-ups.</p> <p>(f) Number of scale-ups achieving a 100 fold/1000 fold etc. more people within the activity than in the original pilot.</p> <p>(g) Each scale-up would have its specific performance indicators depending on the activity; e.g. the reduction in the number of participant farmers experiencing income losses of more than 33 per cent.</p> <p>(h) Number of CBA pilots supported (if Fund resources are used for pilots by a country) and the portion supported as scale-ups.</p> <p>(i) Number of countries with effective access to a regional “Centre of Excellence” / “Regional Climate Centre”.</p> <p>(j) Within a country, the existence of an active staff training and exchange programme with that centre and number of people trained.</p>
<p>Option P₂. Transformative impact of Fund activities performance indicators. Trends in the adoption of technology/best practice/business models for low-emission and climate-resilient development pathways at the country and global levels.</p> <p>Pros: Captures the overall impact of the Fund on development pathways.</p> <p>Cons: Depends on both implementing changes of policy and regulatory framework by recipient country.</p>	<p>Mitigation</p>
	<p>(a) Carbon intensity of economy (tCO₂/GDP)</p> <p>(b) Reduced energy intensity of industry (tCO₂/GDP)</p> <p>(c) Facilitate design of sustainable cities (tCO₂/capita)</p>
	<p>Adaptation</p>
	<p>(a) Decreasing number of people killed, injured and affected (e.g. from the Center for Research on the Epidemiology for Disasters database) by climate-related disasters;</p> <p>(b) In the longer term, developed methodologies that better measure monetary and non-monetary losses as percentage of GDP from climate related events relevant to developing countries^{xxv};</p> <p>(c) In the longer term, developed pragmatic index (c.f. the Human Development Index), or indices, that capture the major elements of social vulnerability at national to community scales.</p> <p>(d) Meanwhile, a longer list of indicators, possibly linked to the Sustainable Development Goals, might be tracked regularly by the Fund. These might include access to clean and reliable water and sanitation; access to adequate and diversified food, etc.</p> <p>(e) Overall, the existence of a process for identifying transformational opportunities and the number of applications of that process; the number of implementation ready transformational plans; the number plans implemented.</p> <p>(f) Secondary indicators might include the number of vulnerability</p>

	<p>areas analysed and transformational opportunities identified; status of each of those transformational plans.</p> <p>(g) Within each transformational plan specific indicators should be selected depending on the focus of the plan. For example; the proportion of people moving from a hazardous area, such as a coastal flood plain, and the number of people remaining there.</p> <p>(h) Number of planning processes, public and private, that draw upon climate risk information from the centre or from staff trained by the centre.</p>
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Annex I: Draft decision of the Board

The Board, having reviewed document GCF/B.04/03 *Business Model Framework: Objectives, Results and Performance Indicators*:

- (a) Notes convergence that the Fund should adopt a fully comprehensive approach for a short-term vision of the Fund, as described in Section 2.2 of document GCF/B.04/03;
- (b) Notes that the Fund's objectives, results and core performance indicators will also be applied to operations of the Fund's Private Sector Facility, where relevant;
- (c) Decides to adopt Option(s) [X: description; Y: description; Z: description] as the priority mitigation result areas of the Fund in order to enable low-emission development pathways, as described in Section 3.2 of document GCF/B.04/03;
- (d) Further decides to adopt Option(s) [X: description, Y: description] as cross-sectoral result(s) of the Fund, as described in Section 3.3 of document GCF/B.04/03;
- (e) Further decides to adopt Option(s) [X: description; Y: description; Z: description] as the priority adaptation result areas of the Fund in order to enable climate-resilient development pathways, as described in Section 3.4 of document GCF/B.04/03;
- (f) Requests the Interim Secretariat to prepare a document outlining the possible areas of sectoral focus for adaptation that could be employed by the Fund, to be considered by the Board at its meeting in September 2013;
- (g) Further notes the convergence on the performance indicators for project and programme outputs, as described in Section 4.2 of document GCF/B.04/03:
 - (i) [X,Y,Z] for mitigation; and
 - (ii) [X,Y,Z] for adaptation.
- (h) Further notes convergence on the performance indicators for transformative impact of Fund activities, as described in Section 4.2 of document GCF/B.04/03:
 - (i) [X,Y,Z] for mitigation; and
 - (ii) [X,Y,Z] for adaptation.
- (i) Requests the Interim Secretariat to prepare a document outlining the core performance indicators to be employed by the Fund to measure performance against the objectives of the Fund and the mitigation and adaptation results agreed by the Board, to be considered by the Board at its meeting in September 2013;
- (j) Requests the Interim Secretariat to ensure that the core performance indicators proposed for the Fund are based on accessible data and are relevant to measure the performance of the Fund;
- (k) Requests the Interim Secretariat to ensure that the document on the results management framework, which will be considered by the Board as part of the business model framework at its meeting in September 2013, is aligned with the proposed core performance indicators.

Annex II: Co-benefits and costs of mitigation result areas^{xxvi} (costs in italics)

Result area	Economic benefits and <i>costs</i> (aggregate income, jobs, price impacts)	Energy security benefits and <i>costs</i> (security of fuel supply, price volatility)	Social benefits and <i>costs</i> (energy access, distribution issues)	Local environmental benefits and <i>costs</i> (pressure on land, water, and other natural resources, biodiversity, air pollution)
1. Reducing energy use from buildings and appliances	<p>Reduced operating costs of buildings Possible demand effect through increased demand for appliances</p> <p>Neutral on jobs: building and appliance jobs may be balanced by power sector job losses</p> <p><i>Increased up front costs of buildings</i></p>	<p>Improvements in energy security through displacement of fossil fuel electricity</p> <p>Scope for improved grid reliability (buildings) and lower peak demand</p> <p>Gains to energy security from appliances depend on the extent of “rebound effect”</p>	<p>Potential improvements in living environment</p>	<p>Improvements in air pollution, lower mining impacts if fossil fuel energy sources are displaced</p> <p>Effect of appliances somewhat reduced by “rebound effect”</p>
2. Enabling reduction in the emission intensity of industrial production	<p>Positive effect by reducing energy costs for industry</p>	<p>Positive due to reduced fuel imports</p>	<p>Reduced costs for consumers if markets enable pass-through from industry</p>	<p>Reduction in air pollution, land and water use</p>
3. Increasing access to transportation with low-carbon fuels	<p>Potential job gains</p> <p>Potential economic stimulus</p> <p>Economic gains due to lower freight costs</p> <p>Employment gains during infrastructure build-out</p> <p><i>High up-front investment requirements</i></p>	<p>Decrease in oil and gas imports</p>	<p>Public transport disproportionately benefits lower income groups</p> <p>Lower risk of accidents</p> <p>Potential decrease in cost of consumer goods reflecting lower transport costs from modal shift in freight</p> <p><i>Possible increase in cost of vehicles</i></p> <p><i>For biofuels, possible negative interactive effects due to</i></p>	<p>Decrease in local air pollution from public transport and some cleaner fuels</p> <p><i>Possible negative implications on land use for certain fuels</i></p>

			<i>diversion of land from food crops to fuel crops</i>	
4. Providing households with access to low-carbon, modern energy	Stimulation of local employment opportunities – maintenance of hardware Enhancement of opportunities for local productivity	Positive due to reduced fuel imports	Strong social gains from electrification in remote areas Strong health gains from reduced indoor air pollution due to cookstoves	Substitution away from fossil fuels leading to gains in air pollution, decreased mining impact Reduction of pressures on biomass and land use through improved cookstoves
5. Supporting the development, transfer and deployment at scale of low-carbon power generation	Employment gains and value added if locally produced Supply-side efficiency gains in electricity system due to grid improvements	Reduction of fuel import dependence	Implications for cost of access depend on cost reductions achieved <i>Potential conflicts over siting</i>	Reduced air pollution, mining and related impacts <i>Land use requirements and water demands associated with some “rebound effect” technologies</i>
6. Reducing emissions from agriculture and related land use management	Lower financial risk through reduced input costs (e.g. fertilizers) More stable incomes through diversity of crops	Reduced fossil fuel imports due to direct and indirect (fertilizer) reductions in energy use	Multi-cropping may provide a more diverse local diet and often a reduction in pesticide use	Less pollution from excess fertilizer run-off <i>Higher pesticide use in association with no-till agriculture</i>
7. Supporting implementation of the phased approach to REDD+	Protection of ecosystem services with economic value Economic gains due to preservation of forest based livelihoods	Neutral	Community benefits <i>Opportunity costs from communities/business not able to clear and cultivate land for agriculture</i>	Biodiversity protection

Annex III: Allocations by adaptation result areas across four adaptation funds

Table 1. Summary of activities and associated benefits arising from adaptation activities in various sectors

Result areas	NAPA % identified and total allocation percentage (See Table 2)	Examples of particular activities	Comments on relative importance of the result areas
Capacity and knowledge	6 / 8	Broad training in climate-related matters and responses.	
Disaster risk management and early warning	16 / 16	Monitoring systems, early warning plans, improved standards for infrastructure, retrofitting existing infrastructure, community education, training of first responders; support for more resilient recovery.	About 60 per cent of people affected by climate-related disasters in LDCs over the past 40 years have been in sudden-onset disasters; ¹ improvements in this sector will also benefit in non-climate-related disasters, such as tsunamis.
Agriculture /food/ forests	28 / 29	Activities vary widely by regions and circumstances, but include support for adopting new farming systems including agroforestry, climate related social safety nets and insurance where applicable, better post production food handling.	About 40 per cent of people affected by climate-related disasters in LDCs over the past 40 years (approximately 300 million) arise from disastrous droughts; to this must be added the 900 million annually ² (over 90 per cent in LDCs) who suffer from some form of hunger or chronic malnutrition, which would be exacerbated without appropriate adaptation actions.
Water and hydro	14 / 18	Activities support the better management and allocation of water with benefits to agriculture, flood management and health.	About 60 per cent of people affected by climate-related disasters in LDCs over the past 40 years (approximately 400 million) have been affected by storm and flooding events ³ . The consequences of these events often flow through to food production and supply systems and food affordability.
Coast and cities	15 / 12	Activities often centre on resilience to coastal or riverine flooding or to storm water flows.	
Infra-structure, energy and transport	2 / 11	Activities include improving the resilience of transport systems, usually to flooding, with increasing attention going to energy generation and distribution systems.	There are no suitable statistics on how many people are affected by poor resilience in these sectors, although in many countries most of the population is susceptible to disruptions due to climate-related failures in transport and energy systems.

¹ <http://www.emdat.be/database>.

² <http://www.fao.org/news/story/en/item/161819/>.

³ <http://www.emdat.be/database>.

Social and health	4 / 0	Usually focus on public health activities that reduce the impacts of malnutrition, water-borne diseases etc.	These activities seek to reduce the consequences of climate-related events and have a continuing benefit of improved public health at all times.
Ecosystems	15 / 1	Activities that explore the use of land (e.g. floodplain) and vegetation (e.g. mangrove) management as an alternative or supplement to 'hard structures' such as dykes. Such activities rely on the creation of healthy, sustainable ecosystems and will usually have co-benefits in ecosystem conservation.	Management of land use, vegetation and wetlands have long been used to reduce climate related impacts. The designed use of EbA at scale to increase resilience to climate change is still relatively untested.
Cross-sectoral	0 / 5	None identified.	-

Table 2. Summary of requests and allocations across sectors

Result area	NAPA % identified	GEF LDCF allocations US\$ million	GEF LDCF %	GEF SCCF allocations US\$ million	GEF SCCF %	Adaptation Fund US\$ million	Adaptation Fund %	PPCR allocations US\$ million	PPCR %	Total allocations US\$ million	Total %
Capacity and knowledge	6	41	9	25	13			80	9	146	8
Disaster risk management and early warning	16	110	24	23	12	30	17	120	13	283	16
Agriculture/food/forests	28	137	30	50	26	91	51	220	24	499	29
Water and hydro	14	78	17	47	24	25	14	170	19	319	18
Coast and cities	15	64	14	31	16	31	18	75	8	201	12
Infrastructure, energy and transport	2	18	4					165	18	183	11
Social and health	4	5	1							5	0
Ecosystems	15	5	1	17	9					22	1
Cross-sectoral								80	9	80	5
	100	458	100	194	100	177	100	910	100	1739	100

“NAPA % identified” is the percentage of financing identified in NAPAs by results sector. Information based on the fund web sites accessed in May 2013 and matching result sectors as closely as possible.

Annex IV: List of referenced and reviewed literature and information sources

- ⁱ UNEP report, Japanese CDM MCA methodology, India co-benefits approach.
- ⁱⁱ Ürge-Vorsatz D., K. Petrichenko, M. Staniec, and E. Jiyong (2013). Energy use in buildings in a long-term perspective. Current Opinion in Environmental Sustainability, in press.
- ⁱⁱⁱ See Sarkar A., & J. Singh (2010), 'Financing energy efficiency in developing countries – lessons learned and remaining challenges', *Energy Policy* 38: 5560-5571.
- ^{iv} See IEA (2012), 'Plugging the Energy Efficiency Gap with Climate Finance', Insight Series, Executive Summary.
- ^v UNFCCC SBASTA (2009). *Second synthesis report on technology needs identified by Parties not included in Annex I to the Convention*. Subsidiary Body for Scientific and Technological Advice, United Nations Framework Convention on Climate Change, Bonn. Available at: <http://unfccc.int/resource/docs/2009/sbsta/eng/inf01.pdf>.
- ^{vi} There is evidence that freight will increase considerably as a share of world transport needs. See IEA (2008). *Energy Technology Perspectives 2008*, OECD/IEA, Paris. Freight needs in some Asian economies, for example, are likely to grow at a rapid pace. See, for example, Ng, Wei-Shiuen and Lee Schipper, WRI (2005). *Growing in the Greenhouse: Protecting the Climate by Putting Development First*. "China Motorization Trends." Washington, DC.; Stephane de la Rue du Can, Virginie Letschert, Michael McNeil, Nan Zhou, and Jayant Sathaye (2009), "Residential and Transport Energy Use in India: Past Trend and Future Outlook", Lawrence Berkeley National Labs, <http://ies.lbl.gov/drupal.files/ies.lbl.gov.sandbox/LBNL-1753E.pdf>; and Nan Zhou, Michael A. McNeil (2009), *Assessment of Historic Trend in Mobility and Energy Use in India Transportation Sector Using Bottom-up Approach*, Lawrence Berkeley National Labs, <http://china.lbl.gov/sites/china.lbl.gov/files/LBNL-2415E.pdf>. IEA data suggests that rail freight is far more efficient in energy and carbon terms than is road freight. IEA (2009). *Transport, Energy and CO₂: Moving Towards Sustainability*, OECD/IEA, Paris
- ^{vii} AME Database (Asian Modeling Exercise), Energy Economics Special Issue 2012, Calvin, K., L. Clarke & V.Krey (eds). Accessed from IIASA website, April 29, 2013.
- ^{viii} See Millard AM, & L. Ortolano (2010), 'Constructing carbon offsets: The obstacles to quantifying emission reductions', *Energy Policy*, 38(1): 533-540.
- ^{ix} Pachauri S, et al. (2013) Pathways to achieve universal household access to modern energy by 2030. *Environmental Research Letters*, 8(2):024015 (2 May 2013), See Supplemental Table S9.
- ^x See Pachauri, S., N.D. Rao, Y. Nagai and K. Riahi (2012). *Access to Modern Energy: Assessment and Outlook for Developing and Emerging Regions*. IIASA, Laxenburg, Austria.
- ^{xi} Pachauri S, et al. (2013) Pathways to achieve universal household access to modern energy by 2030. *Environmental Research Letters*, 8(2):024015 (2 May 2013), See Supplemental Table S9.
- ^{xii} On energy access GHG impacts, see Rogelj, J., D. L. McCollum & K. Riahi (2013) The UN's new 'Sustainable Energy For All' initiative is compatible with 2°C. (Perspective) *Nature Climate Change*, DOI:10.1038/nclimate1806; on black carbon, see Bond T. et al. (2013), Bounding the role of black carbon in the climate system: A scientific assessment, *Journal of Geophysical Research*, DOI: 10.1002/jgrd.50171;
- ^{xiii} IEA, *World Energy Outlook*, 2012
- ^{xiv} See Godfray H.C.J., J.R. Beddington, I.R. Crute, L. Haddad, D. Lawrence, J.F. Muir, J. Pretty, S. Robinson, 7 S.M. Thomas, and C. Toulmin (2010). *Food Security: The Challenge of Feeding 9 Billion People*. *Science* 327, 812–818; Parfitt J., M. Barthel, and S. Macnaughton (2010). *Food waste within food supply chains: 1 quantification and potential for change to 2050*. *Philosophical Transactions of the Royal Society B: 2 Biological Sciences* 365, 3065 –3081.
- ^{xv} EPRI (2012). *Overview of Subnational Programs to Reduce Emissions from Deforestation and Forest Degradation (REDD) as Part of the Governors' Climate and Forests Task Force*.
- ^{xvi} Angelsen, A (2012) *What does REDD+ really cost?* CIFOR Forests News. Available online: <http://blog.cifor.org/3793/what-does-redd-really-cost/#.UZIYa4LQnTQ> (last accessed 14th May, 2013).
- ^{xvii} IEA (2012). *Energy Technology Perspectives 2012: Pathways to a clean energy system*. International Energy Agency (IEA), Paris, France. Available at: www.iea.org/etp/.
- ^{xviii} IEA (2012). *Energy Technology Perspectives 2012: Pathways to a clean energy system*. International Energy Agency (IEA), Paris, France. Available at: www.iea.org/etp/.

^{xix} The Plurinational State of Bolivia, (2012). *The Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests*. Presentation to the UNFCCC, August 2012.

^{xx} The Adaptation Fund has elaborated on some core terms as follows: "A concrete adaptation project is defined as a set of activities aimed at addressing the adverse impacts of and risks posed by climate change. Adaptation projects can be implemented at the community, national, and transboundary level. Projects concern discrete activities with a collective objective(s) and concrete outcomes and outputs that are more narrowly defined in scope, space, and time. An adaptation programme is a process, a plan, or an approach for addressing climate change impacts that is broader than the scope of an individual project." (paragraphs 10 and 11 of The Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund

^{xxi} The bulk of adaptation support through the various financial mechanisms has been for projects of only a few million dollars with few exceeding US\$ 10 million.

^{xxii} See The GEF guidance at

<http://www.thegef.org/gef/sites/thegef.org/files/documents/C.33.6%20Programmatic%20Approach%20Paper.pdf>

^{xxiii} http://unfccc.int/adaptation/cancun_adaptation_framework/adaptation_committee/items/6593.php

^{xxiv} See for example, Adaptation Fund Results and Baselines Guidance: Project level at <http://adaptation-fund.org/sites/default/files/Results%20Framework%20and%20Baseline%20Guidance%20final%20compressed.pdf> and the GEF Climate Change Adaptation - LDCF/SCCF Adaptation Monitoring and Assessment Tool (2012) at http://www.thegef.org/gef/tracking_tool_LDCF_SCCF.

^{xxv} Most current loss estimates hugely underreport the impacts of climate events in developing countries.

^{xxvi} This table draws from methods for explicit analysis of co-benefits using a multi-criteria analysis approach that are being developed and tested. See, for example, UNEP. 2011. *A Practical Framework for Planning Pro-development Climate Policy*. Framework. UNEP.

http://www.mca4climate.info/_assets/files/FINAL_MCA4report_online.pdf; Ministry of Environment, Government of Japan. 2009. Manual for Quantitative Evaluation of the Co-Benefits Approach to Climate Change Projects. www.env.go.jp/en/earth/cc/manual_qecba.pdf Accessed 9 March 2013.; and Navroz K. Dubash, D. Raghunandan, Girish Sant, and Ashok Sreenivas, "Indian Climate Change Policy: Exploring a Co-Benefits Based Approach" Forthcoming *Economic and Political Weekly*, May 2013.
