



EVALUATION OF THE GEF FOCAL AREA STRATEGIES

TECHNICAL PAPER 7:

CLIMATE CHANGE ADAPTATION UNDER LDCE AND SCCF (UNEDITED)

(Prepared by the GEF Evaluation Office)

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1. INTRODUCTION

The *Evaluation of GEF Focal Area Strategies* is designed as a formative¹ evaluation emphasizing learning as its primary goal. Accordingly, the evaluation's main objective is to collect and assess information related to the GEF-5 Focal Area Strategies to gain a systematic understanding of the elements and causal links each strategy envisions. The evaluation encompasses the analysis of the following Focal Area Strategies: Biodiversity, Climate Change Mitigation, International Waters, Land Degradation, Chemicals, Sustainable Forest Management/REDD+.

In addition, the evaluation includes an assessment of the Strategy on Adaptation to Climate Change for the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF). Within the GEF, issues of Climate Change Adaptation (CCA) are addressed through two funds separate from the GEF Trust Fund. The LDCF and SCCF are set up directly under the UN Framework Convention on Climate Change. Climate Change Adaptation therefore does not constitute a Focal Area under the GEF Trust Fund. LDCF and SCCF are, however, managed by the GEF as the UNFCCC financial mechanism. Consequently, the GEF Evaluation Office provides the evaluation function for SCCF and LDCF. Previous Overall Performance Studies included assessments of CCA activities as an important part of GEF overall efforts (see OPS4, p.87-91). OPS5 will continue to report on CCA activities under LDCF and SCCF. Consequently the *Evaluation of GEF Focal Area Strategies* will also include the LDCF/SCCF Strategy on Climate Change Adaptation.

In many regards, LDCF and SCCF follow GEF policies, standards and procedures. However, a number of **important differences between LDCF/SCCF and the GEF Focal Areas exist** in terms of principles and overarching approaches as well as procedural issues. The following assessments as well as the construction of the CCA TOC will fully take these particularities into account. Table 1 presents an overview of some of the main differences.

Table 1: Main differences between LDCF/SCCF and GEF Trust Fund²

	GEF TF	LDCF	SCCF
Project must generate global environmental benefits	Yes	No	No*
Project must generate adaptation benefits	No	Yes	Yes*
Funding allocated according to RAF or STAR	Yes	No	No
Projects financed according to the "incremental cost" principle	Yes	No	No*
Project proposals approved on a rolling basis	No	Yes	No
Funding of projects according to "balanced access"	No	Yes	No
Ceiling for Medium-sized Project	\$1m	\$2m	\$1m

* Technology Transfer for Mitigation projects that can also be funded under the SCCF are excepted.

¹ The evaluation literature distinguishes between "summative" and "formative" evaluations. Summative evaluations focus on the assessment of performance and progress measured against expected targets and are used to evaluate accountability of a given system. In contrast, formative evaluations analyze evidence in order to learn from past experiences to inform improvements of a given system moving forward. See: Scriven, Michael (1967). "The methodology of evaluation". In Stake, R. E. Curriculum evaluation. Chicago: Rand McNally.

² Adopted from "Accessing Resources under the LDCF" and "Accessing Resources under the SCCF".

LDCF and SCCF are not part of the GEF replenishment process which has a significant impact on the design and implementation of the LDCF/SCCF Strategy and distinguishes it from the GEF Focal Area Strategies. Being based on voluntary contributions of donors, funding levels for the LDCF and SCCF are volatile and unpredictable. Consequently, in contrast to the Results Frameworks of the GEF Focal Area Strategies, the CCA Strategy cannot build on indicative resource allocations per objective, but instead has to provide different funding scenarios linking expected outputs to potential but uncertain levels of available funds. Accordingly, **the scope and scale of expected outcomes from LDCF/SCCF activities is dependent on the funding levels reached during the 2010-2014 period as well as the timing of when funds become available within this period** as there are no upfront commitments for LDCF/SCCF that the strategy can be based on.

The *Evaluation of GEF Focal Area Strategies* focuses on the analysis of the GEF-5 Focal Area Strategies and the LDCF/SCCF Strategy as they are formulated and emphasizes the strategies' intended rationale and internal logic. Using a theory-based approach, the evaluation takes a detailed look at the logic chains of causality that each strategy identifies to achieve its objectives. Based on the "theory of change" (TOC) analysis, the evaluation provides an assessment of the extent to which the causal pathways identified by the strategies reflect guidance provided to the GEF by the international conventions (UNFCCC, CBD, UNCCD and Stockholm Convention) as well as the current state of scientific knowledge on aspects relating to the strategies. The analysis provides the foundation for a subsequent assessment of the implementation of Strategies in GEF or LDCF/SCCF projects, which will be conducted in the context of OPS5.

Aiming to improve the understanding of elements and causal links reflected in strategies, the evaluation employs a four step approach:

- a) **Construct the theories of change:** What are the elements, causal links and overall rationale reflected in each strategy? What are the identified causal pathways envisioned to lead to the achievement of the strategy's objectives?
- b) **Review the relationship with convention guidance:** To what extent and in what way do the objectives formulated in the strategies relate to respective convention guidance?
- c) **Assess the connection with scientific knowledge:** To what extent do the strategies correspond with current scientific knowledge?
- d) **Make recommendations for future strategies:** Based on the findings of steps 1-3, what recommendations for the development of future GEF Strategies can be provided?

The Technical Papers 1-7, covering each of the Focal Area Strategies as well as the LDCF/SCCF Strategy individually, present the findings from three separate processes of data collection and analysis conducted to answer the evaluation questions outlined above. They illustrate the construction of the Theory of Change for each strategy (chapter 2), present the review of convention guidance and the guidance-strategy mapping where applicable (chapter 3), and summarize the results of the Real-Time Delphi consultation that engages the scientific community in a discussion on the relationship between the strategies and the current state of scientific knowledge (chapter 4).

2. THEORY OF CHANGE FOR THE LDCF/SCCF STRATEGY

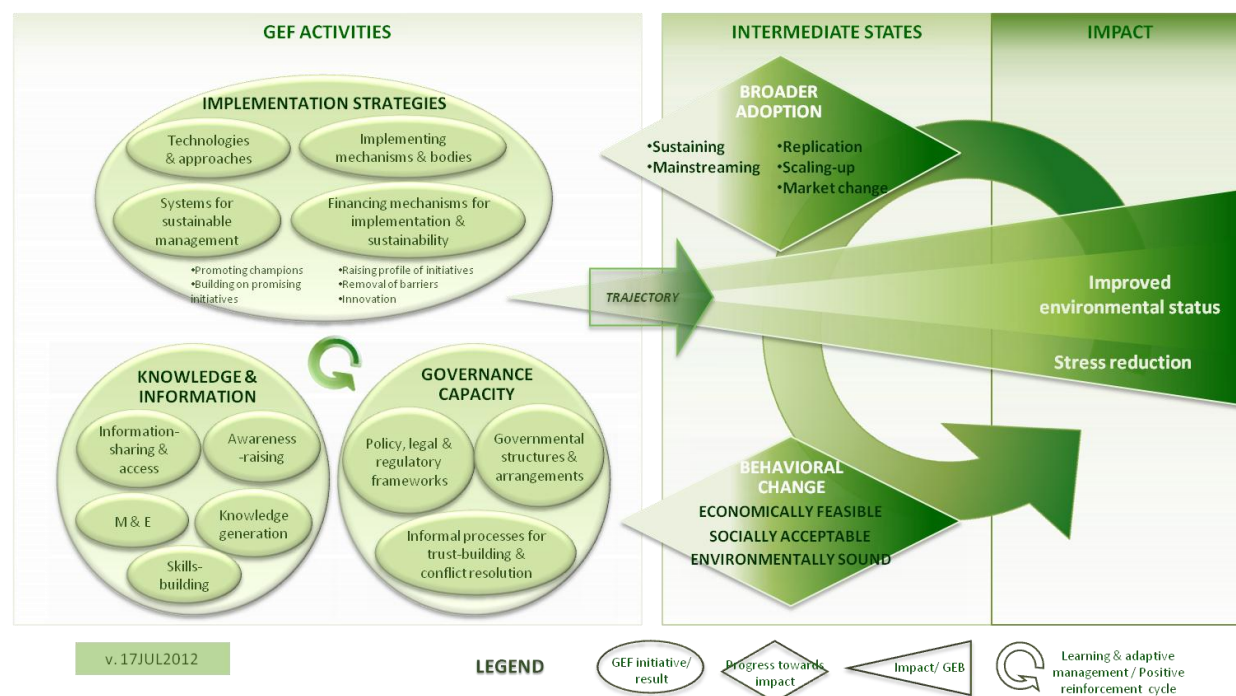
2.1 TOC Approach

A theory-based evaluation is designed around the “theory of change” (TOC) of an activity or strategy. The TOC systematically examines the elements and causal links that constitute the activity/strategy in order to understand and describe the logic of how the activity/strategy is expected to lead to the desired results (Fitz-Gibbon and Morris 1996, Weiss 1972). A theory of change may have been made explicit when the activity/strategy was designed; sometimes it is implicit, which requires the evaluators to reconstruct it. In the case of the GEF-5 Focal Area Strategies and the LDCF/SCCF Strategy, the TOCs are mostly implicit and their reconstruction constitutes a major part of the *Evaluation of GEF Focal Area Strategies*.

General Framework for GEF TOC

In preparation for OPS5, the GEF Evaluation Office has developed a General Framework for the GEF TOC drawing on a large amount of evaluative evidence gathered over the years. The *Evaluation of GEF Focal Area Strategies* uses the General Framework to guide the construction of Strategy TOCs. The purposes of the General Framework for GEF’s TOC framework are to classify GEF activities and locate them within the intended causality chain towards the generation of GEBs/Adaptation Benefit; establish links between different elements of GEF support as well as between GEF activities and contributions of other actors; assess GEF contribution to progress towards GEBs/Adaptation Benefits, including the GEF’s interaction with other actors; and identify constraints on further GEF contributions to progress towards GEBs/Adaptation Benefits.

Figure 1: General Framework for GEF Theory of Change



The General Framework for GEF TOC was developed primarily on the basis of evaluative evidence from GEF activities under the GEF Focal Areas and **does not explicitly reflect some of the particularities of the LDCF and SCCF described above** (see page 3-4). The the General Framework is still largely applicable to the LDCF/SCCF and its general categories are also suitable for capturing the elements of the LDCF/SCCF Strategy. Nevertheless, the differences in principles and procedures need to be kept in mind when employing the General Framework to the LDCF/SCCF Strategy. The LDCF/SCCF overarching goal of creating Adaptation Benefits instead of GEBs is of particular importance in this regard. In addition, the LDCF/SCCF funding procedures (see page 4) and levels of available funding at any given point in time exert a significant influence on the scope and scale of what the LDCF and SCCF portfolio can achieve.

The framework classifies GEF support into three categories that are interdependent and in most cases realize their full potential through their interaction with each other. These categories are also applicable to GEF activities under the LDCF and SCCF. A specific GEF project often features a combination of elements from different categories:

- a) **Knowledge and information**, including activities to support the generation and sharing of pertinent knowledge and information, awareness-raising activities, improvement of technical skills, as well as monitoring and evaluation.
- b) **Governance capacity**, encompassing support for the development and formulation of policy, legal and regulatory frameworks at the appropriate scales of intervention, assistance for the improvement of governmental structures and processes, as well as support for informal mechanisms for trust-building and conflict resolution.
- c) **Implementation strategies**, covering a broad range of activities including investments in physical assets, establishment of financing mechanisms and organizational arrangements, as well as improvements of sustainable management approaches, among many others. This category entails the testing and demonstration of new technologies, instruments and approaches, as well as efforts to support broader deployment of proven strategies.

Changes directly linked to GEF activities are referred to as GEF outputs and outcomes. In working towards envisioned outputs and outcomes, the different elements within a GEF project are often designed to complement each other and interact with contributions of other actors. GEF projects are usually conducted within the context of previous and ongoing initiatives carried out in part by non-GEF actors (national governments, international organizations, CSOs, private sector). GEF projects often build on and/or supplement contributions of other actors. In addition, GEF activities are implemented under national circumstances that influence the initiative and are largely outside GEF control. The General Framework helps to assess the interactions of GEF activities with contextual factors.

GEF support is typically envisioned to catalyze progress towards impact at a broader level including the broader adoption of technologies, approaches and instruments. Within its limitations, LDCF and SCCF activities are in many cases also geared towards catalyzing broader change beyond the individual LDCF/SCCF project. The nature of GEF involvement in catalyzing broader adoption is different between individual projects and across Focal Areas. In a number of cases, GEF activities include direct support for the facilitation of broader adoption in collaboration with other actors, turning broader adoption into a direct GEF project outcome as described above. In these cases, broader adoption is directly integrated in the design of the GEF activity. In other cases, broader adoption is following the example of GEF activities, but emerges without direct

GEF support which puts broader adoption beyond the scope of implementation of the GEF project itself. Under both approaches, the GEF aims at developing initiatives to trigger a broad range of stakeholders to use the projects' results beyond their direct objectives. The General Framework identifies five general categories of ways towards broader adoption within or beyond the limits of direct GEF influence:

- a) **Sustaining:** Technologies/approaches originally supported through the GEF activity continue to be implemented beyond actual project duration through integration into the regular activities and budget of the government and/or other stakeholders.
- b) **Mainstreaming:** Information, lessons, or aspects of a GEF initiative are incorporated into a broader initiative such as policies, institutional reforms, and behavioral transformations.
- c) **Replication:** Results of GEF activities are reproduced at a comparable scale, often in different geographical areas or regions.
- d) **Scaling-up:** Results of GEF activities are expanded to address concerns at larger geographical, ecological or administrative scales.
- e) **Market change:** GEF activity catalyzes market transformation, which might encompass technological changes, policy and regulatory reforms, and financial instruments that increase demand for goods and services likely to contribute to global environmental benefits.

Broader adoption goes hand in hand with behavioral change, meaning sustained and significant changes in stakeholder choices towards more environment-friendly actions. The TOC framework highlights the reinforcing interactions between broader adoption, behavioral change and environmental improvements.

TOC construction for GEF-5 Focal Area Strategies and LDCF/SCCF Strategy

The *Evaluation of GEF Focal Area Strategies* applies the general framework to each of the GEF-5 Focal Areas as well as the LDCF/SCCF Strategy. The resulting TOCs map out the strategies' elements and causal links, depicting the means-ends linkages envisioned explicitly or implicitly in the strategy and thereby identifying the logical chain of actions that are supposed to lead to the achievement of the strategies' objectives.

The purpose of the Focal Area Strategies TOCs, serving to establish the foundation for a subsequent evaluative effort on the implementation of GEF Focal Area Strategies and LDCF/SCCF Strategy, is to gain a better understanding of the elements, causal links and assumptions underlying the strategies as initially formulated, without incorporating the evolution of the strategy that occurred during its implementation. The implementation of the strategies through GEF-5 and LDCF/SCCF projects including the evolution since the formulation will be analyzed as part of OPS5. Accordingly, the current TOCs reflect the information as provided in the actual text of the strategy documents and results frameworks. While additional reports³ have been consulted to provide contextual information, this document strictly presents the TOC of the strategy itself, meaning that it is solely based on the strategy text plus documents that the strategy directly references.

³ Supporting documentation used for CCA Strategy TOC: "Financing Adaptation – Action", "Accessing Resources under the LDCF", and "Accessing Resources under the SCCF".

The construction of the TOCs proceeded in two steps. First, each strategy is disaggregated into its objectives in order to systematically identify different GEF activities articulated by the strategy, to assess the causal links between elements and to recognize the underlying assumptions these causal chains are based on. Second, the identified elements and causal links are consolidated in one overarching Strategy TOC, illustrating the causal pathways the strategy envisions and the underlying assumptions the pathways are based on. Throughout the TOC process, the evaluation team consulted with the respective GEF Secretariat teams to ensure correct interpretation of the strategy documents and establish agreement on the central aspects of the TOC.

Figures 2 shows examples for the relationship between the general categories of GEF activities as proposed by the General Framework and concrete activities described in GEF-5 Focal Area Strategies and the LDCF/SCCF Strategy. Figure 3 presents an example for a causal chain implicit in several strategies.

Figure 2: Categories of GEF activities; examples from GEF-5 FAS and LDCF/SCCF Strategies

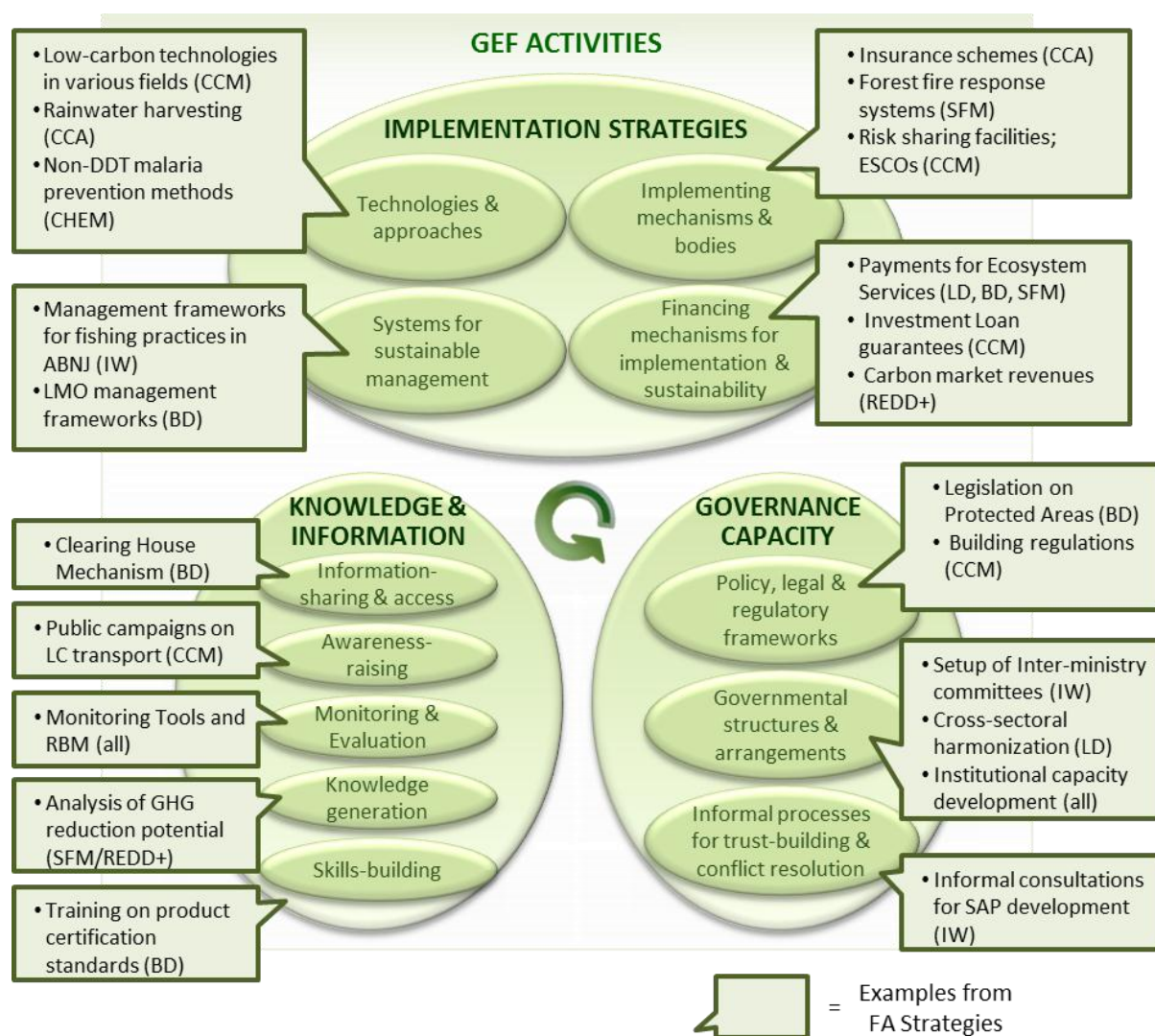
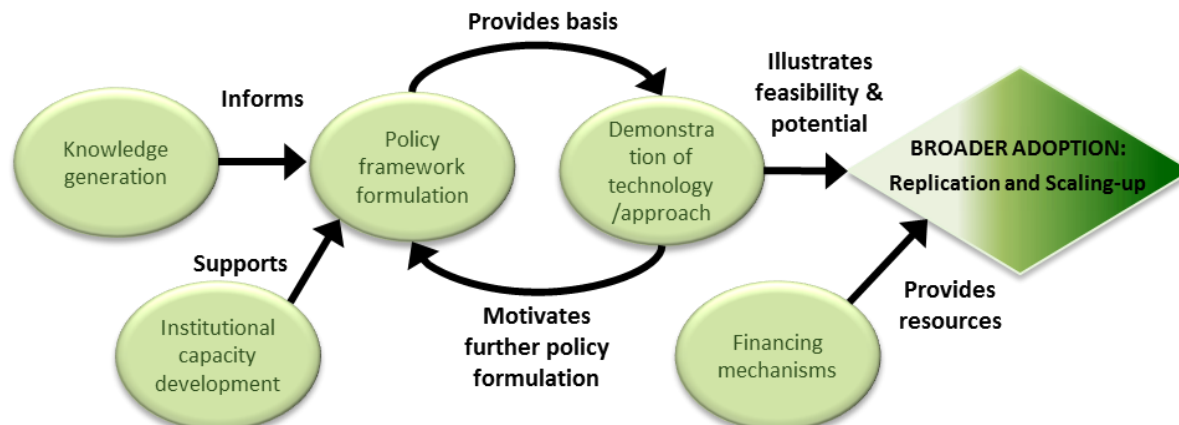


Figure 3: Example for frequent chain of causality implicit in several Focal Area Strategies



2.2 Construction of LDCF/SCCF Strategy TOC

CCA-1: Reduce vulnerability to adverse impacts of climate change, including variability, at local, national, regional, global level

Table 2: CCA-1 Funding Scenarios for funding levels at the beginning of the 2010-2014

Objective	Expected Outcomes	Outcome Targets Scenario 1	Outcome Targets Scenario 2	Outcome Targets Scenario 3	Core Outputs
CCA-1	Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Most LDCs and some SCCF-eligible countries are able to mainstream adaptation into selected sector plans and development frameworks at country level and in vulnerable areas.	Most LDCs and most SCCF-eligible countries are able to mainstream adaptation into many sector plans and development frameworks at country level and in vulnerable areas, but in a non-integrated manner; some able to implement a programmatic approach.	Most LDCs and some SCCF-eligible countries are able to implement a programmatic approach to adaptation across development frameworks at country level and in vulnerable areas.	Output 1.1.1: Adaptation measures and necessary budget allocations included in relevant frameworks
	Outcome 1.2: Reduced vulnerability to climate change in development sectors	Most LDCs and some SCCF-eligible countries are able to implement small to medium scale national level adaptation investments in one or two key vulnerable sectors and/or sub-regions.	Most LDCs and some SCCF-eligible countries are able to implement small to medium scale national adaptation investments in one or two key vulnerable sectors and/or sub-regions; some in programmatic manner.	Most LDCs and some SCCF-eligible countries are able to implement a programmatic approach to adaptation across development frameworks at country level and in vulnerable areas.	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability

	Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Some LDCs and some SCCF-eligible countries are able to showcase, on a pilot basis, options for diversified and strengthened livelihood strategies.	Most LDCs and some SCCF-eligible countries are able to showcase, on a pilot basis, options for diversified and strengthened livelihood strategies; some achieve replication and scaling up.	Some LDCs and some SCCF-eligible countries are able to replicate and scale up strengthened livelihoods and income strategies beyond pilots.	Output 1.3.1: Targeted individual & community livelihood strategies strengthened in relation to CC impacts, incl. variability
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Elements and chain of causality

CCA-1 entails activities aimed at reducing vulnerability, i.e. reduction of absolute losses from the adverse effects of climate change including variability. Corresponding LDCF/SCCF activities under CCA-1 support the incorporation of climate change considerations into existing policy and development frameworks (“mainstreaming”) as well as the implementation of adaptation measures based on the adjusted policy frameworks. Using the categories of the General TOC Framework, CCA-1 focuses on governance capacity and implementation strategies.

Activities under both categories are dependent on adequate mechanisms for the creation and dissemination of relevant knowledge and information which is primarily supported under CCA-2. The LDCF/SCCF strategy features several causal links between elements addressed by objective CCA-1 and objective CCA-2, creating causal chains reaching across objectives.

Governance capacity

The mainstreaming of adaptation into sector plans and development frameworks (outcome 1.1), i.e. the incorporation of potential effects of climate change in the design of policy, legal and regulatory frameworks, is one of the central objectives of the LDCF/SCCF strategy. CCA-1 supports activities to facilitate the emergence of governance frameworks that take adaptation needs into account and create an enabling environment for the implementation of adaptation measures across sectors. This includes assistance for the development and formulation of policies, legal and regulatory stipulations as well as strengthening of related institutional capacity.

One particular effort in this regard has been the formulation of National Adaptation Programmes of Action (NAPAs) in Least Developed Countries supported through the LDCF. The efforts to facilitate the formulation of NAPAs as a policy planning and prioritization tool have been largely concluded. LDCF activities envisioned under the LDCF/SCCF strategy are informed by the assessments and prioritizations reached through the NAPAs.

Implementation strategies

The implementation of adaptation measures to reduce vulnerability to climate change in different development sectors (outcome 1.2) represents a core element of the LDCF/SCCF strategy. Corresponding activities under CCA-1 strive to address the broad spectrum of priority areas as provided by UNFCCC COP guidance as well as NAPAs (see table 3). The scope and scale of these activities during 2010-2014 is dependent on the level of mobilized resources for the two funds.

Table 3: Priority Areas, LDCF/SCCF strategy (page 52)

LDCF (from NAPAs)	SCCF (from COP)
Water Resources Management	Water Resources Management
Agriculture/Food Security	Agriculture/Land Management
Health	Health
Disaster preparedness/Risk Management	Disaster Risk Management
Infrastructure	Infrastructure Development
Natural Resources Management	Fragile ecosystems
Community Level Adaptation	Integrated Coastal Zone Management
	Cross Cutting Issues

Supported adaptation measures cover a broad range of diverse activities, ranging from water harvesting to disease monitoring, from sea walls to grassland management. This reflects the nature of climate change adaptation as a cross-cutting, multi-sectoral challenge requiring action in many different fields. Individual LDCF/SCCF supported activities are therefore highly specific to the respective sector and local climatic conditions. This in turn highlights the importance of the LDCF/SCCF supported mainstreaming efforts across development sectors described above to create a governance framework and capacity that a diverse spectrum of adaptation measures can be based on. In addition, the causal link between the implementation of adaptation measures and the establishment of a favorable governance framework is reciprocal: a) policy mainstreaming provides the conditions for implementation, b) successful demonstration of feasibility and effectiveness of adaptation measures can facilitate and motivate intensified policy mainstreaming.

The diverse set of adaptation activities supported by the LDCF/SCCF can be summarized under the primary goal of facilitating the diversification and strengthening of livelihoods and sources of income for vulnerable people in targeted areas (outcome 1.3). Through adaptation investments, the LDCF/SCCF strategy envisions demonstrating the feasibility of adjusted and/or alternative livelihood strategies that decrease vulnerability to climate change in the long-term. The strategy strives to illustrate ways of effective strengthening of livelihoods to stakeholders on all levels: demonstration of alternative livelihood strategies to policy-makers can catalyze adaptation mainstreaming as described above; demonstration to affected communities improves their ability to sustainably employ adaptation measures, while also increase awareness and ownership that is necessary to create resilience that is sustainable over time.

The LDCF/SCCF strategy puts emphasis on addressing the CCA needs of the most vulnerable population groups. In this context, the LDCF/SCCF strategy articulates a specific focus on gender, stipulating that the activities supported under LDCF and SCCF will have to consciously take into account the gender specific differences in climate-related vulnerability. Vulnerability and risk assessments (see CCA-2) are to include gender specific considerations and adaptation measures under LDCF/SCCF have to employ a gender-conscious design and implementation process. This explicit focus on gender is also reflected in the LDCF/SCCF outcome indicators, which consistently disaggregate targets by gender.

Broader adoption and behavioral change

The combination of activities under CCA-1 aim at facilitating:

- a) The broader and continuous mainstreaming of climate change considerations into policies, sector plans and development frameworks across an increasing spectrum of sectors. CCA-1 activities on governance capacity assist the development of corresponding policies, setting examples and demonstrating best practices to be used for further mainstreaming efforts (with and beyond LDCE/SCCF support) in the future. These efforts are envisioned to catalyze behavioral change among policy decision-makers towards active consideration of climate change implications in the development of policy, legal and regulatory frameworks. The demonstration of the feasibility and effectiveness of adaptation measures and alternative livelihood strategies is sought to further intensify commitment to adaptation mainstreaming.
- b) The replication and scaling-up of demonstrated adaptation practices (with and beyond LDCE/SCCF support) ultimately leading to comprehensive diversification and strengthening of livelihoods and income strategies across sectors. The demonstration of the feasibility and effectiveness of adaptation measures is envisioned to trigger replication and scaling-up as well as create awareness and ownership in affected communities facilitating the long-term employment of diversified, strengthened livelihood strategies.

Key Assumptions underlying CCA-1:

- To reduce vulnerability, climate change considerations have to be broadly incorporated into policy, legal and regulatory frameworks across sectors → LDCE/SCCF support can effectively facilitate this mainstreaming process
- Effective measures for diversifying and strengthening livelihoods in the face of adverse climate change effects exist and their implementation is feasible
- LDCE/SCCF support for implementing and demonstrating such measures will in most cases lead to successful reduction of vulnerability, thus increasing recognition among stakeholders and catalyzing replication and scaling up as well as further policy mainstreaming

CCA-2: Increase adaptive capacity to respond to CC impacts, including variability, at local, national, regional, global level

Table 4: CCA-2 Funding Scenarios for funding levels at the beginning of the 2010-2014

Objective	Expected Outcomes	Outcome Targets Scenario 1	Outcome Targets Scenario 2	Outcome Targets Scenario 3	Core Outputs
CCA-2	Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas	Most LDCs and some SCCF-eligible countries are able to conduct and update VAs and disseminate risk information for selected development sectors at country level and in targeted vulnerable areas. Most have basic systems in place for the dissemination of risk information.	Most LDCs and some SCCF-eligible countries are able to conduct and update VAs and disseminate risk information for selected development sectors at country level and in targeted vulnerable areas; some in an integrated manner, across development sectors. Some have systems in place for the dissemination of risk information, with national-level coordination support.	Most LDCs and some SCCF-eligible countries are able to conduct and update integrated vulnerability assessments and disseminate risk information capturing climate induced threats across national development sectors. Some LDCF and SCCF-eligible countries have early warning systems in place through regionally coordinated interventions.	Output 2.1.1: Risk and vulnerability assessments conducted and updated Output 2.1.2: Systems in place to disseminate timely risk information
	Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Some LDCs and some SCCF-eligible countries are able to rapidly respond to some extreme weather events through early warning systems and risk reduction measures.	Some LDCs and some SCCF-eligible countries are able to rapidly respond to most extreme weather events through early warning systems and risk reduction measures.	Some LDCs and some SCCF-eligible countries are able to anticipate and rapidly respond to the majority of predicted EWEs through early warning systems and comprehensive risk reduction measures, and most of the targeted pop. is covered by some risk reduction measures.	Output 2.2.1: Adaptive cap. of nat./reg. centers & networks strengthened to rapidly respond to EWEs Output 2.2.2: Targeted population groups covered by adequate risk reduction measures
	Outcome 2.3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	A most of local populations in most LDCs and some SCCF-eligible countries is aware of climate change and has some degree of ownership for local adaptation and climate risk reduction processes.	The majority of local populations in most LDCs and some SCCF-eligible countries is aware of climate change and has some degree of ownership for local adaptation and climate risk reduction processes.	The majority of local population in most LDCs and some SCCF-eligible countries is aware of CC and has high degree of ownership for local adapt. & climate risk reduction processes. Processes are in place for further learning and exchange of info. with other vulnerable groups.	Output 2.3.1: Targeted population groups participating in adaptation and risk reduction awareness activities

Elements and chain of causality

CCA-2 comprises activities to support the creation of adaptive capacity to respond to adverse climate change effects. In comparison with activities under CCA-1, which are designed to adjust current livelihood methods in light of climate change, CCA-2 emphasizes the ability to prepare for and respond to the concrete risks and losses related to climate change and variability. Accordingly, CCA-2 supports systems and capacity for the generation of knowledge on specific risks and vulnerability and the dissemination of this information to relevant stakeholders increasing their preparedness and responsive capacity. Based on improved knowledge mechanisms, CCA-2 supports the development and implementation of systems to reduce losses through adequate preparation and response and compensate for remaining losses incurred.

CCA-1 and CCA-2 are closely related and causal chains reach across objectives. Knowledge systems supported under CCA-2 also provide the basis for the design of adaptation measures implemented under CCA-1. In addition, systems for loss reduction and compensation under CCA-2 partially overlap with measures implemented under CCA-1, for example in the priority area of Disaster Risk Management.

Knowledge & Information

LDCF and SCCF do usually not provide support for specific vulnerability assessments in preparation for adaptation measures, but assume these assessments to be primarily funded from other sources and be available before the respective LDCF/SCCF activity starts.

However, at the systemic level support for knowledge and information activities plays an important role in the LDCF/SCCF Strategy. Under Outcome 2.1, the strategy highlights support for the establishment of knowledge systems and corresponding capacity on climate-related risks and vulnerability as well as the dissemination of this information to raise awareness, increase ownership and influence behavior of stakeholders on different levels. The strategy envisions LDCF/SCCF support to establishing the necessary knowledge mechanisms for designing and implementing adaptation measures that are effective and efficient within the given national and local context and climatic conditions. In order to create sustainable adaptive capacity in affected communities, local level information, awareness, and ownership play an important role and are highlighted by the LDCF/SCCF Strategy as one of the goals of supported knowledge and information activities.

The knowledge & information activities under CCA-2 represent the starting point for causal chains that directly connect CCA-2 and CCA-1:

- a) **Link between knowledge and mainstreaming:** The generation and dissemination of knowledge on climate-related vulnerability and risks, disclosing the full costs of climate change effects, can heighten political awareness and increase political priority of CCA, which in turn facilitates CCA mainstreaming (see CCA-1). In addition, the increase in knowledge among policy-makers serves to improve the quality and specificity of mainstreaming efforts.
- b) **Link between knowledge and implementation:** The creation and dissemination of vulnerability information, improving the knowledge level of different stakeholder groups involved in the design and implementation of adaptation measures, provides the basis for de-

signing effective and efficient measures that correspond with particular national and local vulnerability conditions and provide a targeted response to the specific risks a certain geographic area is faced with. In addition, increase knowledge about the potential costs of climate change including variability can facilitate the subsequent replication and scaling-up of demonstrated adaptation measures by increasing political recognition, awareness and local ownership.

On the other hand, implementation of adaptation measures can provide valuable feedback for the knowledge creation and dissemination process. Especially in climate change adaptation, a comparably new area for multilateral interventions, learning-by-doing and lessons learned represent an important part of knowledge creation.

Implementation strategies

Implementation of adaptation measures supported under CCA-2 partially overlap with the implementation activities under CCA-1. However, compared with the encompassing set of activities supported under CCA-1, CCA-2 features a more specific focus on the response capacity to risks and losses caused by the effects of climate change, namely extreme weather events. The LDCF/SCCF strategy points to two general categories of corresponding measures:

- a) Loss prevention: Based on knowledge and information activities described above, the LDCF/SCCF strategy supports activities that will reduce losses in case of extreme weather events through preparation and extreme weather response measures. In this context, the strategy envisions for example support for early warning systems as well as disaster preparedness and response activities.
- b) Loss compensation: With regard to losses incurred due to the effects of climate change including variability, the LDCF/SCCF strategy supports instruments to compensate the most vulnerable population groups and redistribute losses across society. The strategy highlights the importance of fiscal instruments in this context (see below).

The LDCF/SCCF highlights support for **fiscal instruments** to distribute risks and losses from climate change effects. The strategy explicitly presents three categories of instruments (see LDCF/SCCF strategy, page 9).

- a) Tax incentives: “tax-breaks for climate appropriate reconstruction after disasters;”
- b) Insurance: “government supported insurance programs and policies for farmers, coastal and other vulnerable communities linked to climate appropriate investments and behaviors;”
- c) Economic planning: “assistance to help governments take climate change risks into account in their national economic planning.”

Broader adoption and behavioral change

CCA-2 builds on the improvement of knowledge on the particular risks and vulnerability in a given context through vulnerability assessments. In the next step, this knowledge is envisioned to be disseminated to stakeholders relevant for the implementation of responsive measures, increasing their capacity to continuously expand and improve response systems and **mainstream response capacity** into policy making. Based on enhanced knowledge and awareness, CCA-2 includes direct support for the development of response systems for prevention of losses from cli-

mate change as well as for compensation of remaining losses protecting the most vulnerable population groups. Analogous to CCA-1, demonstration of the feasibility of responsive systems is envisioned to **facilitate replication and scaling-up** of such systems and instruments.

Key Assumptions underlying CCA-2:

- Increased ability to generate and disseminate knowledge on risks and vulnerability to climate change will increase responsive capacity and improve the effectiveness of corresponding response systems and instruments
- Efforts to disseminate relevant knowledge to stakeholders involved in the development and implementation of response systems are necessary to facilitate creation of adaptive capacity, especially with regard to local level awareness and ownership in affected communities
- Measures (e.g. early warning systems) to effectively increase adaptive capacity to respond to climate change exist and their deployment can be facilitated through LDCF/SCCF support
- Compensatory instruments should be in place to distribute risks and losses from climate change among a broader population base and thereby alleviate pressure on most vulnerable population groups

CCA-3: Promote transfer and adoption of adaptation technology

Table 5: CCA-2 Funding Scenarios for funding levels at the beginning of the 2010-2014

Objective	Expected Outcomes	Outcome Targets Scenario 1	Outcome Targets Scenario 2	Outcome Targets Scenario 3	Core Outputs
CCA-3	Outcome 3.1: Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas	Some LDCs and some SCCF-eligible countries are able to successfully deploy relevant adaptation technologies in selected development sectors.	Most LDCs and some SCCF-eligible countries are able to successfully deploy relevant adaptation technologies in selected development sectors; some are able to do so in an integrated, programmatic manner across development sectors.	Most LDCs and some SCCF-eligible countries are able to successfully deploy relevant adaptation technologies in an integrated, programmatic manner across development sectors.	Output 3.1.1: Relevant adaptation technology transferred to targeted groups
	Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer	Most LDCs and some SCCF-eligible countries are able to set up enabling environments for technology transfer and train selected stakeholders in transfer of adaptation technology.	Most LDCs and some SCCF-eligible countries are able to set up enhanced enabling environments for technology transfer and train selected stakeholders in transfer of adaptation technology; some in a programmatic way/taking advantage of regional platforms when appropriate.	Most LDCs and some SCCF-eligible countries are able to implement a more integrated and programmatic approach for technology transfer and train most relevant stakeholders in transfer of adaptation technology.	Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology

Elements and chain of causality

Activities supported under CCA-3 are based on the assumption that project beneficiaries do not have full access to already existing and suitable adaptation technology and in some cases lack local level capacity to employ these technologies. Reacting to this challenge, CCA-3 addresses the transfer and adoption of adaptation technology. By providing support for technology transfer, CCA-3 activities directly benefit the goals of objectives CCA-1 and CCA-2. The details of LDCF/SCCF activities in support of adaptation technology transfer are, however, not comprehensively described in the LDCF/SCCF strategy.

Enabling environment

In order to create an enabling environment for technology transfer, CCA-3 includes support for the development, formulation and mainstreaming of policy, legal and regulatory framework facilitating adaptation technology transfer and establishing the necessary policy and legal instruments. In addition, CCA-3 includes support for the training of relevant stakeholders to increase the skills and individual knowledge necessary for transfer of adaptation technology, while at the same time increasing stakeholder awareness and ownership.

Implementation strategies

CCA-3 envisions support for the demonstration, deployment, and transfer of adaptation technology in targeted areas (analogous to Climate Change Mitigation technologies under objective 1 of the CCM Focal Area Strategy). The strategy aims at enabling countries to successfully deploy these technologies in selected development sectors. Scope and scale of technology deployment is dependent on the availability of resources. The LDCF/SCCF Strategy does not elaborate on the details of these activities.

Broader adoption and behavioral change

By providing technical assistance for the creation of an enabling policy, legal and regulatory environment for technology transfer, CCA-3 envisions catalyzing mainstreaming of adaptation technology transfer into policies and development frameworks. The demonstration and deployment of transferred technology options, showing feasibility and effectiveness, is sought to facilitate and motivate replication and scaling-up.

Key Assumptions underlying CCA-3:

- Access to suitable adaptation technology and the national and local level capacity to employ this technology represents a necessary prerequisite for the effective implementation of many adaptation measures
- LDCF/SCCF support can effectively facilitate processes of technology transfer removing technology barriers to the implementation of adaptation measures
- Demonstration of adaptation technologies will facilitate replication and scaling-up

2.3 Overall TOC for LDCF/SCCF strategy on climate change adaptation

In order to achieve its ultimate goal “**to support developing countries to increase resilience to climate change through both immediate and longer term adaptation measures in development policies, plans, programs, projects and actions**” the LDCF/SCCF Strategy has to address a number of significant challenges: limitations of knowledge on location specific vulnerability; limited prior experience on adaptation in practice requiring learning-by-doing approaches; limitations in the availability of necessary adaptation technology in recipient countries; the cross-sector nature of climate change risks requiring a diverse set of actions; the constantly evolving character of climate change threats requiring continuous adjustment of adaptation measures over time; to name but a few. The LDCF/SCCF Strategy aims to tackle these challenges despite volatile and unpredictable resource availability that renders the formulation of clear target indicators impossible.

Facing the evolving challenge of adverse climate change effects requires continuous adjustments of responses in all development sectors. This can only be achieved through a comprehensive adaptive capacity from the national to the local level. Ultimately, LDCF/SCCF activities are supporting developing countries in creating this long-term adaptive capacity. The corresponding elements and their causal links envisioned by the LDCF/SCCF Strategy can be classified in four causal pathways that reach across the strategy’s three objectives:

Causal pathway 1: Understanding the challenge

Limitations of capacity to generate information on likely climate change effects in specific geographic areas and the corresponding vulnerability of relevant development sectors constitute the first barrier to the design and implementation of effective adaptation responses. While not funding individual vulnerability assessments, LDCF/SCCF under Outcome 2.1 supports the creation of mechanisms and systematic capacity to generate and disseminate climate-related information. The strategy particularly stresses the importance of considerations on the gender specific differences in climate-related vulnerability in this context (see section on CCA-1, page 12).

Knowledge and information activities envisioned in the LDCF/SCCF Strategy mainly address two stakeholder groups:

- a) **Policy decision-makers:** Increasing policy decision-makers’ information and awareness on the potential effects of climate change, their full social and economic costs, is envisioned to intensify political engagement in CCA and facilitate mainstreaming efforts.
- b) **Local communities:** The increase of information and awareness within affected communities about the specific risks and threats they face relating to climate change can serve to include local communities in the design and implementation of adaptation measures, improve immediate effectiveness and efficiency while creating local ownership and, ultimately, long-term adaptive capacity of affected communities (Output 2.3.1 “Targeted population groups participating in adaptation and risk reduction awareness activities”).

Causal pathway 2: Creating favorable conditions for effective responses

An important building block to facilitate the creation of long-term adaptive capacity is the establishment of functioning support systems as well as the general availability of technologies and best practices needed to respond effectively to immediate as well as long-term climate change challenges. The LDCF/SCCF Strategy puts emphasis on support for the mainstreaming of climate change considerations into policies, sectoral planning and development frameworks. This includes assistance for the development and formulation of policies, legal and regulatory stipulations as well as strengthening of related institutional capacity. Mainstreaming is envisioned to create an enabling framework for the implementation of adaptation measures across sectors based on the knowledge and information available today (see Causal pathway 3), but it also strives to create a governance capability to continuously incorporate climate change adaptation needs, including newly emerging information, into policies, legal and regulatory stipulations.

In addition to an enabling governance framework, the LDCF/SCCF Strategy addresses access to adaptation technology and the increase of corresponding technological capacity in order to provide recipient countries with the best possible choice of adaptation measures. In order to increase technology availability, the LDCF/SCCF Strategy envisions support for technology transfer and deployment including training of relevant stakeholders. Detailed information on technology transfer activities envisioned by the LDCF/SCCF Strategy is not included in the strategy text.

Causal pathway 3: Demonstrating feasible and effective options

At the center of the LDCF/SCCF Strategy is the implementation of a range of adaptation measures across priority sectors to demonstrate their feasibility and effectiveness and catalyze broader adoption through replication and scaling up. The implementation of measures has a reciprocal relationship with the elements of the two causal pathways described above:

Link with Causal pathway 1: The design and implementation of adaptation measures supported under the LDCF/SCCF is in many cases based on functioning systems to provide vulnerability and risk related information. In addition, implementation of adaptation measures builds on the level of information and awareness of relevant stakeholders, especially policy makers that decide on the realization of adaptation projects and local communities who are directly involved in the implementation of the respective adaptation measure. In this sense, the implementation of adaptation measures is crucially dependent on the success of causal pathway 1. On the other hand, the implementation of adaptation measures can provide feedback for knowledge creation and dissemination. Especially in climate change adaptation, a comparably new area for multilateral interventions, learning-by-doing and lessons learned represent an important part of knowledge creation. Thus, implementation and knowledge activities can form a mutually reinforcing relationship.

- c) **Link with Causal pathway 2:** The same is true for the implementation of adaptation measures and the creation of an enabling governance framework. On the one hand, implementation is politically and legally based on the corresponding frameworks in place and therefore dependent on the existing environment. On the other hand, the awareness raising effect of successful implementation can also increase political engagement and motivation, facilitating further improvements and expansion of CCA mainstreaming and governance capacity.

Besides these reinforcing relationships with other objectives under the LDCF/SCCF Strategy, the implementation of adaptation measures aims to achieve two closely interrelated goals:

- a) **First, the immediate effect of the measure itself:** For the affected community, sector and/or region selected for the implementation of LDCF/SCCF adaptation measures, the activity strives to make a direct impact, increasing local resilience to adverse climate change effects and securing livelihoods while at the same time raising knowledge, awareness and ownership in the respective communities thereby facilitating the development of local adaptive capacity.
- b) **Second, the catalytic effect towards broader adoption:** Through the implementation of successful adaptation measures, the LDCF/SCCF Strategy strives to demonstrate their feasibility and effectiveness in reducing vulnerability. The demonstration as well as learning effect of implementation activities strives to create recognition of alternative practices among different stakeholder groups and trigger replication and scaling-up with and beyond direct LDCF/SCCF support. This main goal of Causal pathway 3 is crucially dependent on the success (as perceived by stakeholders) of the implementation activities.

In sum, Causal pathway 3 of the LDCF/SCCF Strategy seeks to illustrate, establish and anchor effective strategies for the **diversification and strengthening of livelihoods and sources of income** in developing countries, offering stakeholders effective choices and best practices (supported by increased availability of adaptation technologies) to decrease vulnerability to climate change and climate variability in the long-term.

Causal pathway 4: Protecting the most vulnerable against remaining risks

Embedded in the activities described under Causal pathways 1-3, the LDCF/SCCF Strategy puts special emphasis on the protection of the most vulnerable population groups against remaining risks from climate change. Even with long-term adaptation measures in place and vulnerability reduced, immediate risks and potential losses caused by the effects of climate change, namely extreme weather events, remain. Reacting to this challenge, the LDCF/SCCF Strategy envisions support for strengthening adaptive capacity to respond to adverse climate change effects, highlighting two categories of measures which are closely causally linked to the other elements of the strategy described above:

- a) **Loss prevention:** Based on vulnerability assessments, the LDCF/SCCF strategy supports activities that will reduce losses in case of extreme weather events through preparation and extreme weather response measures. In this context, the strategy envisions for example support for early warning systems as well as disaster preparedness and response activities.
- b) **Loss compensation:** With regard to losses incurred due to the effects of climate change including variability, the LDCF/SCCF strategy supports instruments to compensate the most vulnerable population groups and redistribute losses across society. The strategy highlights the importance of fiscal instruments in this context, including “tax-breaks for climate appropriate reconstruction after disasters”, “government supported insurance programs and policies” for the most vulnerable population groups, as well as incorporation of climate change risks into overall national economic planning.

The LDCF/SCCF Strategy envisions increasing recipient countries' overall capacity to continuously expand and improve response systems and **mainstream response capacity** into policy making. Analogous to Causal pathway 3, direct support for the development of response systems is envisioned to demonstrate feasibility and effectiveness, **facilitating replication and scaling-up** of such systems and instruments.

Key Assumptions underlying the Strategy on Adaptation to Climate Change for the LDCF and SCCF:

- To reduce vulnerability, climate change considerations have to be broadly incorporated into policy, legal and regulatory frameworks across sectors → LDCF/SCCF support can effectively facilitate this mainstreaming process
- Effective measures for diversifying and strengthening livelihoods in the face of adverse climate change effects exist and their implementation is feasible
- LDCF/SCCF support for implementing and demonstrating such measures will in most cases lead to successful reduction of vulnerability, thus increasing recognition among stakeholders and catalyzing replication and scaling up as well as further policy mainstreaming
- Increased ability to generate and disseminate knowledge on risks and vulnerability to climate change will increase responsive capacity and improve the effectiveness of corresponding response systems and instruments
- Efforts to disseminate relevant knowledge to stakeholders involved in the development and implementation of response systems are necessary to facilitate creation of adaptive capacity, especially with regard to local level awareness and ownership in affected communities
- Measures (e.g. early warning systems) to effectively increase adaptive capacity to respond to climate change exist and their deployment can be facilitated through LDCF/SCCF support
- Compensatory instruments should be in place to distribute risks and losses from climate change among a broader population base and thereby alleviate pressure on most vulnerable population groups
- Access to suitable adaptation technology and the national and local level capacity to employ this technology represents a necessary prerequisite for the effective implementation of many adaptation measures
- LDCF/SCCF support can effectively facilitate processes of technology transfer removing technology barriers to the implementation of adaptation measures; demonstration of adaptation technologies will facilitate replication and scaling-up

2.4 Framework diagrams for TOC construction

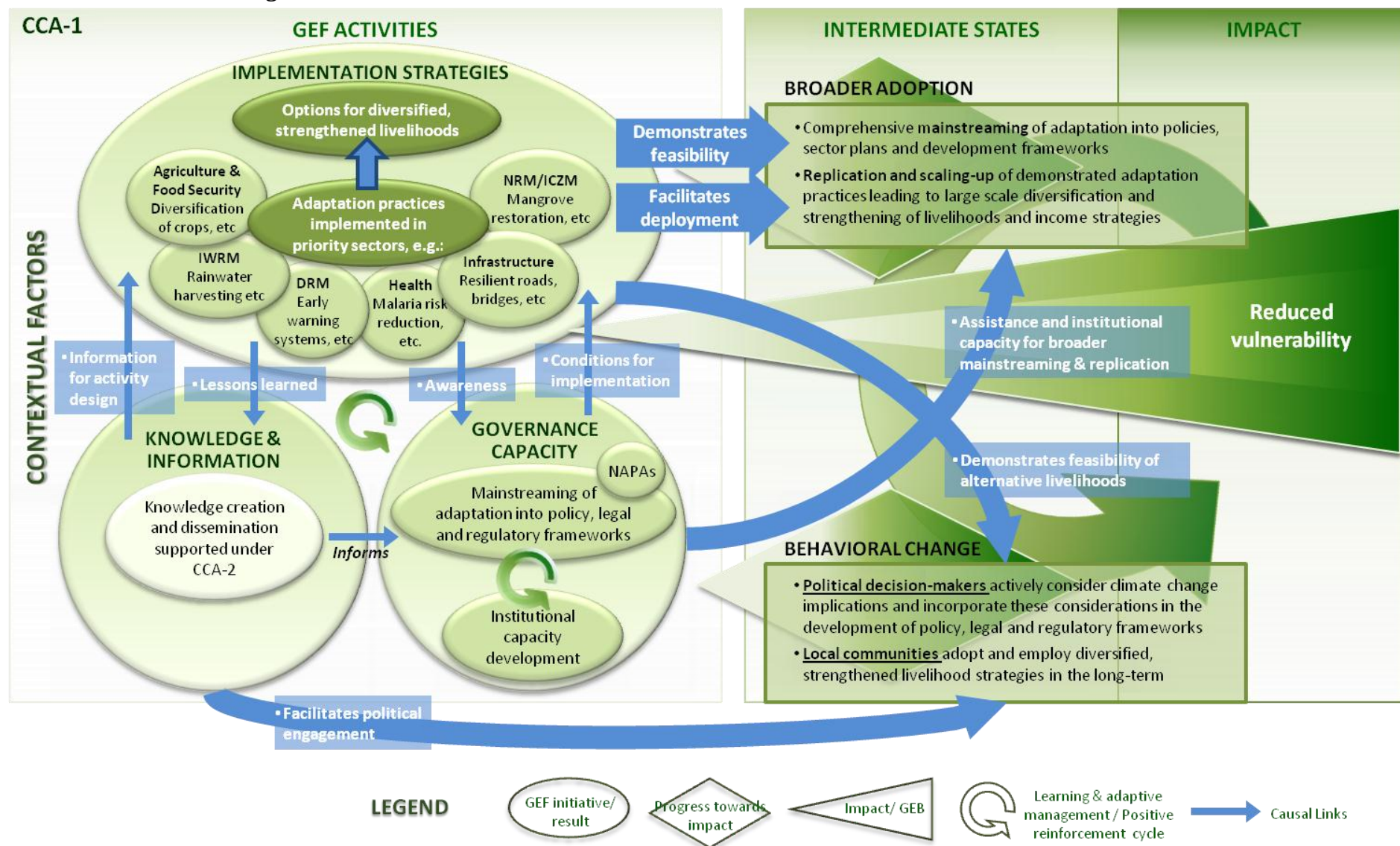


Figure 4: Elements and causal links of CCA-1

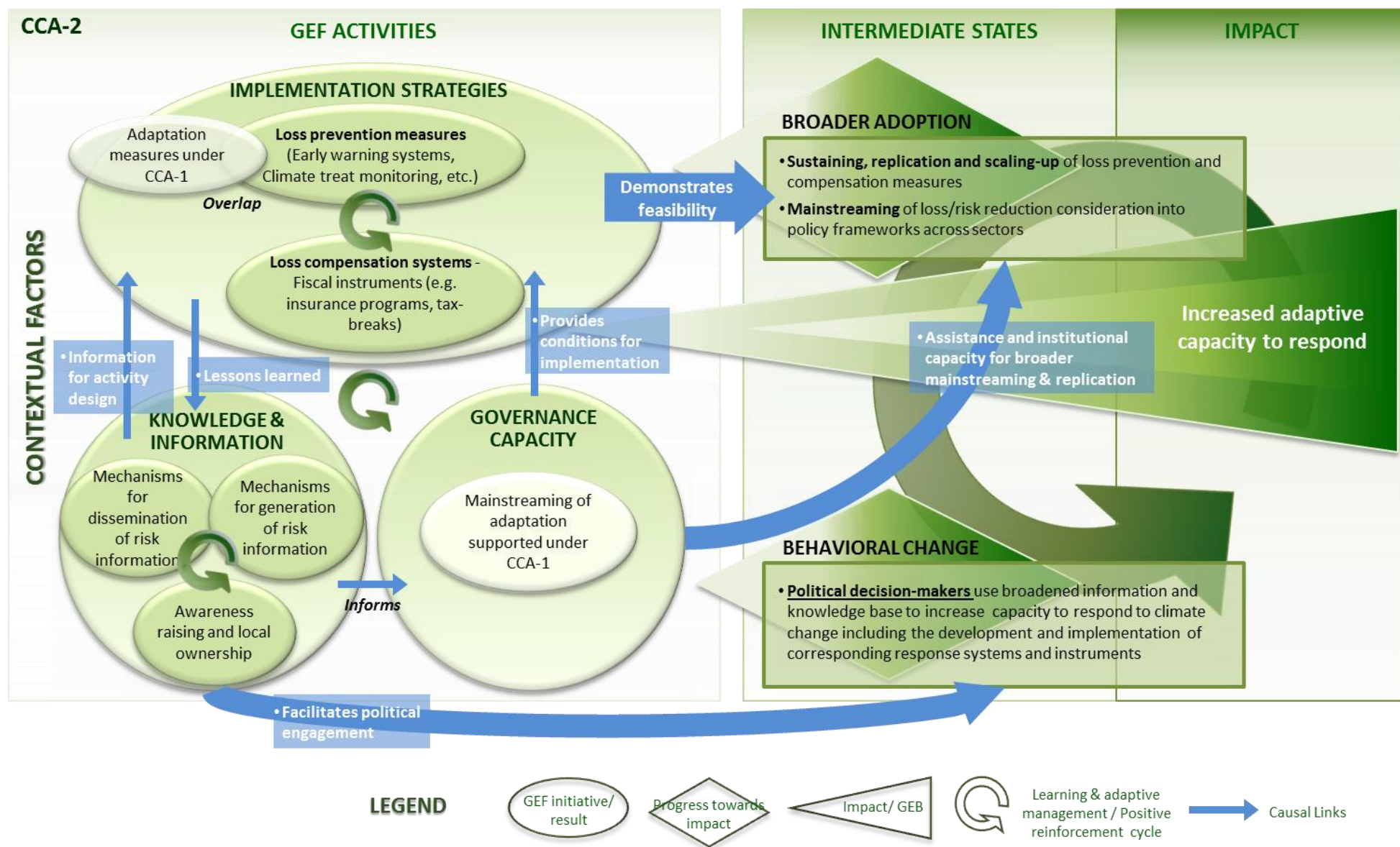


Figure 5: Elements and causal links of CCA-2

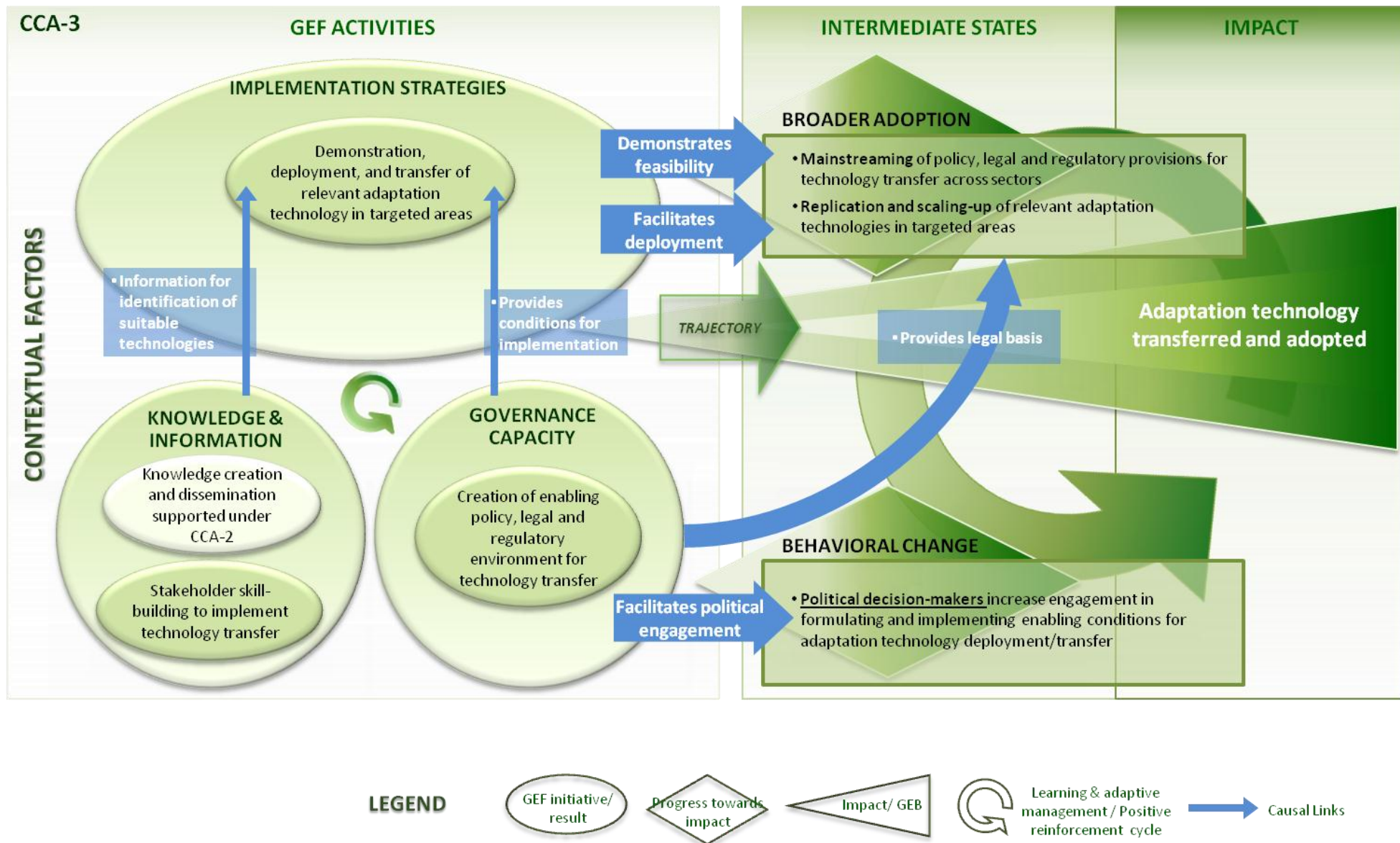


Figure 6: Elements and causal links of CCA-3

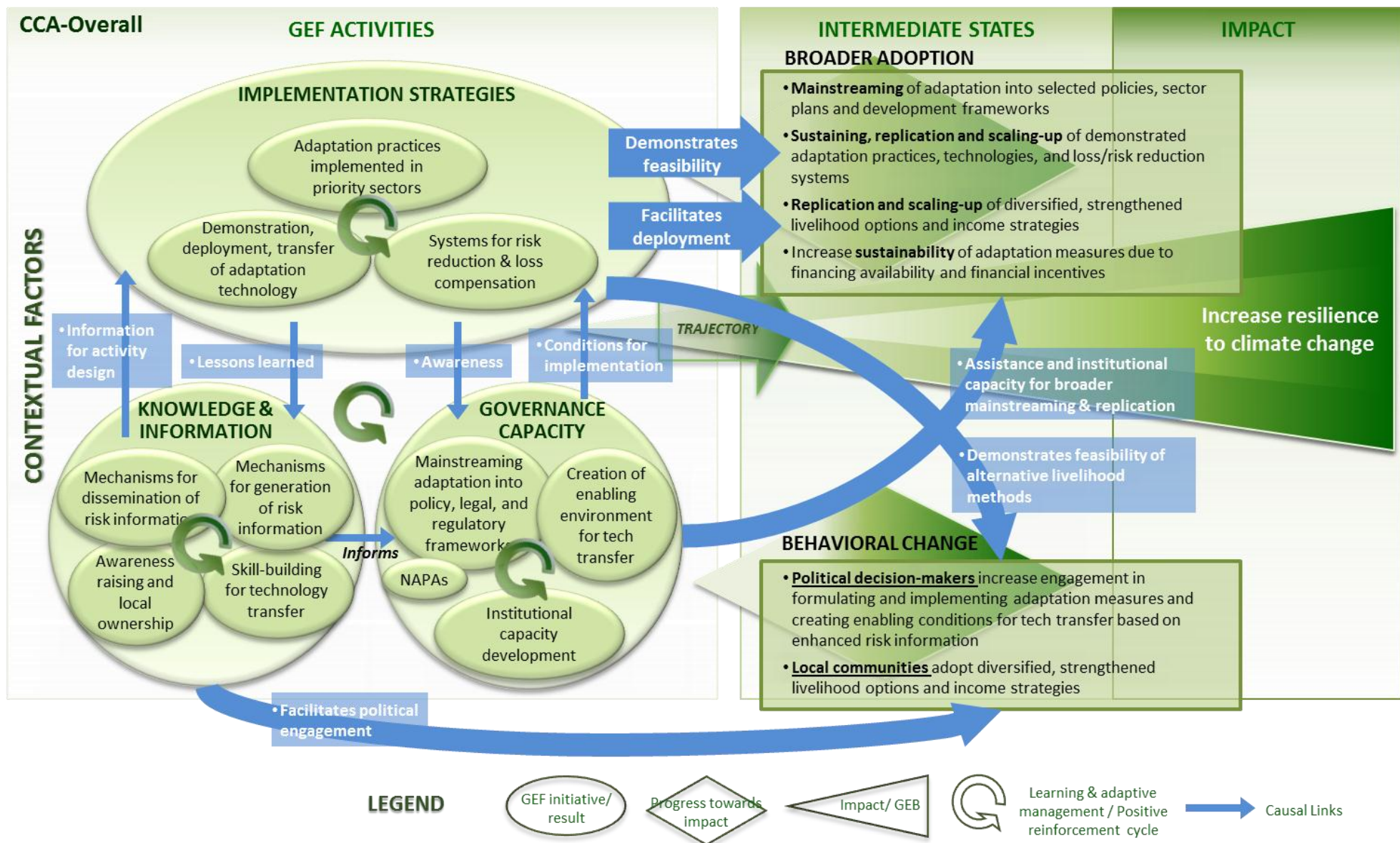


Figure 7: Elements and causal links of the LDCF/SCCF Strategy on CCA

3. ANALYSIS OF CONVENTION GUIDANCE

3.1 Approach to convention guidance

One factor that influences the characteristics of the GEF Focal Area Strategies is the guidance the GEF receives from the Conference of the Party (COP) of international conventions. The influence of convention guidance on the GEF Focal Area Strategies is particularly important in the context of international conventions the GEF serves as financial mechanisms, namely the CBD, UNFCCC, UNCCD and the Stockholm Convention. Accordingly, the analysis of convention guidance primarily focuses on GEF support in the areas of Biodiversity, Climate Change, Land Degradation and Chemicals. In order to assess the way in which Focal Area Strategies reflect convention guidance the *Evaluation of GEF Focal Area Strategies* conducted a full review of convention guidance issued by the COPs. The review includes the identification of guidance relevant to the GEF, a quantitative analysis of guidance over time, and a qualitative classification of each individual item of COP guidance. The full compilation of COP guidance can be found in Technical Paper 8.

Based on the guidance review, the *Evaluation of GEF Focal Area Strategies* conducted a “Guidance-Strategy-Mapping” identifying the links between guidance and Focal Area Strategies. The mapping illustrates how topics raised by the convention are reflected in the strategies and how the strategies in turn are shaped by different kinds of guidance. Stakeholder interviews, especially with the GEF Secretariat and convention secretariats, provided additional information for the analysis of the relationship between Focal Area Strategies and convention guidance.

3.2 Quantitative summary of UNFCCC guidance

Note: One “item” of guidance is defined as a distinguishable piece of information within a COP decision, usually a paragraph or sub-paragraph.⁴

Classification of UNFCCC guidance to the GEF by themes

Table 6: UNFCCC COP guidance to the GEF with guidance on CCA highlighted

Theme/COP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TO-TAL
I. OVERALL																		
General	1	3		1								1						6
LDCF general						1	1											2
SCCF general						2	1											3
AF general							1											1

⁴ On counting COP guidance: The table summarizing convention guidance to the GEF presented in OPS4 counts the number of Articles in COP Decisions directed to the GEF. The numbers presented in figure 7, which will also be used for OPS5, count all items of guidance defined as a “distinguishable piece of information within a COP decision” (usually a paragraph or sub-paragraph). Accordingly, the reported number is significantly higher than in OPS4.

Funding principles (general)	7	3					3	1					1			2		17
CCA funding principles	1			1														2
LDCF – Funding principles								4	1		7							12
SCCF – Funding principles									2			1						3
Eligibility Criteria	1																	1
II. FUNDING PRIORITIES																		
Funding priorities (general)	1													1		1	1	4
Research and systematic observation				1			7		1	1								10
Education, training and public awareness	2			1			5	2	1	3		1	2			2		19
National communications		3		2	2		1	1	1	2	1	2	5	4		4		28
National communications follow-up							1				1		1	2		1		6
National programs & planning	3			1			2									1	1	8
Capacity Development	1	1		1			3	1	1	6		3		1			1	19
Technology transfer and TNAs				1			1	1				3	5	3				14
Response measure impacts										2								2
Carbon Capture and Storage											1							1
LULUCF												1						1
Energy efficiency												1						1
Biennial update report																	3	3
Technology Mechanism																	2	2
Green Climate Fund																	1	1
CCA funding priorities (general)	1					2						1				1		5
CCA preparation activities (stage II)						3												3
CCA disaster preparedness						3												3
LDCF – Funding priorities (general)						1	2				1					1		5
LDCF - National								3	1					2		2		8

Adaptation Programs of Action (NAPAs)																		
LDCF - LDC work program													1					1
LDCF - National Adaptation Plans (NAPs)																3		3
SCCF – Funding priorities (general)						1	2											3
SCCF - Adaptation overall (SCCF-A)									2									2
SCCF - Health							1		1									2
SCCF - Disaster management							2		2									4
SCCF - Technology transfer (SCCF-B)									2									2
SCCF - Sectors (SCCF-C)												5						5
SCCF - Diversification (SCCF-D)												5						5
III. OPERATIONAL ISSUES																		
Reporting & provision of additional information	1	4		1			3	4	1	4	2	3	3	3		2	2	33
LDCF reporting								1	1		1			1		1		5
SCCF reporting									1			1						2
Resource mobilization	1	1								1		1	1	1				6
SCCF Resource mobilization									1			1						2
LDCF Resource mobilization														1				1
Resource allocation												1		1		1		3
Resource approval and disbursement		1		3			5	2				1				4		16
SCCF Resource approval and disbursement									1									1
LDCF Resource approval and disbursement														1				1
Implementation of COP guidance								1				1				1		3
Incremental costs	1							1					1					3
Geographical con-												2		1				3

sideration																			
Knowledge man- agement													1			1			2
Dialogue with COP secretariat			1																1
Dialogue with GEF agencies					1			2					1	3					7
Dialogue with countries													1	1					2
TOTAL		21	17	0	14	2	7	49	22	20	19	14	36	22	26	0	25	14	308
Specific CCA guidance		2	0	0	1	0	7	16	8	15	0	9	14	0	6	0	5	3	86

Overall amount of guidance

Figure 8: Overall amount of guidance to the GEF by UNFCCC COP

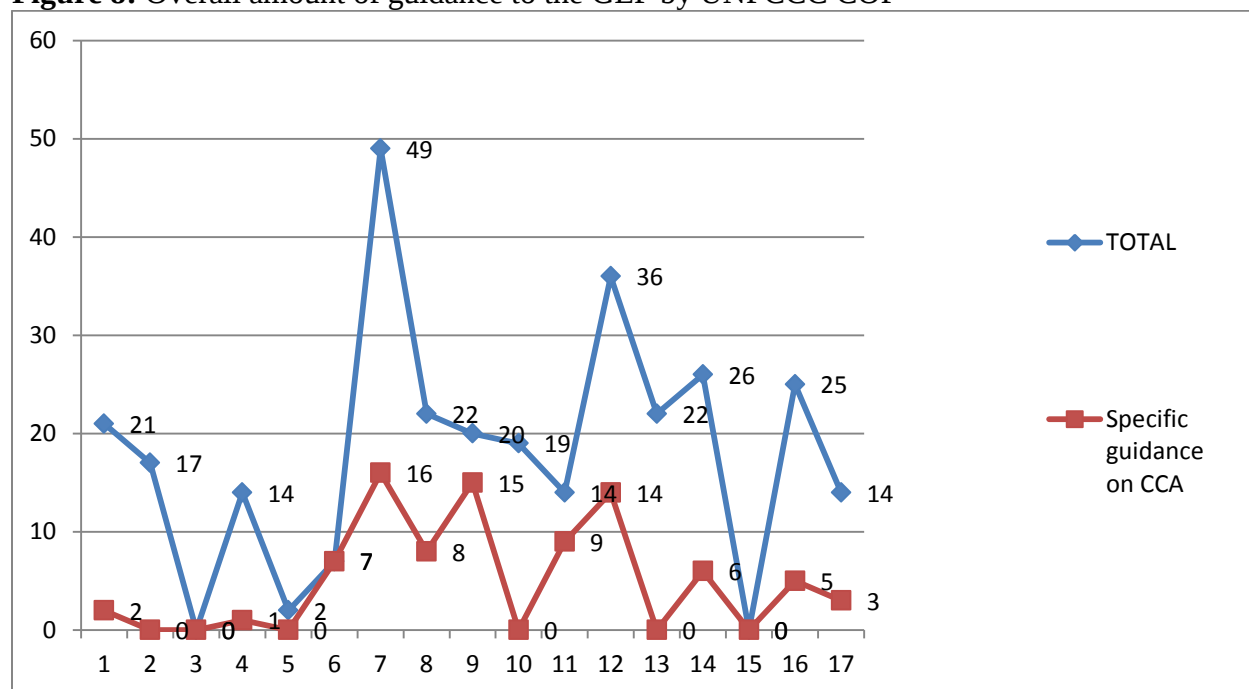
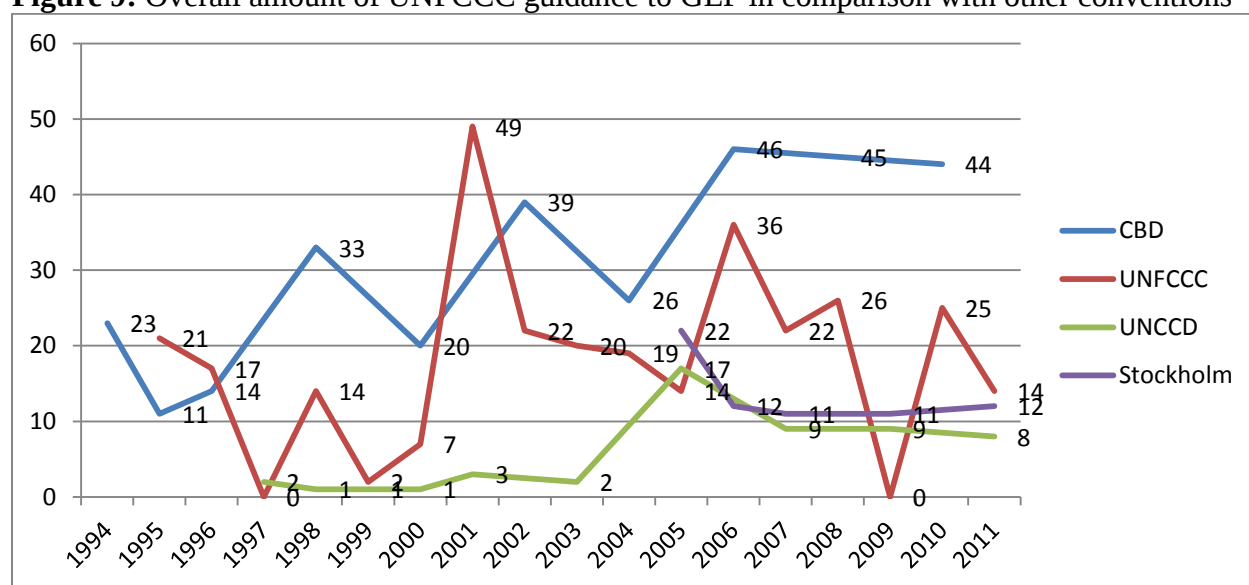


Figure 9: Overall amount of UNFCCC guidance to GEF in comparison with other conventions



Convention	CBD	UNFCCC	UNCCD	Stockholm
Time period	1994-2010	1995-2011	1997-2011	2005-2011
Cumulative items of Guidance	301	308	53	68

First COP mentioning of different program priorities

Table 7: Chronology of UNFCCC COP guidance to the GEF

Theme/COP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Education, training and public awareness	X																
National programs & planning	X																
Capacity Development	X																
CCA funding priorities (general)	X																
National communications		X															
Research and observation				X													
Technology transfer and TNAs				X													

LDCF – Funding priorities (general)						X											
SCCF – Funding priorities (general)						X											
National communications follow-up							X										
CCA preparation activities (stage II)							X										
CCA disaster preparedness							X										
SCCF - Health							X										
SCCF - Disaster management							X										
LDCF - NAPAs								X									
SCCF - Adaptation overall (SCCF-A)									X								
SCCF - Technology transfer (SCCF-B)									X								
Response measure impacts										X							
Carbon Capture and Storage											X						
SCCF - Sectors (SCCF-C)												X					
SCCF - Diversification (SCCF-D)												X					
LULUCF												X					
Energy efficiency												X					
LDCF - LDC work program														X			
Biennial update report																	X
Technology Mechanism																	X
Green Climate Fund																	X
LDCF - NAPs																	X

3.3 Guidance-Strategy Mapping

In the following mapping of convention guidance to the LDCF/SCCF Strategy, only convention guidance is included that was issued before the LDCF/SCCF Strategies went into effect on 1 July 2010. The mapping includes all topics of convention guidance that are to be addressed by the GEF Strategies. Operational issues concerning the overall procedures of LDCF/SCCF (project cycle, co-financing, resource allocation etc.) as well as topics addressed by special LDCF/SCCF and/or applicable GEF policies (gender, private sector engagement etc.) are addressed through channels other than the LDCF/SCCF Strategies and are therefore not included in the Guidance-Strategy Mapping.

The Guidance-Strategy Mapping illustrates that the LDCF/SCCF Strategy largely reflects guidance of the UNFCCC on CCA. This finding confirms the results of the comprehensive review of the responsiveness of SCCF projects to convention guidance that was conducted by the GEF Evaluation Office in the context of the Evaluation of the Special Climate Change Fund presented to the LDCF/SCCF Council in November 2011. The SCCF Evaluation concluded that the four SCCF programming strategies as well as the SCCF adaptation and technology transfer projects are responsive to COP guidance.⁵

Figure 10: Guidance-Strategy Mapping for LDCF/SCCF Strategy on CCA

National Adaptation Programs of Action • Request to support preparation and implementation of national adaptation programmes of action • Request to ensure the speedy release and disbursement of funds and timely assistance for the preparation of NAPAs		LDCF/SCCF Strategy • LDCF was in its first phase fully focused on NAPA preparation and communication • NAPAs play a prominent role under CCA-1, see page 10-12 • NAPA priorities serve as a guideline for subsequent LDCF activities
Cumulative items of Guidance (COP 1-17)	3	LDCF/SCCF Strategy Strategy focuses on the CCA funding area under the SCCF • Strategy lists and refers to priority areas frequently; core component of CCA-1 • SCCF funding needs are oriented at the list of priority areas • Strategy provides additional information on SCCF priority area coverage
SCCF funding priorities overall • Establishment of the four areas for funding under the SCCF; definition of SCCF-A (“adaptation”) as “top priority for funding” • Definition of the priority areas for SCCF funding		LDCF/SCCF Strategy • Strategy explicitly addresses disaster preparedness and management as one of the priority areas (see above) • Disaster response measures are included in the CCA Results Framework (Indicator 1.2.1.8)
Cumulative items of Guidance (COP 1-17)	3	
Disaster Preparedness/Management • Request to support capacity development for preventive measures, planning, preparedness and management of disasters relating to climate change • Request to support national and regional centers and information networks for rapid response to extreme weather events		
Cumulative items of Guidance (COP 1-17)	7	

⁵ See GEF/LDCF.SCCF.11/ME/02.

Health			GEF-5 Focal Area Strategy on CHEM	
Request to support monitoring, control and prevention of diseases affected by climate change			- Strategy explicitly addresses disease control and prevention as one of the priority areas (see above) - Disease prevention is included in the CCA Results Framework (Indicator 1.2.1.1)	
Cumulative items of Guidance (COP 1-17)	2		GEF-5 Focal Area Strategy on CHEM	
Technology Transfer			GEF-5 Focal Area Strategy on CHEM	
Requests technology transfer activities, programmes and measures that are complementary to those currently funded by the Global Environment Facility			- CCA-3 is fully focused on technology transfer of adaptation technologies - LDCF/SCCF Strategy focuses specifically on CCA (i.e. SCCF funding area A), therefore CCM technology transfer (also to be funded by SCCF) is not included	
Cumulative items of Guidance (COP 1-17)	2		GEF-5 Focal Area Strategy on CHEM	
Sectors (SCCF Funding Window C)			GEF-5 Focal Area Strategy on CHEM	
Request to support activities in sectors specified in decision 7/CP.7, paragraph 2 (c) [SCCF-C]			- LDCF/SCCF Strategy focuses specifically on CCA (i.e. SCCF funding area A), therefore SCCF-C is not included - The separate programming document for SCCF-C is responsive to COP guidance (see SCCF Evaluation) - No funding has been made available by donors for SCCF-C activities	
Cumulative items of Guidance (COP 1-17)	5		GEF-5 Focal Area Strategy on CHEM	
Diversification (SCCF Funding Window D)			GEF-5 Focal Area Strategy on CHEM	
Request to support activities in sectors specified in decision 7/CP.7, paragraph 2 (d) [SCCF-D]			- LDCF/SCCF Strategy focuses specifically on CCA (i.e. SCCF funding area A), therefore SCCF-D is not included - The separate programming document for SCCF-D is responsive to COP guidance (see SCCF Evaluation) - No funding has been made available by donors for SCCF-D activities	
Cumulative items of Guidance (COP 1-17)	5			
Guidance issued after GEF-5 Strategy came into effect				
National Adaptation Plans			LDCF/SCCF Strategy	
Request support from the LDCF for the national adaptation plan (NAP) process for least developed countries			Guidance issued after LDCF/SCCF Strategy came into effect.	
Cumulative items of Guidance (COP 1-17)	3			

4. RESULTS OF REAL-TIME DELPHI PROCESS

4.1 Real-Time Delphi approach

The Delphi method was originally developed at the RAND Corporation in the late 1950's as a method for collecting and synthesizing expert judgments. The Delphi methodology has since become a widely recognized technique of expert consultation. The Delphi methodology requires anonymity of participants to ensure equal weight of each participant's responses and reduce the bias caused by perceived authority of renowned experts. The original Delphi process features repeated rounds of responses from experts on a questionnaire with each expert receiving feedback on her/his peers' responses between rounds. This time-intensive method was further developed into a "round-less", online-based process that allows for asynchronous input and makes expert answers available to the entire group in real time eliminating the need for round-to-round feedback. Thereby communication time is considerably shortened. This form of a Delphi process is called Real-Time Delphi (RTD).

Seven online questionnaires, one for each Focal Area Strategy and one for the LDCF/SCCF Strategy on CCA, were formulated by the Evaluation Team with extensive input from the Scientific and Technical Advisory Panel and embedded into a RTD online platform. Each question required a quantitative as well as qualitative response covering the central aspects of each strategy. The invitation to participate in the RTD process was distributed widely among environmental scientist using the international network of the International Council for Science and other scientific networks. Efforts to mobilize participants were implemented throughout the process.

RTD Questionnaire for Focal Area Strategy on Climate Change Adaptation

Question 1

Goal and objectives: To what extent do the objectives of the LDCF/SCCF Strategy adequately and sufficiently address the strategy's goal in a way that corresponds to current scientific understanding of how the goal can best be achieved? Does the set of objective leave significant gaps based on current scientific understanding? Include considerations on the extent to which the basic assumption that the poorest communities within developing countries will be the ones most adversely affected and least able to respond to the effects of climate change supported by the latest scientific understanding.

Question 2

CCA-1: Reducing vulnerability - Regarding the reduction of vulnerability to the adverse impacts of climate change, including variability, at local national, regional and global level [Objective 1], do the expected "outcomes and key targets" ☐ [see Results Framework, p.42-49] reflect what current scientific understanding suggests regarding appropriate measures towards the achievement of the objective? Include consideration on how the outcomes and target relate to the volatile and unpredictable funding levels under LDCF/SCCF. See especially the Funding Scenarios, p. 32-36.

Question 3

CCA2: Increase adaptive capacity - Regarding the increase of adaptive capacity to respond to the impacts of climate change, including variability, at local, national and global level [Objective 2], do the expected “outcomes and key targets” [see Results Framework, p.42-49] reflect what current scientific understanding suggests regarding appropriate measures towards the achievement of the objective? Include consideration on how the outcomes and target relate to the volatile and unpredictable funding levels under LDCF/SCCF. See especially the Funding Scenarios, p. 32-36.

Question 4

CCA3: Adaptation Technology Transfer - To what extent does current scientific understanding support the strategy’s focus on promoting transfer and adoption of adaptation technology [Objective 3] and the activities envisioned to achieve the objective? Do the expected “outcomes and key targets” [see Results Framework, p.42-49] reflect what current scientific understanding suggests as appropriate measures to achieve the objective? Include consideration on how the outcomes and target relate to the volatile and unpredictable funding levels under LDCF/SCCF. See especially the Funding Scenarios, p. 32-36.

Question 5

To what extent does current scientific understanding support the sectoral distribution (based on COP guidance) as presented on pages 52-55 of the strategy? (also see programming priorities, p. 21&p. 27)

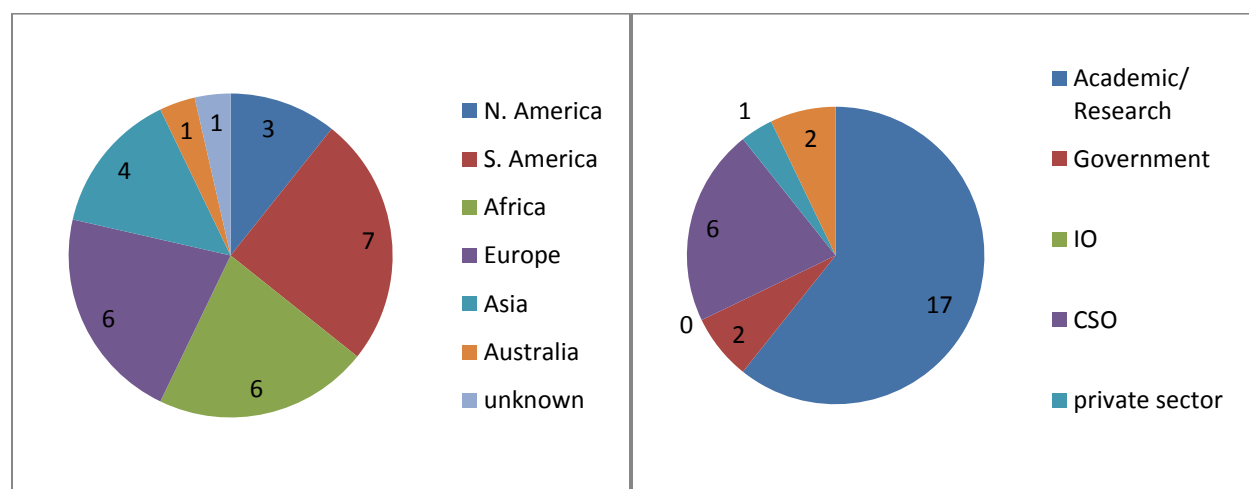
Question 6

To what extent is the GEF co-financed research on adaptation economics (see p.2) providing a scientifically-valid basis for support to the Strategy on Adaptation to Climate Change?

Question 7

What other issues not covered by the previous questions could be addressed by the Climate Change Adaptation Strategy for LDCF/SCCF to better reflect and utilize current scientific understanding?

Demographic information on participants in CCA RTD



4.2 Summary of quantitative results from RTD on Climate Change Adaptation

For interpreting the following quantitative responses of the RTD on Climate Change Adaptation, the relatively low number of respondents (28 overall participants) needs to be taken into account. Results therefore have to be interpreted with appropriate caution.

Rating scale: 1 to 10, where 1=not at all; 2=hardly; 3=slightly; 4=partly; 5=somewhat; 6=fairly; 7=considerably; 8=very; 9=highly; 10=fully (use “0” for “no answer”).

LDCF/SCCF Strategy – RTD quantitative responses				Participants: 36	
Question #	Mean	Min	Max	Median	Std. Dev.
#1 Overall goal and objectives	6.4	5	9	6	0.35
#2 Objective 1: “Reducing vulnerability”	6.45	4	8	7	0.413
#3 Objective 2: “Adaptive capacity”	5.3	2	9	5.5	0.8
#4 Objective 3: “Adaptation Technology Transfer”	5.8	2	8	6	0.525
#5 Sectorial distribution	5.75	3	8	5.5	0.605
#6 Research on adaptation economics	6.22	5	9	6	0.465

4.3 Summary of qualitative results from RTD on Climate Change Adaptation

Overall, the RTD responses of scientific experts affirmed that the LDCF/SCCF Strategy on CCA largely reflects the current state of scientific knowledge on adaptation and that the prioritizations and approaches envisioned by the LDCF/SCCF Strategy on the basis of UNFCCC COP guidance are sound from a scientific perspective. The experts highlighted the fact that scientific knowledge and understanding in the area of CCA is still in a phase of comparably fast development indicating the necessity for the LDCF/SCCF Strategy to pay close and continuous attention to scientific advances on CCA and adjust priorities and approaches accordingly.

Another aspect highlighted by the RTD experts is the challenge of uncertainty and incompleteness of currently existing information on climate risks and vulnerability. In this context, the importance of drawing information from a wide spectrum of different sources that includes traditional ecological knowledge of indigenous communities and existing local adaptive capacity was stressed by several experts.

Underlining the earlier results of the GEF Evaluation Office’s SCCF Evaluation, the scientific expert group reiterated the fact that based on current scientific knowledge on future CCA needs the resources available to realize the LDCF/SCCF Strategy are far below the funding levels that would be commensurate with the LDCF/SCCF mandate.

An additional issue mentioned for further exploration and potential inclusion in the LDCF/SCCF Strategy is the emerging CC adaptation challenge deriving from rapid urbanization and the consequent shifts in the urban-rural interface.