



PROJECT IDENTIFICATION FORM (PIF)¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: Multi-Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Climate technology transfer mechanisms and networks in Latin America and the Caribbean		
Country(ies):	Regional	GEF Project ID: ²	4880
GEF Agency(ies):	IADB (select) (select)	GEF Agency Project ID:	TBC
Other Executing Partner(s):	Economic Commission for Latin America and the Caribbean (ECLAC) Instituto Nacional de Ecologia, Mexico (INE) National governments, research institutions, private sector, non-governmental organizations	Submission Date:	2012-04-13
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>		Agency Fee (\$):	1,089,900

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCM-1 (select)	Technologies successfully demonstrated, deployed, and transferred	Innovative low-carbon technologies demonstrated and deployed on the ground	GEFTF	2,000,000	10,000,000
CCM-1 (select)	Enabling policy environment and mechanisms created for technology transfer Greenhouse gas (GHG) emissions avoided	National strategies for the deployment and commercialization of innovative low-carbon technologies adopted	GEFTF	2,000,000	4,625,000
CCM-2 (select)	Appropriate policy, legal and regulatory frameworks adopted and enforced	Energy efficiency policy and regulation in place	GEFTF	300,000	335,000
CCM-2 (select)	Sustainable financing and delivery mechanisms established and operational GHG emissions avoided (est. 275,000 tCO ₂)	Investment mobilized (est. USD 36 million) Energy savings achieved (est. 640 GWh)	GEFTF	700,000	12,000,000
CCM-3 (select)	Favorable policy and regulatory environment created for renewable energy investments	Renewable energy policy and regulation in place	GEFTF	650,000	2,455,000
CCM-3 (select)	Investment in renewable energy technologies increased GHG emissions avoided (est. 52,000 tCO ₂)	Renewable energy capacity installed (est. 3.4 MW) Electricity and heat produced from renewable sources (est. 120 GWh)	GEFTF	1,000,000	12,000,000

¹ It is very important to consult the PIF preparation guidelines when completing this template.

² Project ID number will be assigned by GEFSEC.

³ Refer to the reference attached on the [Focal Area Results Framework](#) when filling up the table in item A.

CCM-4 (select)	Sustainable transport and urban policy and regulatory frameworks adopted and implemented	Cities adopting low-carbon programs	GEFTF	300,000	2,000,000
CCM-4 (select)	Increased investment in less GHG intensive transport and urban systems GHG emissions avoided (est. 213,000 tCO ₂)	Investment mobilized (est. USD 24 million)	GEFTF	700,000	8,000,000
CCM-5 (select)	Good management practices in LULUCF adopted both within the forest land and in the wider landscape GHG emissions avoided and carbon sequestered (est. 200,000 tCO ₂)	Carbon stock monitoring systems established Forests and non-forest lands under good management practices	GEFTF	1,000,000	4,675,000
CCA-3 (select)	Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas	Relevant adaptation technology transferred to targeted groups	SCCF	900,000	4,000,000
CCA-3 (select)	Enhanced enabling environment to support adaptation related technology transfer	Skills increased for relevant individuals in transfer of adaptation technology	SCCF	830,000	2,000,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)	Others		(select)		
Sub-Total				10,380,000	62,090,000
Project Management Cost ⁴			GEFTF	432,500	1,000,000
			SCCF	86,500	300,000
Total Project Cost				10,899,000	63,390,000

B. PROJECT FRAMEWORK

Project Objective:						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Development of national policy and institutional capacities	TA	1.1. Development of national capacities to identify, prioritize and promote climate technologies 1.2. Integration of climate technologies in national and sub-national planning and policy-making	National and sectoral development policies, strategies and plans that include considerations on climate technologies developed and adopted Examples of South-South collaboration on climate change planning	GEFTF	1,000,000	4,225,000

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount.

		processes				
2. Strengthen technology networks and centers	TA	2.1. Thematic networks on the development and transfer of mitigation technologies created/strengthened	<p>Technical papers on technology transfer issues, including policy recommendations and technology assessments, overviews and road-maps</p> <p>Case studies showcasing best practices of South-South collaboration</p> <p>Thematic conferences and workshops, websites and newsletters</p> <p>Business plans for the continuous operation of thematic networks</p>	GEFTF	2,150,000	1,475,000
	TA	2.2. Thematic network on the development and transfer of adaptation technologies for agriculture created/strengthened	<p>Technical papers on technology transfer issues, including policy recommendations and technology assessments, overviews and road-maps</p> <p>Case studies showcasing best practices of South-South collaboration</p> <p>Thematic conferences and workshops, websites and newsletters</p> <p>Business plan for the continuous operation of thematic network</p>	SCCF	500,000	500,000
3. Pilot technology transfer mechanisms	TA	3.1. Enabling policies and mechanisms for the removal of barriers and the development and transfer of mitigation technologies	<p>Design of technology transfer mechanisms and policies for different sectors. Example of mechanisms and policies include technical standards and regulations, fiscal incentives, financial instruments, intellectual property rights and licensing schemes, etc.</p> <p>Case studies showcasing experiences with mitigation technology transfer mechanisms</p>	GEFTF	2,500,000	4,390,000
	TA	3.2. Enabling policies and mechanisms for the removal of barriers and the development and transfer of technology for adaptation in the	<p>Design of technology transfer mechanism and policies for the agriculture sector</p> <p>Case studies showcasing</p>	SCCF	400,000	500,000

		agriculture sector	experiences with adaptation technology transfer mechanisms				
4. Leverage private and public investments	Inv	4.1. Mobilization of private and public resources for the deployment of mitigation technologies 4.2. Deployment of mitigation technologies	Feasibility studies, project designs and bankable project proposals on climate technology development and transfer Investments in mitigation technologies by private and public entities, facilitated by technical assistance and/or technology transfer mechanisms	GEFTF	3,000,000	46,000,000	
	Inv	4.3. Mobilization of private and public resources for the deployment of adaptation technologies in the agriculture sector 4.4. Deployment of adaptation technologies in the agriculture sector	Feasibility studies, project designs and bankable project proposals on climate technology development and transfer for adaptation in the agriculture sector Investments in adaptation technologies for the agriculture sector by private and public entities, facilitated by technical assistance and/or technology transfer mechanisms	SCCF	830,000	5,000,000	
	(select)			(select)			
	(select)			(select)			
	(select)			(select)			
Sub-Total						10,380,000	62,090,000
				Project Management Cost ⁵	GEFTF	432,500	1,000,000
					SCCF	86,500	300,000
Total Project Costs						10,899,000	63,390,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	IADB (Science, Technology and Innovation)	Hard Loan	20,000,000
GEF Agency	IADB (Public and private sectors and Inter-American Investment Corporation)	Hard Loan	30,000,000
GEF Agency	IADB (Sustainable Energy and Climate Change Initiative and others)	Grant	8,000,000
Bilateral Aid Agency (ies)	Government of EU, Germany, Spain and others (ECLAC)	Grant	3,090,000
Other Multilateral Agency (ies)	ECLAC	In-kind	1,200,000

⁵ Same as footnote #3.

National Government	Government of Mexico (investments in climate change plans and policies by Mexican states)	In-kind	1,000,000
National Government	Instituto Nacional de Ecologia (Mexico)	In-kind	100,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Cofinancing			63,390,000

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)²	Total c=a+b
IADB	GEFTF	Climate Change	Latin America and the Caribbean	9,082,500	908,250	9,990,750
IADB	SCCF	Climate Change	Latin America and the Caribbean	1,816,500	181,650	1,998,150
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
Total Grant Resources				10,899,000	1,089,900	11,988,900

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

² Please indicate fees related to this project.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 the [GEF focal area/LDCF/SCCF](#) strategies:

The role of the development and transfer of environmentally sound technologies (EST) in achieving the objectives of the United Nations Framework Convention on Climate Change (UNFCCC) has been highlighted and given priority by the Conference of the Parties (COP), in particular through the adoption of the Poznan strategic programme on technology transfer (decision 2/CP.14) and the establishment of a Technology Mechanism as a pivotal element of the Cancun Agreements (decision 1/CP.16). In this context, GEF-5 climate change mitigation strategy highlights the role of EST, aiming at promoting the development and transfer of EST at various stages, focusing on market demonstration, deployment and diffusion. Likewise, technology transfer plays a key role under the overall objective of GEF adaptation strategy (2010 – 2014), which is twofold: reduce vulnerability to climate change and increase adaptive capacity.

The project on “Climate technology transfer mechanisms and networks in Latin America and the Caribbean” (hereinafter referred to as the “Project”) will pilot institutional frameworks and mechanisms for the development and transfer of EST in the energy (renewable energy and energy efficiency), transport and forestry sectors, leveraging investments from the public and private sectors. The project activities will contribute to the achievement of key targets under GEF-5 focal areas CCM-1, CCM-2, CCM-3, CCM-4 and CCM-5. The Project will also support the development and transfer of adaptation technologies in the agriculture and forestry sectors, thus contributing to the achievement of key targets under GEF objective CCA-3. The resources requested from GEF for adaptation correspond to SCCF-B and will be used to facilitate and promote the development and transfer of technology for adaptation in the agriculture and forestry sectors.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

The Project will contribute to the achievement of targets under objective CCA-3 of the GEF’s strategy on adaptation for SCCF and LDCF. In particular, the project activities will promote the deployment and transfer of technologies to address the region’s needs regarding adaptation in the agriculture and forestry sectors, while exploring approaches to address simultaneously both mitigation and adaptation objectives in these sectors. The Project will focus on the role of biotechnology and the adoption of new suitable traits and varieties, following a strategy that will aim at advancing the regional research capabilities by means of promoting the collaboration among key institutions, improving the knowledge base, and strengthening institutional frameworks (incl. national and sectoral policies and planning processes). The Project’s interventions will aim at creating an enabling environment for the development and transfer EST for adaptation and mitigation in key agricultural markets in Latin America and the Caribbean (LAC) (e.g. maize, soy bean, rice, etc.).

A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

Technology needs assessments (TNAs) developed by countries in LAC identify potential sectors where technology transfer could play a much stronger role. Sectors frequently highlighted in TNAs include renewable energy (e.g. solar, wind, biomass and geothermal power), energy efficiency in buildings and industrial processes, transport, forestry, agro-forestry and agriculture (e.g. TNAs prepared by Chile, Bolivia, Colombia, Ecuador and Peru, among other countries).

Several countries in LAC have adopted national climate change policies and plans (e.g. Brazil, Chile, Colombia, Mexico, etc.) that lay down the priorities and institutional arrangements for national action on climate change. In addition, in response to agreements made under UNFCCC, countries in the region are working actively in the preparation of nationally appropriate mitigation actions (NAMAs).

In this context, countries in LAC are already evaluating a wide set of mitigation opportunities, identifying barriers to their implementation and assessing the required financial and technological inputs.

The Project will prioritize sectors and specific technologies identified by countries in LAC in their TNAs, NAMAs and national communications to UNFCCC, promoting regional collaboration, and facilitating the dissemination of successful experiences and best practices. The Project will provide a much needed regional perspective on the assessment of technology development and transfer needs and experiences in LAC, thus giving coherence to various actions at the national level and opening opportunities for coordinated, cost-efficient actions at the regional level.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Regional context

Countries in LAC contribute with 12% of global greenhouse gas (GHG) emissions. LAC's GHG emissions profile is characterized by comparatively larger shares attributed to the land use, land-use change and forestry (LULUCF, approx. 47%) and the agriculture (approx. 20%) sectors (WRI-CAIT). The large relative contributions from these two sectors are a consequence of significant emissions from deforestation and forest degradation, as well as the comparative importance of the agriculture sector in the region's economies. While there are country-specific exceptions, the overall share on GHG emissions from the energy sector in LAC is significantly smaller than the world's average due to, inter alia, the comparatively large participation of renewable energy (i.e. hydropower, biomass, etc.) in the region's energy matrix. Sustaining and increasing the share of renewable energy sources in the region will be a challenge, as countries strive for energy security in a global context of rising energy prices, and increasing climate change vulnerability of energy systems that are heavily dependent on hydropower. GHG emissions from the transport sector in LAC are growing at a fast rate, having reached approximately 30% of the overall GHG emissions from the energy sector, driven by high rates of urbanization, rapid motorization, inadequate mass transit options, and inefficient freight and logistics sectors.

On the other hand, LAC's specific geographic, natural and socioeconomic context makes the region particularly vulnerable to climate change. Significant impacts from climate change are expected in LAC, in particular on water resources, coastal zones, biodiversity, health and agriculture. Limited financial, technical and human resources available in LAC are an important constrain to improving the region's capacity to adapt. The poor in LAC are particularly vulnerable to impacts from climate change, threatening to undermine the progress made towards meeting the Millennium Development Goals (MDGs). The expected effects from climate change may affect substantially the productivity and sustainability of the agriculture sector, threatening the livelihoods of rural communities and their surrounding ecosystems, and limiting the region's long term economic growth and well-being.

The region's capacities and environment for the development and transfer of EST will play a pivotal role shaping the region's response to climate change. Without adequate capacities in the public and private sectors to develop, assess, finance and deploy appropriate technologies, the region risks diverting its scarce resources into inadequate investments, resulting in a technology "lock in" in key sectors such as energy, transport, forestry and agriculture, where investments are long staying. The region's ability to create markets for EST will depend on, inter alia, the appropriateness of enabling policies and regulations (incl. standards and intellectual property frameworks), the access to capital, incentives and financing and risk management mechanisms; and the availability of information and qualified human resources.

Countries in LAC have demonstrated leadership in advancing the global climate change agenda, including also on issues related to the development and transfer of EST. Nevertheless, the region's

actions on the later topic have been mostly efforts by individual governments, private companies, research institutions or non-governmental organizations that have not necessarily promoted collaboration at a regional scale. Given the specific economic, social and institutional context in LAC, regional collaboration will be decisive to induce the transformations required to address climate change in the region. In particular, it would create economies of scale and broaden the markets for EST, harmonize approaches to policies, regulations and standards; coordinate the mobilization of limited resources, and shorten the learning curve.

International context

At its sixteenth session in Cancun, the COP decided on the establishment of a Technology Mechanism, with a view to supporting actions regarding the development and transfer of EST for climate change mitigation and adaptation. The Technology Mechanism includes a Technology Executive Committee (TEC) and a Climate Technology Centre and Network (CTCN). The COP decided on specific priority areas to be considered including, among other, (i) the development of endogenous capacities in developing countries, (incl. “cooperative research, development and demonstration programmes”); (ii) deployment of EST and know-how; (iii) “[s]trengthening of national systems of innovation and technology innovation centres”; and, (iv) adoption of technology plans for mitigation and adaptation (decision 1/CP.16, para. 120).

The Climate Technology Centre will have among its functions (i) to support Parties in the identification, assessment and deployment of EST by means of providing information, building national capacities, and facilitating prompt action; (ii) to facilitate the development and transfer of EST by means of promoting collaboration among academia, research institutions and the private and public sectors; and, (iii) to promote a network of international technology centers, networks and institutions, with a view to promoting partnerships and collaboration (incl. cooperative research and development), and disseminating experiences and best practices (decision 1/CP.16, para. 123).

The modalities and procedures for the TEC were adopted by COP at its seventeenth session in Durban. The modalities highlight the strategic role of TEC regarding policy advice on technology development and transfer, requesting TEC to prepare technology road-maps and assessments, and to elaborate regular overviews of initiatives on technology development and transfer. In order to fulfill its mandate, TEC should engage with stakeholders at the international, regional and national levels.

On January 2012, the UNFCCC secretariat issued a call for proposals for hosting the Climate Technology Centre that, together with a network of organizations, will constitute the CTCN as agreed by COP 16 in Cancun. The call underscores the role of the network of organizations that will be part of the CTCN (incl. climate and/or technology centers, intergovernmental, non-governmental, international, regional and sectoral organizations; research, academic and financial institutions; and public and private entities), clarifying that these organizations will provide substantive input to the work of CTCN in response to requests from developing countries.

Baseline project

In order to meet its broad thematic and geographic scope, the Project will be supported by a number of starting and on-going initiatives by the IADB, ECLAC, project partners and participating countries in LAC. With the purpose of making the most efficient use of the GEF contribution and the limited resources available in LAC, the Project will seek to strengthen existing activities on EST in LAC and aim at the consolidation of long-term collaborative initiatives that are aligned with the objectives and modalities of the Technology Mechanism under UNFCCC. While the details on specific contributions by project partners and others will be elaborated during the project preparation phase, the following are tentative elements of the

baseline project and the contributions by project partners:

Inter-American Development Bank

The IADB will support the Project with grants and non-grant resources. Grant resources will come primarily from technical cooperation (TC) projects financed by the Sustainable Energy and Climate Change Initiative (SECCI). SECCI TC projects have been approved to support, inter alia, (i) climate change planning by environment and finance authorities in LAC; (ii) EST assessments (e.g. concentrated solar power, wind energy, advanced-vehicle technologies, non-motorized transport, etc.); and, (iii) thematic EST transfer networks (e.g. solar energy, geothermal power, bio digesters, etc.).

Non-grant resources from the IADB will be leveraged to support the development of markets for EST and to mobilize private and public investments. The development of markets for EST will be supported by means of, inter alia, IADB's portfolio of loans and grants to promote innovation and technology development in several countries in LAC (e.g. Argentina, Colombia, Panama, Peru, etc.). These operations provide resources for research, development and deployment (RD&D) to private entities through a competitive process. While RD&D on EST is eligible under these operations, their full potential has not been tapped due to lack of awareness, scarce expertise to prepare competitive project proposals and insufficient integration with national climate change plans and strategies.

Investments in EST will be mobilized by the IADB through various modalities (sovereign and non-sovereign guaranteed loans, grants, guarantees and equity investments). One of the five sector priorities under IADB's fifth General Capital Increase (GCI-9) is environmental protection, sustainable energy, climate change and food security. Under GCI-9, the IADB has committed to increasing the share of operations contributing to this sector priority. In this context, the Bank carries a substantive and expanding portfolio of operations supporting the deployment of EST in LAC. The Inter-American Investment Corporation (IIC) complements IADB's role mobilizing investments in EST, in particular in the segment serving small and medium enterprises (SMEs). IIC has created financial products to support the deployment of EST in LAC including, for example, a USD 50 million loan facility established in collaboration with the Nordic Investment Bank to invest in projects on renewable energy and energy efficiency.

Economic Commission for Latin America and the Caribbean

ECLAC, headquartered in Santiago (Chile), is one of the five regional commissions of the United Nations (U.N.). Its purpose is to contribute to the development in LAC, coordinating actions directed towards this end, and reinforcing economic ties among countries and with other nations of the world.

ECLAC will support the project with technical and managerial resources. On the one hand, ECLAC works in all the sectors involved in the project and with their relevant actors, especially in the public sector. On the other hand, ECLAC manages an important number of projects from different donors, most of them involving coordination of different sectors, countries and institutions. ECLAC works closely with different networks related to climate change such as the RIOCC (Iberamerican Offices of Climate Change Network), groups of UNFCCC REDD regional negotiators, academic institutions (such as the network of Universities in LAC), and NGOs involved in climate change issues.

Together with the IADB, ECLAC is carrying out economic studies on the economic impact of climate change in most countries of the region, and on fiscal policies for mitigation, which have a strong bearing on the adoption of EST. These latter line of work combines resources of various donors (Spain, Germany, European Union and the U.N. itself) and could be developed in synergy with the technological barrier removal approach of the project. These studies identify the mitigation potentials of fiscal instruments in each of the relevant sectors of the countries, barriers

for adopting EST and the assessment of economic instruments' potential to reduce GHG emissions.

Instituto Nacional de Ecologia, Mexico

Mexico is a global leader on climate change action, as demonstrated at COP 16 when the country's presidency of the COP proved decisive in delivering the Cancun Agreements. Mexico hosts a number of initiatives on climate change mitigation and adaptation that are at the forefront of climate change action by developing countries, including mitigation measures in the energy, transport and forestry sectors under different mechanisms (e.g. proposals on NAMAs, REDD and carbon finance); and adaptation initiatives in different contexts, including collaborative efforts on adaptation in agriculture. INE is a key stakeholder in Mexico's efforts on climate change and will facilitate linking relevant institutions, knowledge, technical and financial resources to the Project's activities.

The Government of Mexico has approved USD 4 million to be invested in the preparation of climate change plans by Mexican states. INE is supporting municipal and state authorities in Mexico preparing climate change policies and plans. In this role, INE has developed expertise and methodological tools to develop the institutional capacities of government authorities to identify and assess mitigation and adaptation needs and opportunities and to formulate specific policies and actions to address them. INE's courses and guidelines on climate change planning have been adopted extensively in Mexico and have also been used as a reference by other countries in LAC. This body of knowledge will serve as the basis for developing institutional capacities and tools in LAC to address issues on EST in the context of national, sub-national and sectoral climate change plans.

- B. 2. [incremental /Additional cost reasoning](#): describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated [global environmental benefits](#) (GEF Trust Fund/NPIF) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The objective of the Project is to promote the development and transfer of EST in LAC, in order to contribute to the ultimate goal of reducing GHG emissions and reducing the vulnerability to climate change in specific sectors in LAC. The Project's strategy is to build the national capacities to identify, assess, develop and transfer EST, focusing on (i) the promotion of and support to regional collaborative efforts; (ii) the support to planning and policy-making processes at national and sectoral levels; (iii) the demonstration of policies and enabling mechanisms; and, (iv) the mobilization of private and public financial and human resources.

The Project will pilot institutional frameworks and mechanisms for the development and transfer of EST for climate change mitigation and adaptation, taking into consideration and contributing directly to key design features of the Technology Mechanism as agreed under UNFCCC.

In order to maximize the Project's global and local environmental benefits, the Project's activities will focus on sectors that are a priority for climate change mitigation and adaptation in LAC, i.e. renewable energy, energy efficiency, transport, forestry and agriculture. The scope within each of these sectors will be narrowed down during the project preparation phase, in order to prioritize specific initiatives according to criteria including cost-effectiveness, replicability, and national circumstances, capabilities and priorities. The Project will include specific criteria to promote a broad and diverse participation by countries in LAC, including also small island developing states in the Caribbean that would benefit from the Project activities on both mitigation and adaptation.

The Project will focus on the development of national capacities to (i) elaborate plans and policies to facilitate the development and transfer of EST, and (ii) identify, select, finance and adopt EST. While the former objective will emphasize the role of public institutions and deliver

specific results regarding policies and plans for the development of EST, the later will seek to engage the private sector and other technology users in the policy-making process, with a view also to piloting investments in specific EST. This approach aims at adequately identifying and addressing the barriers to the adoption of EST at all relevant levels (e.g. regulatory, financial, technical, awareness, etc.). The participation by technology users (represented by, inter alia, business associations, chamber of commerce, leading businesses, consumers associations, etc.) will be fundamental to ensure that their views and priorities are addressed, and that the mechanisms and interventions promoted by the Project can lead effectively to the adoption and diffusion of EST.

The GEF contribution will facilitate the regional dialogue, coordination and sharing of experiences among countries in LAC, contributing to the achievement of the benefits derived from regional collaboration on EST. The contribution from SCCF-B will be used to facilitate and promote the development and transfer of technology for adaptation in the agriculture and forestry sectors.

Project components

Component 1. Development of national policy and institutional capacities

This component will aim at developing institutional capacities and analytical tools to address issues on EST in the context of national and sectoral policies and plans. The activities under this component will focus on assisting selected governments and business groups (i) identify EST needs, (ii) recognize and assess barriers preventing EST transfer, (iii) conceptualize mechanisms and strategies to overcome such barriers, (iv) integrate considerations on EST needs and transfer in development and sectoral plans, and (v) develop and adopt policies that include considerations on the promotion of EST development and transfer.

The baseline activities supporting this component (IADB, ECLAC, INE) deliver public-policy products, led by Ministries of Finance and/or Environment or sub-national governments, that incorporate climate change considerations into national, regional and/or sectoral development plans and policies. Such exercises commonly fail short of undertaking a comprehensive assessment of the barriers, costs and opportunities associated to the EST required to implement the identified measures. The GEF contribution will support the development of methodologies and the regional harmonization of approaches for the inclusion of consideration on EST in climate change planning and policy-making exercises. This component will, in particular, promote a regional dialogue on best-practices for the identification and assessment of EST and for the development of policies and mechanisms for the development and transfer of EST.

This component will emphasize the development of capacities of private and public institutions with relevant roles regarding sectoral planning and policy-making (e.g. Ministries, business associations, non-governmental organizations). By the end of the Project, as a result from the GEF contribution, the technical capacity and resources (e.g. methodologies, case studies and other knowledge products) available to key stakeholders and policy-makers in LAC for the identification and assessment of EST, and for the design and implementation of enabling mechanisms (incl. policies) for the development and transfer of EST will have increased significantly. These capacities and resources will support the execution of components two and three of the Project and will remain after the Project closure, supporting the replication of the proposed approaches in additional technological, sectoral and/or geographical contexts. These results from the GEF intervention will improve the capacity of the region to contribute to and benefit from the implementation of the Technology Mechanism under UNFCCC.

Component 2. Strengthen technology networks and centers

The activities under this component will support the creation and strengthening of regional EST networks focusing on selected topics (e.g. solar power, low-carbon transport, sustainable forest management, climate resilient agriculture, etc.). Each thematic network will be led by an institution with regional expertise and credentials in the network's topics. The institutions leading thematic networks will be selected during the project preparation phase, and may include public or private entities, or non-governmental organizations. EST networks will promote collaboration among academia, entities from the public and private sectors, non-governmental organizations and other civil society organizations, with a view to foster innovation, promote the adoption of strategic EST and mobilize human and financial resources. The networks will support countries in LAC addressing issues regarding EST development and transfer, including the preparation of policy recommendations and technology assessments, overviews and road-maps; the elaboration of proposals for project funding, and other relevant technical assistance and training. Each EST network supported by the Project will prepare and implement a plan to ensure its financial sustainability beyond the Project's lifetime.

The IADB and ECLAC are supporting initiatives to facilitate networks of practitioners on a limited number of climate change related topics (e.g. solar power, geothermal power, forestry, carbon finance). While these initiatives would be implemented also in the absence of the GEF intervention, their scope would remain limited. The GEF contribution will (i) support thematic networks on topics not yet covered by IADB and ECLAC led initiatives (e.g. transport, agriculture); (ii) expand the scope of participation and activities of existing networks (incl. activities on knowledge dissemination); (iii) strengthen the role and technical capacities of participating national and regional centers of excellence; (iv) support the collaboration and exchange of experiences across thematic networks, documenting and distilling best-practices and approaches for the operation of thematic networks, with a view also to informing future efforts to establish and operate networks on additional topics.

Component 3. Pilot technology transfer mechanisms

This component will promote the creation of enabling environments for the transfer of selected EST, supporting the design and piloting of concrete examples of technology transfer mechanisms and policies including regulations, standards, intellectual property rights and licensing schemes, fiscal incentives, financial mechanisms, joint research and development, and strengthening of national systems of innovation. Participating technology network's members will champion the demonstration of specific technology transfer mechanisms and policies, aiming at the removal of specific barriers to the adoption of a given EST. The mechanisms and policies piloted under this component will prepare the ground and trigger the investments by the private and public sector to deploy strategic EST.

The baseline activities by IADB and ECLAC, which would have been implemented also in the absence of the contribution by GEF, address specific barriers to concrete technologies in a given geographic context (e.g. technical and awareness barriers to advanced-vehicle technologies in Colombia, technical and regulatory barriers to concentrated solar power in Chile). These activities illustrate the type of interventions that are required for removing barriers to the adoption of EST and provide a solid starting point for the proposed GEF intervention. With GEF resources, the Project partners and beneficiaries will be able to scale-up, follow-through, document and disseminate efforts to remove barriers to the development and transfer of EST in a larger number of institutional, geographic and sectoral contexts. The GEF supported actions to adopt mechanisms and policies are expected to improve the knowledge base and capacities available in LAC, encouraging and facilitating the replication of these actions through various means, including the Technology Mechanism under UNFCCC, GEF, the Adaption Fund, NAMAs, etc.

Component 4. Leverage private and public investments

The activities under components one to three will facilitate pilot investments by private and public entities in strategic EST under component four. Pilot investments on EST by private and public entities, enabled by the technology networks and the technology transfer mechanisms supported by the Project, will result in direct GHG emissions and/or reduced vulnerability and, more importantly, they will pave the way for a larger scale deployment of strategic EST in LAC and elsewhere.

The IADB is already a significant source of financing for investments in renewable energy, energy efficiency, transport, forestry and agriculture in LAC. Under GCI-9, the IADB has committed to expand its support to member countries' initiatives regarding climate change, sustainable energy and environmental sustainability. In this context, it is expected that some EST investments be included as part of the baseline activities. Likewise, the GEF contribution will have a fundamental role in enabling new and additional investment in EST by the IADB and other financial institutions, therefore accelerating the shift towards portfolios with an increasing prevalence of low-carbon, climate resilient investments. Specifically, the GEF intervention will support new and additional investments in EST (both in mitigation and adaptation) by means of (i) supporting the inclusion of EST investments in IADB country programming exercises, (ii) removing barriers and creating enabling environments for EST markets in member countries, and (iii) providing direct support to the assessment of EST and to the preparation of bankable EST projects. Clearly, the extent to which the GEF intervention contributes to a given investment will vary from project to project, therefore the Project will develop simple and transparent criteria to assess the degree to which GHG emissions reductions from an investment on EST are attributable directly or indirectly to the GEF intervention.

Implementation arrangements

ECLAC will be the Executing Agency for the Project and will be responsible for its overall coordination, administration and monitoring. A Project Management Unit (PMU) financed with Project resources will be set up by ECLAC in Santiago and will have the responsibilities for the day-to-day tasks regarding Project execution and monitoring, including the procurement of goods and services. A full-time ECLAC staff and a project assistant will coordinate and supervise the execution of the Project, including overseeing the functioning of PMU. In addition, technical support and advice will be provided by ECLAC staff from the Sustainable Development and Human Settlements Division, the Natural Resources and Infrastructure Division, the Economic Development Division and the Agriculture Unit.

Institutions leading thematic networks will be responsible for executing the activities related to the conformation/strengthening and operation of their respective networks. These include carrying out promotional activities, managing memberships, organizing events and dissemination activities, and coordinating and monitoring the delivery of technical outputs entrusted to their respective networks in the context of the Project. In addition, leading institutions will facilitate the sharing of information and experiences across themes, with a view to distilling lessons and best practices regarding the set-up and operation of networks as vehicles for regional collaboration on EST development and transfer. INE will lead the execution of component one on the development of national policy and institutional capacities. INE is the coordinator of the Climate Program in Mexico and has extensive experience leading and guiding climate change planning processes at the national and sub-national levels. IADB will work closely with ECLAC, INE and partner institutions in the identification and preparation of the investment components of the Project, supporting the origination of requests by member countries and addressing these requests with the support from Project partners. A Steering Committee (SC) will provide strategic guidance and overall oversight to execution of the Project. The IADB, ECLAC, INE and other project partners will be members of the SC and will meet at least annually to review and discuss the Project progress, agree on annual work-plans

and priorities, and decide on matters of strategic relevance. PMU, INE and institutions leading thematic networks will work closely to coordinate and monitor Project activities and the delivery of outputs. ECLAC, as part of its supervisory and coordination role, will consolidate inputs and progress reports from Projects partners implementing specific activities or components under the Project, including those under the responsibility of institutions leading thematic networks, INE and IADB. Details on the management arrangements and commitments by project partners (incl. co-financing for project management activities) will be elaborated during the preparation of the complete project proposal.

Global environmental benefits

The emphasis of the Project is on regional institutional development and capacity building for EST development and transfer, therefore most of the benefits related to GHG emissions and adaptation are expected to occur as indirect impacts. Still, the Project will pilot examples of technology transfer mechanisms and mobilize investments in selected EST in order to demonstrate specific concepts, gather practical experiences and promote regional action on EST development and transfer. Pilot investments that benefit directly from technical assistance, financial mechanisms or other direct support activities financed with GEF resources will contribute towards the Project's direct emissions reductions and will contribute to reducing the vulnerability to climate change in the agriculture and forestry sectors in LAC. In addition, the market transformation effects from the Project activities will benefit indirectly investments on EST that may not be considered part of the Project itself, but will contribute towards the Project's indirect emissions reductions and adaptation benefits. Simple and transparent criteria to assess the degree to which global environmental benefits from an investment on EST are attributable directly or indirectly to the GEF intervention will be proposed during the project preparation phase and adopted as part of the Project monitoring and evaluation plan.

An accurate estimation of benefits on GHG emissions and adaptation will only be feasible at a later stage, when information on the pilot investments and their corresponding baselines is available. At this stage the following estimates are available:

Assumptions		
IADB investments		USD 40 million
Leverage ratio		1:3
Total investments mobilized		USD 120 million
Allocation:		
Energy efficiency	(30%)	USD 36 million
Renewable energy	(30%)	USD 36 million
Transport	(20%)	USD 24 million
Forestry	(10%)	USD 12 million
Agriculture	(10%)	USD 12 million
Ratio of direct to indirect emissions reductions		1:2

Energy efficiency

Emission reductions	
Average abatement cost [†]	0.150 USD/kWh/y
Annual energy savings	240,000 MWh/y
Emission factor [‡]	0.430 tCO ₂ /MWh
Annual emission reductions	103,000 tCO ₂ /y
Average lifetime	8 years
Emission reductions	824,000 tCO ₂
Direct emission reductions	275,000 tCO ₂
Indirect emission reductions	549,000 tCO ₂
Replication factor	3
Indirect emission reductions (post-project)	824,000 tCO ₂
Total emission reductions	1,648,000 tCO₂

[†] Average investment per kWh saved per year in developing countries, based on the concept of energy productivity, as presented in “*The Case for Investing in Energy Productivity*”, McKinsey Global Institute, 2008.

[‡] Generation-weighted average of grid CO₂ emission factors reported for clean development mechanism project activities in 19 countries in LAC.

Renewable energy

Emission reductions	
Average investment cost [†]	3,500 USD/kW
Installed capacity	10.3 MW
Load factor [‡]	0.2
Annual power generation	18,000 MWh/y
Emission factor [*]	0.430 tCO ₂ /MWh
Annual emission reductions	7,800 tCO ₂ /y
Average lifetime	20 years
Emission reductions	156,000 tCO ₂
Direct emission reductions	52,000 tCO ₂
Indirect emission reductions	104,000 tCO ₂
Replication factor	3
Indirect emission reductions (post-project)	156,000 tCO ₂
Total emission reductions	312,000 tCO₂

[†] Average investment per kW estimated on the basis of costs reported in “*Projected Costs of Generating Electricity*”. International Energy Agency, 2010.

[‡] Load factors for renewable energy are technology and site specific. A conservative estimate for a range of renewable energy sources is used here.

^{*} Generation-weighted average of grid CO₂ emission factors reported for clean development mechanism project activities in 19 countries in LAC.

Transport

Emission reductions	
Average abatement cost [†]	137 USD/bbl/y
Annual fuel savings	175,000 bbl/y
Emission factor [‡]	0.365 tCO ₂ /bbl
Annual emission reductions	64,000 tCO ₂ /y
Average lifetime	10 years
Emission reductions	640,000 tCO ₂
Direct emission reductions	213,000 tCO ₂
Indirect emission reductions	427,000 tCO ₂
Replication factor	3
Indirect emission reductions (post-project)	640,000 tCO ₂
Total emission reductions	1,280,000 tCO₂

[†] Average investment per barrel of oil (bbl) saved per year in developing countries, based on McKinsey Global Institute, 2008. Estimates are for energy efficient vehicle technologies.

[‡] Estimated value for gasoline.

Forestry

Emission reductions	
Average abatement cost	20 USD/tCO ₂ eq
Emission reductions/removals	600,000/ tCO ₂ eq
Direct emission reductions	200,000/ tCO ₂ eq
Indirect emission reductions	400,000/ tCO ₂ eq
Replication factor	3
Indirect emission reductions (post-project)	600,000 tCO ₂
Total emission reductions	1,200,000 tCO₂

Direct emission reductions from pilot investments in all sectors are estimated at 740,000 tonnes CO₂-eq. Indirect emissions reduction from investments benefiting indirectly from the Project activities are estimated at 1.48 million tonnes CO₂-eq. Assuming a conservative replication factor of three, the indirect emission reductions from investment taking place during the influence period of the Project are 2.22 million tonnes CO₂-eq. Total emission reductions are therefore estimated at 4.44 million tonnes CO₂-eq. As a result, the cost for the GEF contribution (USD 11.05 million) per ton reduced/removed is 2.49 USD/tCO₂-eq. Estimates on GHG emissions reductions will be improved during the preparation of the complete project proposal and results will be monitored and reported during the execution of the Project.

- B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read [Mainstreaming Gender at the GEF.](#)":

The Project will strengthen the region's endogenous capacities to innovate, develop and adopt new technologies, thus improving the competitiveness of local businesses and national economies. Overall, the development and transfer of EST will build technical capacities within the region and contribute to the creation of high-value jobs. The adoption of EST in the energy and transport sectors will increase energy security and improve local air quality, benefiting in particular the urban poor, who are particularly affected by fuel-price volatility and low air quality. The deployment of EST in the forestry and agriculture sectors will bring benefits in terms of food security and biodiversity conservation. The project will include, as appropriate, gender considerations and ensure that the development and transfer of specific EST takes into account also the specific situation of women and children, who are often among the groups most affected by climate change, poor air-quality, and fuel- and food price volatility.

- B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

The description of relevant risks is summarized in the table below:

Risk	Risk probability and impact	Response strategy
Slow progress in the implementation of the Technology Mechanism under UNFCCC and/or challenges to an efficient coordination with it.	Probability: medium Impact: low	The Project will mitigate the risk by means of an active involvement of the partners in the international process implementing the Technology Mechanism under UNFCCC. If necessary, the Project may also seek to avoid the risk pursuing specific activities that could deliver positive results in terms of the development and transfer of EST even in the context of a challenged implementation of the Technology Mechanism.
Poor coordination among Project partners.	Probability: medium Impact: high	The Project will adopt explicit measures to mitigate this risk. The Project Manager at PMU will have as one her primary responsibilities ensuring a proper coordination among Project partners. Formal and informal communication and reporting functions by Project partners will be adopted to facilitate the coordination of inputs and activities. Sufficient resources will be allocated to monitoring activities
Insufficient interest/support by national governments.	Probability: low Impact: high	National governments will be invited to participate in the Project design and implementation at the earliest stage possible. Component one has been designed with a view also to ensure a strong participation and buy-in from national governments.
Lack of interest by the private sector.	Probability: low Impact: high	The Project will include specific activities to promote the participation by the private sector (e.g. pilot projects, conferences, dissemination of information). The Project priorities will be set taking into consideration, among others, areas of interest expressed by the private sector.
EST are inadequate to the needs and practices of local technology users	Probability: medium Impact: high	The Project will engage with and promote the active participation of technology users (private and public sectors, consumer organizations, local communities, farmers, etc.) at an early stage, defining the Project outputs and activities in accordance with the specific needs and contexts of local users. Such approach should avoid the risk of engaging in the promotion of EST that are inadequately adapted to the users' needs and practices.
Political and/or economic instability	Probability: low Impact: medium	The Project design should be flexible and pursue objectives in a diverse set of economic sectors and countries.
Lack of qualified experts to support the Project activities.	Probability: medium Impact: medium	The Project will promote the collaboration with a broad base of expert organizations in the region and abroad, mapping and linking to thematic networks the existing supply of technical expertise in the region.

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

One of the main strategies of the Project will be to promote and facilitate collaboration among public and private institutions, including ministries, planning authorities, research institutions, academia, financial institutions, chambers of commerce, business associations, non-governmental organizations and other civil society organizations. This strategy will be implemented primarily through the technology networks and centers that will play the role of facilitators, bringing together the different stakeholders required to advance the specific topics relevant to each thematic network. As such, the Project is expected to build a broad stakeholders' base, and get stakeholders involved and participating in advancing policies and regulations, and mobilizing human and financial resources to promote and deploy EST. Project activities pursuing the adoption of policies and plans for the development and transfer of EST will implement the necessary participation mechanisms to ensure that the inputs and views from all relevant stakeholders, including private sector, civil society organizations and academia, are adequately addressed. The Project will invite the participation of local and indigenous communities whenever a Project activity could potentially affect them positively or negatively.

The Project will be aligned with design elements of the Technology Mechanism as agreed under UNFCCC, thus making the collaboration with TEC, CTCN and the UNFCCC secretariat an important component of the Project's collaborative effort. International organizations and donor agencies will play an important role as well, contributing with advice, experiences, and participating in specific project activities, as applicable.

B.6. Outline the coordination with other related initiatives:

The Project will coordinate closely with similar regional initiatives on technology transfer supported by GEF and other Multilateral Development Banks (e.g. Asian Development Bank, African Development Bank). In addition, the Project will work closely with U.N. organizations (e.g. UNDP, UNEP, FAO, etc.) and the World Bank who are also actively involved in supporting countries in LAC in the transition to low-carbon climate resilient economies. The Project will collaborate with the International Energy Agency (IEA) and the Latin-American Energy Organization (OLADE) regarding best practices for EST assessment, development and deployment.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

The IADB is an important partner of countries in LAC addressing the challenges of climate change. The Bank is major source of financial and technical expertise to support the development of infrastructure and policy reforms in the sectors relevant to the Project (energy, transport, forestry and agriculture). The Bank has extensive experience supporting member countries in LAC developing climate change policies, adopting national planning practices that incorporate the climate change dimension, and creating markets for new technologies.

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

The IADB will support the implementation of the Project with TC projects on (i) climate change planning (approx. USD 2 million); (ii) technology assessments (approx. USD 5 million); and, (iii) EST transfer networks (approx. 1 million). Grant and non-grant financing will be available, on-demand and in accordance with the procedures of the IADB and beneficiaries, to support RD&D activities in eligible countries (approx. USD 10 million) and for investments in EST by private and public entities in LAC (approx. USD 40 million).

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

The Project is consistent with the objectives of the "IADB Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy". The integrated strategy guides the Bank's efforts to scale-up support for climate change mitigation and adaptation activities in LAC. The integrated strategy calls for enhanced support along five priority intervention lines: (i) strengthening the Bank's knowledge base; (ii) strengthening institutions and private and public sector capacities; (iii) developing instruments to mainstream climate change mitigation and increase resilience in Bank-funded operations; (iv) expanding lending and technical assistance in key sectors; and, (v) scaling-up investments, addressing financial gaps and leveraging private sector investments.


IADB's "Climate Change Strategy Action Plan", adopted in February 2012, sets priorities and specific actions for implementing the Bank's strategy on climate change over the period 2012 – 2015. The action plan identifies adaptation as the first order priority for IADB's engagement on climate change in LAC, committing to achieve measurable reductions in vulnerability to climate change impacts, in particular on the region's water resources, coastal and marine ecosystems, forests and agriculture sectors. The action plan also sets the priorities for IADB's engagement on climate change mitigation, focusing on the sector with the largest contributions to the region's GHG emissions: land use and land-use change, power generation and demand, and transport.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
N.A.			

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Michael Collins, IDB-GEF Executive Coordinator		04/13/2012	Francisco Arango	202 - 623 2393	farango@iadb.org