



PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Achieving Low Carbon Growth in Cities through Sustainable Urban Systems Management in Thailand		
Country(ies):	Thailand	GEF Project ID:	5086
GEF Agency(ies):	UNDP	GEF Agency Project ID:	4778
Other Executing Partner(s):	Thailand Greenhouse Gas Management Organization (TGO), Khon Kaen, Nakorn Rachasima, Samui, and Klang Municipalities	Submission Date:	1 March 2013
GEF Focal Area (s):	Climate Change	Project Duration:	48 months
Name of parent program (if applicable): • For SFM <input type="checkbox"/>	N/A	Agency Fee:	\$299,250

A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing from Relevant TF	Indicative Co-Financing ^a
			(\$ a)	(\$ b)
CCM-3	Investment in renewable energy technologies increased	Renewable energy capacity installed	1,000,000	50,000,000
CCM-4	Sustainable transport and urban policy and regulatory frameworks adopted and implemented	Cities adopting in low-carbon programs	1,200,000	2,700,000
CCM-4	Increased investment in less-GHG intensive transport and urban systems	Investment mobilized	800,000	38,250,000
Sub-Total			\$3,000,000	\$90,950,000
4. Project management cost ¹			150,000	900,000
Total Project Costs			\$3,150,000	\$91,850,000

¹ GEF will finance management cost that is solely linked to GEF financing of the project.

B. PROJECT FRAMEWORK

Project Objective: Promotion of sustainable urban systems management in Khon Kaen (KK), Nakorn Rachasima (NR), Samui and Klang to achieve low carbon growth					
Project Component	Type (TA or INV)	Expected Outcomes	Expected Outputs	Indicative Financing from Relevant TF	Indicative Co-Financing ^a
				(\$) ^a	(\$) ^b
1a. Low carbon sustainable urban development planning in selected cities	TA	Increased number of Thai cities that have formulated and implemented low carbon sustainable urban development plans	(1) GHG inventory for each of the project cities. (2) Formulated integrated low carbon urban development and action plan in each of the project cities. - waste management plan at the city level to maximize GHG emissions reduction (KK, NR, Samui, Klang) - sustainable transport plan at the city level to maximize GHG emissions reduction (KK, NR). - integration of waste management and sustainable transport (KK, NR). (3) Completed training on low carbon sustainable urban development planning, decision making, operations and management for local governments.	500,000	2,300,000
1b. Low carbon investments in selected cities	Inv	Increased number of Thai cities with energy efficient urban systems	Investment in comprehensive waste management (KK, NR, Samui) and in sustainable transport (KK, NR) based on the outcomes and outputs of Component 1a.	1,800,000	88,250,000
2. Financial incentives and institutional arrangement in support of low carbon cities initiatives	TA	Increased volume of investments in energy efficient urban systems by government and private sector.	(1) Completed analysis on existing and forthcoming options on financial incentive schemes, both domestic and international including carbon offset initiatives, particularly the establishment of the Thai voluntary carbon market scheme. (2) Financial incentives and institutional arrangement to replicate low-carbon urban development, based on the outcomes and outputs of Components 1a and 1b. (3) Built capacity for market readiness in mitigation efforts, including formulation of NAMAs, at the local government level. (4) Monitoring, reporting and verification system for public offset developed. (5) Enforced policies and environmental regulations addressing mitigation issues at the city level. (6) Low Carbon Cities Network established.	700,000	400,000
Sub-Total				\$3,000,000	\$90,950,000

3. Project Management Cost ²	\$150,000	\$900,000
Total Project Costs	\$3,150,000	\$91,850,000

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

Sources of Co-financing for baseline project	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Thailand Greenhouse Gas Management Organisation (TGO)	In-kind	\$400,000
GEF agency	United Nations Development Programme	Cash	\$50,000
GEF agency	United Nations Development Programme	In-kind	\$250,000
Local Government	Khon Kaen Municipality	In-kind	\$100,000
		Grant	\$30,000,000
	Nakorn Rachasima Municipality	In-kind	\$100,000
		Grant	\$60,000,000
	Samui Municipality	In-kind	\$500,000
	Klang Municipality	In-kind	\$100,000
Grant		\$350,000	
Total Co-financing			\$91,850,000

D. GEF RESOURCES REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY(IES)¹ – N.A.

E. PROJECT PREPARATION GRANT (PPG)³

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)⁴</u>
• No PPG required.	-- 0--	--0--
• (up to) \$50k for projects up to & including \$1 million	_____	_____
• (up to)\$100k for projects up to & including \$3 million	_____	_____
• (up to)\$150k for projects up to & including \$6 million	100,000	9,500
• (up to)\$200k for projects up to & including \$10 million	_____	_____
• (up to)\$300k for projects above \$10 million	_____	_____

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY: N/A

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. THE GEF FOCAL AREA STRATEGIES:

The proposed project is in line with the GEF-5 Strategic Objective CCM-4 on the promotion of energy efficient low carbon transport and urban systems. It consists of interventions in various cities in Thailand to plan and carry out their development programs in a sustainable manner taking into consideration

² Same as footnote #2

³ On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁴ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

energy requirements, GHG emissions and the energy and environmental impacts of such programs. The project is also in line with Strategic Objective CCM-3 on promoting investment in renewable energy technologies since waste-to-energy is a renewable energy resource.

The project includes actions aimed at building upon, influencing and facilitating improvements in the following baseline initiatives in order to bring about a greater level of global environmental benefits:

- Waste-to-energy projects and public transportation project in Khon Kaen Municipality
- Organic waste to biogas project and elevated rapid bus project in Nakhon Rachasima Municipality
- Organic waste to biogas project and public transportation project in Klang Municipality

In that regard, the proposed project which focuses on addressing the issues/concerns regarding the above as well as in the major energy consuming and GHG emitting sectors and urban systems in each municipality, will contribute to the achievement of Strategic Objectives 3 and 4 under the climate change mitigation focal area.

A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS:

National

GEF National Portfolio Formulation Exercise (NPFE): Following an extensive consultative process, Thailand's National Portfolio Formulation Document identifies this low carbon cities proposal as one of the priority projects for GEF-5.

Second National Communication to the UNFCCC: The project is closely aligned with the results of the GHG inventory carried out under the Second National Communication. The energy sector is by far the biggest contributor to Thailand's GHG emissions, accounting for 70% of total emissions. The transport sector alone is responsible for more than one-fifth of the country's GHG emissions. The SNC identifies the waste sector as an important contributor to methane emissions, a potent greenhouse gas. Solid waste disposal on land and waste water handling result in nearly 400,000 tonnes of methane emissions per year, representing 14% of the country's methane emissions. Emissions from the waste sector have increased dramatically over time mainly due to population growth and consumption patterns. During the period 2000-2004, methane emissions from the waste sector grew by more than 25%. Two of the priority GHG mitigation measures put forward are increasing the efficiency in transportation and reducing the amount of waste generated and improving the efficiency of management and administration.

Technology Needs Assessment: Thailand's Technology Needs Assessment identifies two GHG mitigation options for the waste sector: waste management and waste conversion to energy, both of which will be implemented under this project. In addition, mass transit management, which forms the scope of two of the low-carbon investments in Khon Kaen and Nakorn Rachasima, is identified as a GHG mitigation option for the energy sector.

The National Economic and Social Development Board (NESDB)'s 11th National Development Plan (2012-2016): The 11th National Development Plan (2012-2016) identifies as one of its six Development Strategies the Strategy of managing natural resources and environment towards sustainability. Under this Strategy, two development guidelines respond to this proposed PIF including: Reinforcing urban environment and infrastructure management and enhancing good governance in natural resource management. Among others, emphasis will be placed on promoting stakeholders' roles and supporting cooperation so as to drive efficiently the Eleventh Plan, and strengthening roles of local administration organizations.

The Ministry of Natural Resources and Environment (MoNRE)'s Thailand's Strategic Plan on Climate Change (2008-2012) and National Master Plan for Climate Change (2012-2050): The Ministry of Natural Resources and Environment (MoNRE), as the national focal point of the United Nations Framework

Convention on Climate Change and a focal point for climate change implementation in Thailand, has formulated and launched Thailand's Strategic Plan on Climate Change (2008-2012). The Plan identifies one goal to 'reduce greenhouse gas emissions and promote green technologies' across four sectors: energy, water, industry and agriculture with further guidelines to increase carbon sinks and to develop and promote mechanisms that support clean technology development. MoNRE recently finalized the draft National Master Plan for Climate Change (2012-2050), for which Cabinet endorsement is expected by the end of 2012. As per the latest draft available, the Plan's Strategy #2 aims to reduce GHG emissions and increase carbon sinks based on sustainable development through 1) promoting a low-carbon mode of urban management; 2) promoting low-carbon solid waste management; and 3) promoting low-carbon services.

Thailand Greenhouse Gas Management Organization (TGO)'s Strategic Plan (2012-2016): Thailand Greenhouse Gas Management Organization (TGO) overall is responsible for greenhouse gas reduction in Thailand. According to its current Strategic Plan (2009 – 2011), the organization was established to "promote greenhouse gases reduction activities at both project and policy level for environmentally sustainable development, economy, society". It is also expected to support carbon credit projects such as biomass projects, biogas-to-energy projects and waste-to-energy projects. In this regard, TGO is expected to support other government agencies and other sectors including private sector for their further involvement in carbon emission reduction activities. TGO is currently developing its draft Strategic Plan (2012-2016). Under its Vision of 'Effective Management of Greenhouse Gases for Better Economy, Environment and Society', TGO has two main strategies including 1) to promote the reduction of GHG emissions and 2) to promote all stakeholders to participate in GHG emission reduction efforts. The first strategy focuses on the development of national MRV systems and NAMAs, carbon market, CDM, and GHG Information Center & National GHG Registry. The second strategy includes support to Thailand to become a Low Carbon Economy, public participation for GHG emission reduction, a development of domestic carbon market, and promote co-benefits for society from GHG emission reduction activities.

Municipality/City Level

Khon Kaen Municipality: The Khon Kaen Municipality was one of the municipalities which signed the Declaration on Low Carbon Actions (2010-2019) with UNDP and other organizations, including the Ministry of Natural Resources and Environment, Khon Kaen Governor's Office, Khon Kaen Chamber of Commerce, Khon Kaen Federation of Industry, etc. The Khon Kaen Declaration on Low Carbon Actions defines three missions which also include the increase of carbon sink and the reduction of GHG emission for sustainable development. Khon Kaen (as a whole province) is currently developing a Greenhouse Gas (GHG) Inventory which will provide a basis (baseline information) for the implementation of the Action Plan. According to the Action Plan, the Khon Kaen Municipality has roles and responsibilities in the areas of public transportation, waste management, urban green space and a learning center on climate change. Concerning this Action Plan, the planned budget is set at about 7,040,000,000 baht. In addition, the Municipality's three-year Development Plan (2011-2013) also identifies strategic objectives on natural resources and environment, urban planning and transportation management. The Municipality will be a key local partner of this project.

Nakhon Rachasima Municipality: The Nakhon Rachasima Municipality (also known as Korat) signed a Declaration on Development Cooperation on 'Clean City, Clean Mind' Initiative with UNDP on May 1, 2009 to support efforts to reduce greenhouse gas emissions and enhance good governance at the local level. With this Initiative, the Korat Municipality will work to extend its services delivery in the areas of solid waste management, waste-to-energy activities, carbon credits trading, air pollution, alternative energy (biodiesel from used cooking oil), energy efficiency in buildings, partnership with private sector in carbon emission reduction activities, etc. It will be one of the local partners for this project.

Samui Municipality: Samui Municipality is one of the participating cities in the Asia-Pacific Economic Cooperation's Low Carbon Model Town (LCMT) project. Within Thailand, the project is coordinated by the Department of Alternative Energy Development and Efficiency (DEDE), within the Ministry of Energy. The objective of the LCMT project is to promote low carbon technologies in city planning in order to manage rapidly growing energy consumption and GHG emissions. The Mayor of Samui has set a vision for a

“clean, green and secure Samui” and the island as a whole has set an ambitious target of reducing CO₂ emissions by 30% by 2030, compared to the baseline year of 2010. With more than 1 million tourists per year, promoting eco-tourism is an important part of the city’s development planning. Samui is currently in the process of formulating its third Urban Plan for the upcoming five-year period, which is expected to contain strong elements related to low carbon growth.

Klang Municipality: Klang Municipality has been designated as a Regional Learning Center on Urban and Environmental Management (Eastern Region) since 2007 as part of a partnership with UNDP, Thailand Environment Institute (TEI) and UN-HABITAT. With its goal to become a carbon neutral (zero emission) city, Klang Municipality worked in partnership with TGO as a pilot city on the development of Greenhouse Gases Inventory for the Low Carbon City Project, which resulted in a first handbook on Low Carbon City and GHG Inventory to be disseminated and shared with other municipalities nationwide. Klang Municipality is also one of the key municipal partners of the TGO-owned Carbon Footprint Project. Klang Municipality signed a MoU with Institute for Global Environment Strategies (IGES) to provide a training program on environmental management in late 2011 to other municipalities. The Municipality is part of IGES’s urban forum and the Local Government for Sustainability (ICLEI)’s Cities for Climate Protection Campaign (CCP). According to its three-year Development Plan (2012-2014), the Municipality has a plan to become a 1) waste management city, 2) energy efficiency city, 3) green space city, and 4) sustainable consumption city. The Municipality itself has launched a policy on energy and waste through minimizing waste and reducing fossil fuel and electricity use.

B. PROJECT OVERVIEW:

B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:

Introduction

More than a third of Thailand’s population of 69 million lives in cities and with an urbanization rate of 1.8% per year that proportion will continue to rise. Over the past several decades, Thailand has experienced rapid economic growth, a trend that is expected to continue. Economic growth is projected to average 5.3% per year in 2014-17. At the same time, GDP per head (in PPP terms) is expected to increase from \$8,250 in 2008 to \$10,580 in 2014. Brisk economic expansion and urbanization have combined to create both benefits and challenges. Since 2000, passenger car registrations have skyrocketed from 83,000 to more than 416,000 per year, contributing to traffic congestion and air pollution in many cities. Thailand also faces serious challenges in managing municipal solid waste (MSW). In 2009, the volume of waste generated in Thailand reached more than 15 million tonnes - approximately 41,000 tonnes per day. Of this amount, only approximately 3.3 million tonnes, or 22% were separated and sent to recycling centers.

In the context of Thailand, sustainable urban systems management is understood to encompass **energy efficiency & renewable energy applications in waste management, public transportation and urban green space**. As these areas reflect both sources of carbon emissions and carbon sinks, cities potentially have many roles to play in terms of carbon emission reduction and the increase of carbon sinks. Cities are not only key energy consumers and greenhouse gas emitters, but also are energy producers and suppliers. They have potential to become motivators and actors for adopting energy efficiency; using renewable energy; providing public transportation services and non-motorized transport facilities; managing urban waste; increasing green areas, etc. Also with their authorization, cities are both ‘regulators’ and ‘investors’ in the energy, transport, and waste management sectors.

There are three types of municipalities in Thailand, categorized mainly by the size of their population:

- (1) Large municipality (*Thesaban Nakhon*) with population of at least 50,000;
- (2) Medium municipality (*Thesaban Muang*) with population of at least 10,000;
- (3) Small municipality (*Thesaban Tambon*) with population of at least 5,000.

Considering the readiness to participate, the project will work with four pilot municipalities, including two large municipalities (Khon Kaen and Nakhon Ratchasima), one medium municipality (Samui), and one small municipality (Klang), with the aim of linking the four cities together under the Low Carbon Cities Network. All of these cities are at a critical juncture to choose their development pathway towards a low carbon and climate resilient development pathway. Experiences and lessons learned will be shared across the municipalities to help shape project activities in order to achieve the greatest impact.

With a total of 2,008 cities/municipalities nationwide, the potential contribution of cities in addressing climate change and reducing Thailand's carbon emissions is immense. Through the effectiveness of urban systems management within their geographic constituencies, cities/municipalities can become more active players in reducing GHG emissions by integrating low carbon and sustainability into all aspects of the urban development planning process.

Presently, various cities in Thailand are starting to embrace sustainable development concepts such as green cities, eco-cities and low-carbon cities. However, some long-standing problems/barriers have seriously restricted or limited the achievement of urban sustainable development objectives:

1. Inadequate policy and regulatory frameworks supportive of low emission sustainable development in cities.
2. Lack of available successful examples and low emission development technologies at the local level.
3. Lack of interest and awareness by the cities and the general public to support low emission sustainable development.
4. Capacity to plan, design and implement integrated sustainable development actions is insufficient.

Baseline Projects

There are six baseline initiatives that the project will build upon, influence and facilitate improvements in. These priority interventions were identified by the participating municipalities and are linked at the policy level, both nationally and locally. The Eleventh National Development Plan calls for a shift in the development paradigm toward a low carbon and environmentally friendly economy and society. In order to achieve that goal, the development plan recommends enhancing the energy efficiency of the transportation sector and improving the efficiency of solid waste disposal and community waste water treatment. According to the Thailand Second National Communication to the UNFCCC, the transport sector accounts for more than one-fifth of the country's GHG emissions, while the waste sector contributes 14% of the country's methane emissions. Each of the participating cities consider transit oriented development and managing waste sustainably as a vital part of their vision for a low carbon future. By focusing on the transport and waste sectors, the cities will be able to share and exchange their knowledge and experiences in these areas.

Project Name	Short Description	Implementation Period	Available Budget
Waste-to-energy project in Khon Kaen	Under a public-private partnership, the Municipality will work with a private company called Alliance Clean Power to manage a waste management facility for the next 20 years. Possible technologies or approaches could include the production of biogas for electricity generation, refuse derived fuel, and compost.	2013 – 2033 ⁵	\$22m
BRT system in Khon Kaen, Phase 1	The Master Plan recommends a bus rapid transit (BRT) system with five routes (transit lines) for Khon Kaen which would require a strategic development of three	Phase 1: 2012 – 2017	\$40m

⁵ The contract with Alliance Clean Power was signed and the construction work has just started. According to the contract, the system should be up and running by August 2013. The contract with Alliance Clean Power covers the period of 20 years of operation and maintenance.

	phases. The first phase (Year 1-5) will cover a main route and supported ring network and feeder systems.		
Municipal solid waste treatment in Nakorn Rachasima	This small-scale, municipal solid waste treatment project involves the anaerobic digestion of the organic fraction of municipal solid waste which otherwise would have been dumped on a landfill in a municipal area. The installed bio-digester will have a capacity of 160 tons of organic waste per day. The biogas generated in the anaerobic digester will be used for energy generation. The installed capacity of the biogas engine is 0.8 MW.	Started operating in June 2012	\$14m
Elevated BRT system in Nakorn Rachasima	The city is currently conducting a feasibility study for an 11-kilometer elevated bus rapid transit (BRT) system. This BRT on the Mitrphap Road is expected to reduce traffic congestion while using cleaner, low carbon fuels. The BRT expects to serve approximately 125,000 passengers per day.	2013 – 2015	\$400,000
Comprehensive Waste Management in Samui Municipality	The municipality has committed its own budget of THB 45 M per year over the next 20 years (THB 900 M in total) to develop a comprehensive waste management system to replace the existing use of incinerator. The plan is to introduce waste-to-energy to generate approximately 500KW of electricity. Currently, the project is at the stage of calling for bidding to find subcontractor. The contract is expected to start in August 2012. In addition, this project will also incorporate the on-going activities to promote waste reduction at the sources e.g. in schools and communities, and the mid-stream waste separation by the waste rickshaw. Samui has 120-130 tons of waste/ day, which usually increases to 140-150 tons during the high season (from Sept to Jan each year).	2012 – 2014	\$30m
Comprehensive Waste Management in Klang Municipality	Klang Municipality has launched a project to improve the capacity and efficiency of its waste management scheme (operating since 2004), in order to cope with the increasing amount of waste in the future both from Klang Municipality and other adjacent 12 local government organizations. A number of approaches and practices are planned to achieve a 'zero organic and solid waste' goal. Using a simple outdoor conveyor belt, recyclable waste, food waste and other types of waste are manually separated. After separation, wastes such as plastic bags, milk containers, snack packaging and papers are sold, while organic waste, such as food waste is turned into compost and biogas.	2012 – 2016	\$505,000

B. 2. 1. INCREMENTAL REASONING: DESCRIBE THE INCREMENTAL ACTIVITIES REQUESTED FOR GEF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED BY THE PROJECT:

The 11th National Economic and Social Development Plan (2012-2016) sets a vision in moving Thailand towards a 'low carbon and climate resilient society' as one of its six development pillars. This marks the

first time that climate change issues have explicitly become part of the national agenda, instead of an issue relegated to simply meeting obligations to the convention handled solely by the Ministry of Natural Resources and Environment. The policy infrastructure has been put in place to move towards that direction, including the establishment of the National Climate Change Committee in 2006, the setting up of TGO in 2007, and the forthcoming Climate Change Master Plan. However, translating the national vision into real and responsive actions on the ground will require a transformation in the way of doing business, policy coherence and coordination, as well as substantial investment in capacity building and institutional strengthening efforts. This project will provide the strategic interventions to link policy frameworks with capacity building on the ground, to enable Thailand to achieve its green growth development pathways.

While there are already various ongoing low carbon cities initiatives in Thailand, the incremental contribution of this project is unique for four reasons:

- First, it will be the first project to leverage these various but disconnected efforts into a more standardized and integrated approach, so that low carbon development planning and implementation in these cities will be more systematic, information-based, accountable and MRV-able. Such support will make a tangible contribution to preparing Thailand for the emerging climate finance regime, thereby potentially leveraging significant resources for future mitigation efforts.
- Second, the project will not only focus on pilot cities but also emphasize the link to policy frameworks, especially in the enhancement of institutional capacity to local governments and the TGO in the development, establishment and implementation of financial incentives and technical support to cities to stimulate a shift to low carbon, climate resilient development. This support will supplement TGO's existing strategic plans in developing a domestic carbon market (T-VER: Thailand Verified Emission Reduction), to provide fiscal and financial incentives to cities to go low carbon ways.
- Third, the interventions promoted under the project are first-of-a-kind approaches. This will be the first experience with BRT in Khon Kaen and Nakorn Rachasima. Up until now, there have not been any successful examples of municipal solid waste plants in Thailand. GEF funding will be instrumental in ensuring comprehensive and integrated planning, high quality design, the use of appropriate technology and effective operations and maintenance. If successful, these pioneering investments will have an important demonstration effect for other cities in Thailand and in the region.
- Finally, the project will use the evidence and experiences gained from the city investments to inform policy related to promoting low carbon urban systems at the local level, for replication and south-south exchanges in light of the advent of the economic integration of ASEAN countries in 2015.

The project comprises two main components as follows. While the first component focuses on low carbon planning and investments at the city level, the second component focuses on financial incentive schemes at the national level, in particular the Thailand VER regime, to support mitigation efforts at the local level. Under this model, cities can be considered as potential suppliers of carbon credits. The second component will also link the city initiatives together through the Low Carbon Cities Network as a means of facilitating information exchange and knowledge sharing between the municipalities.

Component 1a: Low carbon sustainable urban development planning in Khon Kaen, Nakorn Rachasima, Samui and Klang Municipalities

The expected outcome of this component is an increased number of Thai cities that have formulated and implemented low carbon sustainable urban development plans. The main outputs that will contribute to the achievement of this outcome are: (1) GHG inventory for each of the project cities; (2) Formulated integrated low carbon urban development and action plan in each of the project cities, as well as a waste management plan at the city level to maximize GHG emissions reduction (KK, NR, Samui, Klang), a sustainable transport plan at the city level to maximize GHG emissions reduction (KK, NR), and integration of waste management and sustainable transport (KK, NR); and (3) Completed training on low carbon sustainable urban development planning, decision making, operations and management for local governments. By building the capacity of municipalities to engage in integrated low carbon urban planning

and to implement and manage low emission programs, the project will help city planners gain the necessary skills and experience to make continued and sustained investments in clean energy and energy efficiency.

The main envisaged TA activities under this component include:

- Develop a survey report on the trends/patterns and GHG emissions in the project cities.
- Conduct a review of sustainable urban development policies and programs implemented by the municipalities.
- Formulate integrated low GHG emission urban development strategy and action plan in each of the project cities, as well as:
 - a waste management plan at the city level (KK, NR, Samui, Klang);
 - a sustainable transport plan at the city level (KK, NR); and
 - integration of waste management and sustainable transport (KK, NR).
- Conduct trainings on low carbon sustainable urban development planning, decision making, operations and management for decision makers.
- Train municipal officials on the effective management and operation of the proposed projects.
- Strengthen the enforcement of existing policies and develop new environmental laws and regulations at the Municipality level as appropriate (e.g., waste management fee, parking zones).

Component 1b: Low carbon investments in selected cities

The expected outcome of this sub-component is an increased number of Thai cities with energy efficient urban systems. The major output will be investment in comprehensive waste management (KK, NR, Samui) and in sustainable transport (KK, NR) based on the outcomes and outputs of Component 1a. The following investment activities will be financed by the GEF. For the BRT project in Khon Kaen, GEF resources will fund supportive investments such as traffic control signals, integration infrastructure (pedestrian access ways, bicycle integration) and landscaping, designed to increase the number of passengers on the system. A recent study conducted by the Asian Transportation Research Society (ATRANS) found that the implementation of a BRT priority signal control system in Khon Kaen could significantly reduce the travel time of the buses. For the elevated BRT in Nakorn Rachasima, GEF funding will support the ITS infrastructure, notably automatic vehicle location and real-time information displays, in order to enhance operational efficiency and customer service. For the waste management projects in the four project cities, GEF funding will be used to finance enhanced solutions for solid waste management (collection/handling, processing and disposal); in particular the old accumulated solid waste in dumpsites, which has proven very challenging in past municipal solid waste projects.

GEF support is required for technical assistance on establishing GHG inventories, supporting the municipalities with low carbon urban planning, and training local officials on low emission development planning and operations and maintenance of the proposed projects. GEF resources are also needed for the investment activities in the transport and waste sectors in the project cities.

Component 2: Financial Incentives and Institutional Arrangement in Support of Low Carbon Cities Initiatives

The expected outcome of this component is an increased volume of investments in energy efficient urban systems by the government and private sector. The key outputs that will support the realization of this outcome are: (1) Completed analysis on existing financial incentive schemes (such as banks, CDM PoA, voluntary carbon market scheme); (2) Financial incentives and institutional arrangement to replicate low-carbon urban development, based on the outcomes and outputs of Components 1a and 1b; (3) Built capacity for market readiness in mitigation efforts, including formulation of NAMAs, at the local government level; (4) Monitoring and verification system for public offset developed; (5) Enforced policies and environmental regulations addressing mitigation issues at the city level; and (6) Low Carbon Cities Network established.

While the institutional arrangement to address climate change at the national level has already been established⁶, the link between the national government and the municipalities is not yet clear. The recently concluded Climate Public Expenditure and Institutional Review (CPEIR) found that there is a gap between what higher levels of government are mandated to do on climate change and what municipalities and sub-districts receive in terms of support. This is where the project can make an important contribution. The practical, on-the-ground experience gained by the first-of-a-kind low carbon planning and investments at the city level, which comprise Components 1a and 1b, will inform the type and level of financial incentives required to support subsequent climate change investments in other cities. At this stage, the two main sources of funding envisaged are climate change related funds, such as the Energy Conservation (ENCON) Fund and Environmental Fund, and the forthcoming domestic voluntary carbon market, the Thailand Verified Emissions Reduction (T-VER) scheme.

Under the T-VER regime, which is expected to begin in October 2014, it is envisaged that cities will serve as suppliers of carbon credits, while TGO will act as a facilitator, by linking the cities to potential buyers from the government and private sectors, who will likely be motivated by CSR aims. It is expected that the voluntary market, which will feature third-party verification to ensure reliable reduction performance, will be an important catalyst for subsequent clean energy investments at the city level. The mapping of domestic and international financial incentive schemes that will be carried out by the project could identify additional sources of funding for low carbon initiatives, such as a carbon tax for example. In addition, by putting in place the necessary infrastructure for the formulation of urban NAMAs and the development of an MRV system, the project will help position Thailand to attract international support in the form of technology transfer, capacity building and financial support for future mitigation actions.

The chief anticipated activities under this component include:

- Conduct a review of existing financial incentive schemes (such as CDM PoA, Voluntary Carbon Market Scheme in Thailand) as well as potential financial resources from the international community such as donors and international organizations.
- Develop or enhance financial incentive schemes in order to support the implementation of the activities proposed by each municipality.
- Develop a framework for the design of urban NAMAs in Thailand.
- Develop a monitoring and verification system for public offset.
- Support the enforcement of policies and environmental regulations addressing mitigation issues at the city level.
- Establish a Low Carbon Cities Network as a means of sharing lessons and experiences across the participating municipalities.

GEF resources are required for the technical assistance in developing financial incentive schemes for low carbon projects, developing a framework for the design of urban NAMAs, developing an MRV system, and establishing a Low Carbon Cities Network.

Global Environmental Benefits/Emission Reductions

With the various interventions that will be carried out under this proposed project and the expected outputs, it is estimated that the proposed project will result in 1,600,000 tCO_{2e} direct emission reductions over a period of 15 years. Of this amount, it is conservatively estimated that 20% or 320,000 tCO_{2e} are directly attributable to the GEF incremental activities outlined above. This estimate will be validated and further refined during the project development stage.

The waste management projects in **Khon Kaen Municipality** will generate emission reductions of about 21,000 tCO_{2e}/year as follows.

* Waste-to-energy: 260 tons of waste * 55% (organic waste) = 143 tons of organic waste per day. Assuming a baseline of dumping on a deep landfill (> 5 meters) and tropical conditions this will lead to

⁶ The National Committee on Climate Change, chaired by the Prime Minister, has the mandate to direct the national climate change response. TGO serves as one of the main institutional pillars of the Committee.

avoided methane emissions of around 15,000 tons of CO_{2e} per year. The produced RDF and biogas can be used for thermal or electricity generation, replacing the use of fossil fuels. The total estimated emission reductions from the replacement of fossil fuels are around 3,000 tons of CO_{2e}/year.

* Comprehensive waste management: 4,500 liters of oil per day * 260 days a year = 1,200,000 liters of oil per year. Assuming the replacement of diesel this will lead to 1,200,000 liters * 2.6 kgCO_{2e}/L = 3,100 tCO₂/year.

Total GHG emission reductions from the waste-to-energy and comprehensive waste management projects are estimated at around 21,000 tCO_{2e}/year. Phase 1 of the planned BRT in Khon Kaen is expected to reduce an additional 20,000 tCO_{2e}/year.

The organic waste to energy project in **Nakorn Ratchasima Municipality** (anaerobic fermentation of the organic fraction of waste in a bio-digester and using the biogas for electricity generation) will result in approximately 10,000 tCO_{2e} for the first two years, and will increase to 20,000 tCO_{2e} per year thereafter.

The planned BRT in Nakhon Ratchasima Municipality will reduce approximately 10,000 tCO_{2e}/year.

In **Samui Municipality**, the effective implementation of the comprehensive waste management system is expected to offset at least 15,000 tCO_{2e} per year.

The total direct emission reductions are estimated at 1,600,000 tCO_{2e} over 15 years, resulting in a unit abatement cost of just under \$2/ton of CO₂. Moreover, the project is expected to influence the implementation of subsequent sustainable urban systems projects and will bring about CO₂ emission reductions that can be indirectly attributed to this project. Assuming a replication factor of 3, the indirect emission reductions over an influence period of 10 years will be 4,800,000 ktCO_{2e} based on a bottom-up approach.

B.3. DESCRIBE THE SOCIO-ECONOMIC 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:

The project will enhance good governance at the municipal level through the strengthening of policy and planning processes that address climate change and urban systems management issues with stronger participation of key stakeholder groups. Planning effective and sustainable urban infrastructure investments requires an understanding of the needs and preferences of a wide range of stakeholders regarding service delivery, costs, and corresponding social impacts. Therefore, public participation will be an integral part of the project. Public consultations will be held for the BRT investments and MSW projects. It is expected that civil society organizations will play an important role in ensuring public participation and involvement in the low carbon urban development schemes.

The implementation of the BRT systems in Khon Kaen and Nakorn Rachasima will increase the speed and quality of bus services in those cities, resulting in improved passenger comfort, better fuel efficiency, and lower emissions. In addition, improved traffic congestion and air quality will yield tangible health and productivity benefits for city residents. By the same token, the MSW management projects will ameliorate local air quality and odor and reduce contamination of surface and groundwater. Recycling offers local communities the potential to generate income, while diverting materials away from landfills. Each of the MSW projects will improve the living conditions of poorer communities and the working conditions of waste management workers, including waste pickers.

Through the implementation of activities, efficient and effective management of urban systems including better public transportation services, solid waste management, waste separation and recycling, and the increase of green spaces will be improved. In this regard, the municipality will greatly improve its service delivery and that will lead to a greater degree of satisfaction among the public. As a result, people will in turn have a better physical and social environment and more livable community to live in. Alternative sources of income as a result of the project activities (e.g., selling waste from waste separation activities)

would also be expected to lead to an improvement in household income. The project's main beneficiaries include women and the project will ensure their equitable participation and benefit sharing in the project-related activities. At the national level, Thailand will achieve another step to reduce its total carbon emissions through actions taken at the municipality project sites. This will also serve as a benefit to the region and the international community as a whole.

B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MITIGATION MEASURES THAT WILL BE FURTHER DEVELOPED DURING THE PROJECT DESIGN:

While all possible efforts will be done to ensure the successful implementation of the proposed project, there are certain risks that are anticipated, which the project will also endeavor to mitigate. The following table summarizes the potential risks that might prevent the project objective(s) from being achieved, the level of risk and the proposed mitigating actions for each risk:

	Risk	Level of Risk	Mitigating Action
1	The project will require a high degree of coordination among the four municipalities, civil society, TGO, and other partners. The involvement of many stakeholders could prevent efficient decision-making.	L	As the implementing partner, TGO will play an important convening and coordinating role. TGO has already carried out this role through its carbon footprint initiative and other projects. The Project Board and Technical Advisory Committee, the composition of which will be agreed during the project design stage, will also play an important role in decision-making, guiding the project, and bringing all partners together.
2	If the disbursement of co-financing for municipal projects does not meet the scheduled timeframe, that could delay activities and negatively impact project implementation.	L	A series of consultations were held with the municipalities during the PIF formulation stage, where it was confirmed that all of the planned interventions have been approved and will soon be ready to begin implementation. One of the main tasks of the project design stage will be to secure firm commitments from the responsible agencies. A realistic schedule for cost-sharing arrangements will be put in place.
3	Lack of commitment and low participation from the private sector and other stakeholders	M	Involvement of the private sector from the project design stage, dissemination of the latest information through the appropriate channels and identification of their needs and demands through continuous dialogue. A private company, Alliance Clean Power, is already involved in the MSW project in Khon Kaen. Opportunities to involve the private sector in other interventions will be explored during the PPG phase and during implementation.
4	Political situation and/or change of key senior personnel (the Mayor and Councilor members) at the local government level could potentially affect the implementation of planned activities.	M	Regular communications with the Municipality team will be maintained, not only at the policy level but also with key personnel at the working level who will play a key role in terms of implementing the planned activities at the municipal level.
5	Unrealistic expectations from municipality project sites about the level of support that the proposed project can provide could lead to a decline in their support and commitment.	L	To mitigate this risk, the project team will keep fully abreast of project progress at each project site and maintain a good level of involvement and interaction with each site throughout the life of the project. The early briefing meetings with each site will emphasize the objectives of the project and components which would lead to the results of the project at the end.

The overall level of risk is low.

B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, NGOS, CIVIL SOCIETY ORGANIZATIONS, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:

The project activities will be implemented in cooperation with various organizations and agencies, most notably those listed below.

Name of Stakeholder	Indicative Role
TGO	Thailand Greenhouse Gas Management Organization (TGO) has an overall mandate for GHG reduction in Thailand and will be the primary implementing partner for this project. TGO will coordinate the activities of the four participating municipalities and provide the link to national policy and financial incentives. It will support the four municipalities in carrying out the GHG inventories and preparing low carbon urban development plans and will provide strategic advice and technical support where needed. TGO is also the focal point for NAMAs within the Thai Government.
Khon Kaen Municipality	The Municipality was one of the municipalities which signed the Declaration on Low Carbon Actions (2010-2019) with UNDP and other organizations. The Municipality will be a key local partner of this project.
Nakorn Rachasima Municipality	The Municipality signed a Declaration on Development Cooperation on 'Clean City, Clean Mind' Initiative with UNDP on May 1, 2009 to support efforts to reduce greenhouse gas emissions and enhance good governance at the local level. It will be one of the key local partners for this project.
Samui Municipality	Samui Municipality is one of the participating cities in the Asia-Pacific Economic Cooperation's Low Carbon Model Town (LCMT) project. It will be one of the key local partners for this project.
Klang Municipality	Klang Municipality has been designated as a Regional Learning Center on Urban and Environmental Management (Eastern Region) since 2007 as part of a partnership with UNDP, Thailand Environmental Institute (TEI) and UN-HABITAT. It will be one of the key local partners for this project.
GIZ	GIZ's Clean Air Project will complement this proposed project in terms of strengthening the network of municipalities and addressing capacity in the climate change mitigation area.
The National Municipal League of Thailand (MLT)	As a representative organization of all municipalities in Thailand, the MLT has roles and responsibilities in promoting cooperation and collaboration between municipalities, local governments, communities and the general public.

B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

During the project design phase, close coordination will be carried out with key stakeholders including government agencies, academic institutions and other donor agencies, such as the National Municipal League of Thailand (MLT) and the German International Cooperation (GIZ) which currently has a project on Clean Air and Climate Change Mitigation for Smaller Cities in the ASEAN Region. GIZ is also assisting Khon Kaen Municipality to develop a GHG inventory expected to be completed by January/February 2012 as a baseline for its Action Plan on Low Carbon Reduction. Regional organization partners, such as the Local Governments for Sustainability (ICLEI) might be involved as one of the key partner agencies in due course.

This proposed project, once fully implemented, will further establish coordination with and/or complement the following national initiatives. The first initiative is the Low Carbon City Model Project that Klang Municipality is currently working on in partnership with TGO as a pilot city on the development of Greenhouse Gases Inventory which will result in a first handbook on Low Carbon City and GHG Inventory Model to be disseminated and shared with other municipalities nationwide.

The second initiative relates to the Carbon Footprint Project that is being managed by the TGO through its Business Development Office. Under this project, TGO is partnering with four cities including Phuket Municipality (Phuket Province), Si-Khew Municipality (Nakhon Rachasima Province), Um-Pawa Municipality (Samutr Songkram Province) and Klang Municipality (Rayong Province) as pilots to become 'low carbon cities'. This project has three objectives to 1) analyze the carbon footprint of the municipalities; 2) augment municipalities' capabilities in measuring their carbon emissions; and 3) help the municipalities develop baseline, indicators, M&E and mitigation measures to achieve their low carbon city objective. Overall, this project supports the implementation of mitigation measures and/or action plans to reduce GHG emissions with minimal dependence on technology, and encourages participation from the general public.

The third initiative is one in which TGO is partnering with the Department of Alternative Energy Development and Efficiency (DEDE) to study a pilot project on energy efficiency in buildings. The study will look at how GHGs can be reduced and carbon credits generated in the buildings sector. The study will also look at ways to expand carbon offsetting through corporate social responsibility (CSR) to stimulate the demand for carbon credits in Thailand. This is expected to further assist TGO's goal to strengthen Thailand's domestic carbon market through the voluntary market mechanism. In this regard, TGO has a plan to provide grants or loans through existing funds, such as ECO fund and carbon fund to provide incentives for further investment in emission reduction activities.

The fourth initiative is the ASEAN ESC Model Cities Program under the management of the Office of Natural Resources and Environment (ONEP) and funded by the Institute for Global Environmental Strategies (IGES). Together with the other two municipalities which are Phitsanulok and Mae Hong Son, Klang Municipality will be a trainer on City and Urban Environment Management Program to be provided to other municipalities, the public and students during December 2011 and January 2012.

In addition, this project will complement the UNDP-EU supported 'Low Emission Capacity Building' (LECB) project, which is currently being designed (expected implementation during 2013-2015). This project aims at capacity building on NAMAs and MRV with a particular focus on the industrial sectors, while it can be said that this GEF proposal will focus on capacity building on urban NAMAs. The results of these two projects will enable Thailand to be better equipped and institutionally ready to respond to international obligations, if and as needed.

There are also other initiatives being implemented in this subject area by other international organizations in Thailand. The Asian Development Bank (ADB) has regional programs, mainly in Greater Mekong Subregion (GMS) focusing on climate change mitigation and adaptation. They include Core Environment Program-Biodiversity Conservation Corridor Initiatives that will support around US\$7.5 million for climate change activities. In addition, ADB will contribute US\$2 Million toward technology promotion in areas such as carbon capture and energy efficiency. The World Bank expects to invest approximately US\$300 million targeting the private sector in Thailand through the Clean Technology Fund (CTF). In addition, the World Bank through the Forest Carbon Partnership Fund expects to invest around US\$3-4 million in mitigation related activities under the program for Reduced Emissions from Deforestation and Forest Degradation plus (REDD+), The coordination with these regional programs will mainly be limited to information sharing.

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

The proposed project is aligned with UNDP's comparative advantage, as articulated in the GEF Council Paper C.31.5 "Comparative Advantage of GEF agencies", in the area of capacity building, integrated policy development, institutional strengthening, community participation, advocacy and policy advice, providing technical and policy support as well as expertise in project design and implementation. UNDP assists countries in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP also has extensive inter-country programming experience. As part of its country-level coordination, UNDP has experience working with and engaging local governments, NGOs and community groups. An example of this is through its

management of the GEF Small Grants Program with some 12,000 small projects in more than 122 countries.

UNDP's comparative advantage for the proposed project lies in its continuous in-country presence and experience working with the Government of Thailand on various climate change and environment projects. Through the Environment Unit and Governance Unit, the UNDP Country Office in Thailand has extensive experience in partnering and coordinating with local governments at the provincial and city level. Apart from programming experience, the UNDP Country Office has strong capability in program management, program assurance, and monitoring and evaluation. With a focus on results-based management (RBM), UNDP will work with key partners to strengthen the monitoring and evaluation of development results in order to enhance anticipated results and ensure transparency and accountability in the use of resources.

In terms of existing partnership with cities in Thailand, UNDP Thailand Country Office signed a Declaration of Partnership with Nakhon Rachasima (Korat) Municipality under the "Clean City, Clean Mind" Initiative on May 1, 2009. Nakhon Rachasima Municipality is facing environment-related challenges that come with rapid urbanization, namely an increasing amount of waste, traffic congestion and growing pollution problems. Under this partnership, UNDP and the Nakhon Rachasima Municipality joined hands to promote efforts to reduce GHG emissions and enhance good governance at the local level. In addition, the Khon Kaen Declaration on Low Carbon Action was signed by all sectors in Khon Kaen province and UNDP Thailand Country Office on September 11, 2009. The Declaration was established in order to "reduce carbon emission and alleviate the socio-economic and environmental loss due to natural disasters and climate change". Under this Declaration, all signatories will work in collaboration through the joint efforts to reduce greenhouse gas emission, increase green spaces and increase carbon sinks.

C.1. INDICATE THE CO-FINANCING AMOUNT YOUR AGENCY IS BRINGING TO THE PROJECT:

UNDP will provide a total of \$300,000 in co-financing, including cash co-financing of \$50,000⁷ for the total of four years through TRAC-resources-funded activities implemented by the Environment and Governance units of the UNDP Country Office. In the coming year, the Environment Unit of UNDP will assist the Thai Government to formulate and strengthen an institutional arrangement plus budgeting and financing planning towards a comprehensive Climate Finance Framework. A critical element of this climate finance framework will also be channeled down to local governments including cities and municipalities who will become critical actors for this framework. The Governance Unit will also work in partnership with cities in Thailand to improve their functions and services. This is a long-term partnership that the UNDP Thailand Country Office is establishing with the Thai Government over the next five years.

C.2. HOW DOES THE PROJECT FIT INTO YOUR OWN AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:

This proposed project is in accordance with the direction of UNPAF⁸ (2012-2016) for Thailand, in particular Outcome 2 "Energy, industry and transport sector progressively contribute to the development of a low-carbon and green economy". Under this UNPAF framework, a joint partnership has been developed in six priority areas including social protection, human rights and access to justice, strategic information, international cooperation, creative economy and **climate change**. In the area of climate change mitigation, the UNPAF has identified one of the anticipated outcomes as "national and sub

⁷ UNDP Thailand's TRAC budget is only \$400,000 per year for the entire Country Office, which covers program work in democratic governance, crisis prevention and recovery, environment and energy, and policy advocacy.

⁸ For Thailand, this Framework is referred to as United Nations Partnership Framework (UNPAF), not United Nations Development Framework (UNDAF) as normally referred to in other UNDP-presence countries. This is in agreement with Thailand who is becoming an emerging donor and considered as a Middle-Income Country.

national capacities increased for promotion of cleaner technologies and reduction of greenhouse gases in energy, industry and transport sector”.

This proposed project is also in line with UNDP Thailand Country Programme Document (2012-2016). The CPD identifies a strategic objective of ‘Effective Response to Climate Change’ with three program components, one of which is “Low Emission and Climate Resilient Society Initiatives”. Under this Component, the UNDP Thailand Country Office will enhance human and institutional capacity of key national and sub-national agencies to achieve local low emission and resilient society objective. UNDP will facilitate collaborations among Thailand’s line ministries, agencies and Climate Change Convention Officers (CCCOs), and partner with them in translating national strategies, policies and plans on climate change into implementation at various levels. In this regard, UNDP will play a catalytic role in facilitating the establishment of a ‘Thailand Climate Change Alliance’, representing a national and sub-national network of various stakeholders in the different aspects of climate change. UNDP will also introduce a carbon financing concept to the Thai Government to promote an effective institutional arrangement and efficient financial and budgeting processes in support of its Climate Change Master Plan and relevant policies.


Regarding staffing, UNDP Thailand has a team of qualified staff who can effectively supervise the implementation of this project. These key staff members are a Programme Specialist, Programme Analyst and Programme Associate based in Bangkok. Moreover, there will be adequate technical backstopping to be provided by the UNDP Asia Pacific Regional Centre (Bangkok) to UNDP Thailand in the design, development, implementation, management, monitoring and evaluation of this proposed project.

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):

NAME	POSITION	MINISTRY	DATE (Month, day, year)
Mr. Chote Trachu	Permanent Secretary	MONRE	MAY 24, 2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Andrew Hudson UNDP/ GEF Officer-in-Charge		March 1, 2013	Faris Khader Regional Technical Advisor, EITT	+66 2304 9100 ext 2756	faris.khader@undp.org