REQUEST FOR MSP APPROVAL (1-STEP PROCEDURE)

TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	GEF UNIDO Cleantech Programme for SMEs in Thailand		
Country(ies):	Thailand	GEF Project ID:[1]	5800
GEF Agency(ies):	UNIDO	GEF Agency Project ID:	130312
Other Executing Partner(s):	Department of Industrial Promotion (DIP) under the Ministry of Industry; National Science and Technology Development Agency (NSTDA)	Submission Date: Resubmission Date:	04-14-2014 06-04-2014
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36
Name of parent program (if applicable):		Agency Fee ($):	173,500

A. FOCAL AREA STRATEGY FRAMEWORK[2]:

Focal Area Objectives	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
CCM-1 Technology Transfer: Promote the demonstration, deployment, and transfer of innovative low-carbon technologies.	GEFTF	1,826,500	4,200,000
Total Project Cost		1,826,500	4,200,000

B. PROJECT FRAMEWORK

Project Objectives: The project aims at promoting clean energy technology innovations[3] and entrepreneurship in selected SMEs in Thailand through cleantech innovation platform and entrepreneurship acceleration programme.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount ($)	Cofinancing ($)
1. National Cleantech Platform to promote clean technology innovations and business models in SMEs in Thailand	TA	1. A national level mechanism / platform established to promote clean technology innovations and entrepreneurship; clean energy technology innovators identified, coached and supported during and beyond the Cleantech competition.	1.1. SMEs associations and national agencies involved in promoting clean technology innovations mobilized and a coordinating platform at the national level established 1.2.Two-three annual Cleantech business competitions held and accelerator established across selected SME clusters covering four clean energy categories (Energy Efficiency, Renewable Energy,	GEF TF	820,000	2,000,000

[1] Project ID number will be assigned by GEFSEC.

[2] Refer to the reference attached on the Focal Area Results Framework and LDCF/SCCF Framework when filling up the table in item A.

[3] The Global Cleantech Innovation Index 2012 Report identifies innovations, specifically innovation entrepreneurs, as "companies introducing incremental innovations; those transferring technological applications from one industry or geography to another; and those presenting business model innovations. Completely new science and technology breakthrough companies are rare, though they do exist".

			Waste to Energy and Water Efficiency) 1.3. Extensive advocacy and outreach activities organized at the national level, and willing provinces and SME clusters identified for participation in the Cleantech platform			
2. Institutional capacity building for clean technology innovations	TA	1. National institutional capacity built for mentoring and training programmes for clean technology innovations as part of the competition and accelerator programme.	2.1. Capacity building of national institutions and industrial associations to host and support the Cleantech programme, including training of trainers on entrepreneurship start-ups, knowledge management, benchmarking of technologies and information on best practices 2.2. Mentor Program launched and at least 100+ mentors identified and trained 2.3. Intensive Training Seminars, Corporate and Public Private Partnership Forums held and knowledge/best practice exchanged with other Cleantech programme countries	GEF TF	500,500	1,333,000
3. Policy and regulatory framework strengthened for scaling up of Cleantech competition, innovation and acceleration activities across Thailand	TA	1. Policies and institutional framework strengthened to promote and support clean technology innovations in SMEs.	3.1. Necessary policies and regulations required for the promotion and support of the clean technology innovations identified and developed; such as eligibility, intellectual property right protection, sponsorship agreements, etc 3.2. Regional stakeholder meetings held and partnerships	GEF TF	270,000	400,000

			developed with leading institutions, agencies and universities			
4. Monitoring and Evaluation Management	TA	1. Adequate monitoring of all project indicators together with regular evaluations to ensure successful project implementation	4.1. Mid-term and final project review/evaluation conducted 4.2. Documentation of best practices and dissemination	GEF TF	70,000	85,000
Subtotal					1,660,500	3,818,000
Project Management Cost[3]				GEFTF	166,000	382,000
Total Project Cost					1,826,500	4,200,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
GEF Agency	UNIDO	Grant	70,000
GEF Agency	UNIDO	In-Kind	130,000
National Government	Department of Industrial Promotion (DIP) under the Ministry of Industry	Grant and In-Kind	2,500,000
National Government and Others	National Science and Technology Development Agency (NSTDA)	Grant and In-Kind	1,500,000
Total Cofinancing			**4,200,000**

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources						

[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.

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Cofinancing ($)	Project Total ($)
International consultants	180,000	200,000	380,000
National/Local consultants	240,000	360,000	600,000
Total	**420,000**	**560,000**	**980,000**

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. PROJECT OVERVIEW

A.1. PROJECT DESCRIPTION. BRIEFLY DESCRIBE THE PROJECT, INCLUDING ; 1) THE GLOBAL ENVIRONMENTAL PROBLEMS, ROOT CAUSES AND BARRIERS THAT NEED TO BE ADDRESSED; 2) THE BASELINE SCENARIO AND ANY ASSOCIATED BASELINE PROJECTS, 3) THE PROPOSED ALTERNATIVE SCENARIO, WITH A BRIEF DESCRIPTION OF EXPECTED OUTCOMES AND COMPONENTS OF THE PROJECT, 4) INCREMENTAL COST REASONING AND EXPECTED CONTRIBUTIONS FROM THE BASELINE , THE GEFTF, LDCF/SCCF AND CO-FINANCING; 5) GLOBAL ENVIRONMENTAL BENEFITS (GEFTF, NPIF) AND ADAPTATION BENEFITS (LDCF/SCCF); 6) INNOVATIVENESS, SUSTAINABILITY AND POTENTIAL FOR SCALING UP.

In 2011, the United Nations Industrial Development Organization (UNIDO), with the support of the Global Environmental Facility (GEF) and the Government of South Africa, successfully implemented the 'Greening the COP17' project. One of the four components of the project focused on the design and implementation of the first South Africa Clean Technology Competition (2011 SA Cleantech) for green entrepreneurs and small and medium-size enterprises (SMEs) with innovative ideas and concepts in the areas of energy efficiency, renewable energy and green building practices. The competition was coordinated by the Department of Trade and Industry (the dti) through the National Cleaner Production Centre of South Africa (NCPC-SA), in cooperation with the Department of Environmental Affairs (DEA), the Council for Scientific and Industrial Research (CSIR), the Technology Innovation Agency (TIA), etc. All participants were given the opportunity to present their products on energy efficiency, renewables and green buildings and get feedback, while the best went to receive additional training, mentoring and access to Cleantech networking events. The success of the project, which attracted a wide range of private-sector interest, identified 24 semi-finalist companies and 3 winners across three categories, has allowed it to go into a second phase in 2013.

This success also saw the project expand into other countries in 2013, namely Armenia, India, Malaysia, Pakistan and Turkey, Russia and Thailand are also expected to join in 2014. National competitions in the countries participating should be under way by the end of the second quarter of the year with up to an estimated 150 entrants from each country. Around 25-50 should then go on to get support through the accelerator programme from which 10-15 finalists will be selected, with the best from each country expected to compete at a global level. The winning ideas will be put forward into a global competition where they compete ultimately for a global prize and are able to connect with potential partners, customers and investors. Funding will be for a period of three years with the competition cycle expected to take place two to three times.

Building on this initial success and the lessons learned, and taking into account the increased need to accelerate the pace of clean energy technologies innovation and adoption globally, the GEF and UNIDO have agreed to develop a global flagship Cleantech programme. The global Cleantech programme is in line with the GEF Council's Revised Strategy for Enhancing Engagement with the Private Sector, Modality 3, namely " SME Competition Pilot: Encouraging Entrepreneurs and Innovators." This strategy, in particular, provides support to entrepreneurs and innovators seeking to establish commercial ventures in the field of clean technologies.

A.1. 1) The global environmental problems, root causes and barriers that need to be addressed

Thailand is the world's 24th largest carbon polluter based on statistics of the World Resources Institute. The Thailand Energy Statistics from 2012 has reported an increase of 3.9% of the final energy consumption amounting for 215 million t CO2e[4].

[4] http://www.dede.go.th/dede/images/stories/stat_dede/report12/%202555_1.pdf

The industrial sector contributed the greatest share of 36.7% to the total energy consumption in 2012, followed by transportation sector (35.8%), residential sector (15.1%), commercial sector (7.2%) and agricultural sector (5.2%).

However, as the result of the new Alternative Energy Development Plan (AEDP: 2012-2021), National Energy Conservation Plan of 2010-2030 and the Thai Government's policy on energy efficiency the use of domestic alternative energy has increased by 14.3% in 2012, which accounts for 9.9% of the total final energy consumption, and energy intensity has decreased by 1.1% since 2005.

The obvious challenge for Thailand is therefore to mitigate its GHG emissions without hampering its economic development. Being a member of the United Nations Framework Convention on Climate Change (UNFCCC), it recognizes the need to delink the development from fossil fuels, to lower the import costs, to diversify the sources of energy utilization, to cut down the GHGs emissions and to seize the opportunities brought about by short-term energy price shocks and long-term energy scarcity.

Small and medium-sized enterprises (SMEs), which amount to approximately 2.6 million, contribute significantly to the overall development of the Thai economy, accounting for over 36% of the country's GDP and 83.89% of the national workforce[5]. According to ISMED's primary survey and analysis of SMEs, most of them spend around 16-25% of their total production cost for energy requirements alone (around 90% attributed to heat generation and 10% to electricity). The Ministry of Industry definition of SMEs, by Ministerial regulation issued in 2002, is shown below.

Table 1: Definition of SME in Thailand[6]

Industry	**Small Enterprise**	**Medium Enterprise**
Manufacturing Industry	Enterprise which corresponds to any of the following**;** with employees of up to 50 or with assets of up to 50 million bahts.	Enterprise which corresponds to any of the following; with 51－200 employees or with assets of no less than 50 million bahts and up to 200 million bahts.
Wholesale Industry	Enterprise which corresponds to any of the following; with employees of up to 25 or with assets of up to 50 million bahts.	Enterprise which corresponds to any of the following; with 26－200 employees or with assets of no less than 50 million bahts and up to 100 million bahts.
Retailing Industry	Enterprise which corresponds to any of the following; with employees of up to15 or with assets of up to 30 million bahts.	Enterprise which corresponds to any of the following; with 16 – 150 employees or with assets of no less than 30 million bahts and up to 60 million bahts.
Service Industry	Enterprise which corresponds to any of the following; with employees of up to 50 or with assets of up to 50 million bahts.	Enterprise which corresponds to any of the following; with 51 – 200 employees or with assets of no less than 50 million bahts and up to 200 million bahts.

In general, the Thai economy has been based on industrialization strategy, liberalized trade, and investment policies. As a result, the country was able to meet most of the Millennium Development Goals (MDGs) at the national level and is now preparing to go beyond that[7]. With promotion of clean energy technology innovations and organization of the national innovation and acceleration programmes for SMEs, Thailand will not only support SMEs in entering the ASEAN Economic Community (AEC), but also achieve and go beyond its development targets.

[5] White Paper on Small and Medium Enterprises of Thailand in 2011 Trend of 2012
[6] Exchange rate of the local currency (Thai Baht) per US Dollar (07.03.2014): 32.5900 THB/USD
[7] http://www.undp.or.th/resources/documents/Thailand MDG Report 2009.pdf retrieved on June 28, 2011.

Currently, there is a lack of policies or regulatory frameworks to promote clean energy technology innovations. Although Thailand has established some policies to promote renewable energy and energy efficiency in order to reduce its dependency on oil imports, most policies are not focused on innovations for SMEs innovators and entrepreneurs. To deal with rising oil prices, the Thai government should create and modify policies and programs in order to increase efficiency for energy usage, promote renewable energy and waste to energy.

In order for Thailand to be able to successfully organize the national innovation and acceleration programmes for SMEs, there are many barriers which need to be addressed on priority:

1. There is lack of technology innovation platforms specifically tailored for and targeted to clean energy technologies and to SMEs;
2. There is low contribution and dynamism of SMEs in clean technologies innovation and relevant market transformation and economic growth;
3. There is limited awareness of financial schemes, requirements and procedures to access financing for clean energy investment projects and limited government financial incentives to support industrial enterprises in the uptake of innovation in clean energy technologies;
4. There is lack of trained experts for mentoring startups and entrepreneurs actively involved in cleantech innovations;
5. There is lack of coordination amongst sectoral players on market intelligence research;
6. There is lack of an enabling regulatory environment that actively supports innovations in SME clusters;
7. There is lack of examples and insufficient dissemination of success stories of SME led technology innovation, leading to persistent low attention to change and to high-risk/capability-gap perception.

The project will contribute, through its activities and continual engagements with the National Government, the private sector and other relevant stakeholders, to mitigating the above barriers in a holistic manner, promoting the development and deployment of clean energy technology innovations. It will also create a platform capable of linking Thailand entrepreneurs with investors, business, and commercial partners, potentially resulting in the commercialization of new products, manufacturers, services and ultimately job creation, all of which will stimulate economic growth in Thailand.

A.1. 2) The baseline scenario and any associated baseline projects

Baseline Scenario

Currently, there are no clean technology schemes available to identify the most promising entrepreneurs, promote innovations, provide adequate support and "de-risk" SMEs and new businesses in Thailand. Hence, this project will help SMEs to compete on the global market and connect them to potential investors, customers, and partners through the global Cleantech network. For 2013, the global Cleantech network accounts for 6 countries, including Malaysia, India, Armenia, South Africa, Turkey and Pakistan, with the Russian Federation under development. The flagship programme has the potential to create an extensive network of clean energy entrepreneurs originating from countries participating in this global programme.

In addition to connecting SMEs with international investment networks, close coordination with the ongoing GEF UNIDO Cleantech Programme for SMEs in Malaysia will be sought. Such cooperation has

already been undertaken in the preparatory stage of the project, with DIP attending the official launch of the Malaysia Cleantech Competition in October 2013 as well as the Cleantech Intensive Training Programme organized by UNIDO in partnership with the Cleantech Open in March 2014. This close cooperation at the regional level will continue, with Thailand's Cleantech Programme intending to capitalize on any regional workshops or events to be organized by the Malaysian counterparts. In addition, Thailand's Cleantech Programme intends to actively participate and capitalize on any regional workshops or evens to be organized by the Malaysian Cleantech Programme.

Baseline Project

The GEF project will build on the following baseline projects, initiatives, existing financial schemes and funds:

The "Green Industry Initiative" (GII), introduced by the Thai Government in 2011, aims to stimulate sustainable growth of the industrial sector in accordance with ecology and social well-being[8]. The Green Industry Promotion and Development Office (GIPO), under the Ministry of Industry (MoI), is directly responsible for this initiative. It encourages the manufacturing enterprises to continuously improve their climate friendly production processes and environmental management. MoI aims to get 70,000 enterprises certified as Green Industry by 2018. There are around 2,675 certified organizations[9] under the GII program (as of Jan 2013).

The Department of Industrial Promotion (DIP), under the MOI, is the main organization responsible for proposing the country's measures and policies for enhancing SME entrepreneurs. The mission of DIP is: (i) to promote, support and develop SMEs to be able to compete in the global market and to enter the ASEAN Economic Community (AEC); (ii) to support innovative and environmentally friendly technologies in accordance with the MoI's Green Industry policy.

Promotion and development of clean energy technology innovations will not only support the MoI's policies by assisting the country in the development of industries, but will also ensure environmental sustainability. In turn, the GEF project will assist Thailand in promoting clean energy technology innovations and entrepreneurship in SMEs through a Cleantech innovation platform and entrepreneurship acceleration program.

UNIDO's Industrial Energy Efficiency project (2010-2016) is funded by the GEF and supported by the Department of Industrial Promotion (DIP), the lead agency of the project. The goal of the project is to introduce a National Energy Management Standard in Thailand and incorporate industrial energy systems optimization into the existing mechanisms.

The proposed project will collaborate and seek advice from the partners network established during the preparatory assistance carried out in 2011for UNIDO's initiative entitled "Expansion and scaling-up of the application of Resource Efficient and Cleaner Production (RECP) in the ASEAN Region". The RECP initiative aims at promoting the transition towards sustainable industrial systems in developing countries and economies in transition.

The potential partners from the RECP initiative include, but are not limited to, the following: (i) Federation of Thai Industries (FTI) – accounts for more than 7,600 members from the business sector and whose membership is composed of 79% SMEs and 21% larger companies; and (ii) Thailand Environment Institute (TEI) – a non-profit NGO which works closely with different groups of organizations on

[8] This initiative rewards the environmental friendly firms by certifying with 5 levels of green industry mark as follows: Level 1 - Green commitment; Level 2 – Green Activity; Level 3 – Green System; Level 4 – Green Culture; Level 5 – Green Network (Green Supply Chain). For further details please refer to http://www.greenindustrythailand.com/en/content.php?pagename=condition

[9] http://www.greenindustrythailand.com/en/content.php?pagename=factory_map

environmental issues and conservation of natural resources to achieve sustainable development and a better quality of life.

Thailand Sustainable Energy Finance Program (started in 2009 with a budget of around USD 30 Million), by International Finance Corporation (IFC), World Bank under their Clean Technology Fund is currently ongoing. The program aims to help Thailand address its climate change challenges by making a major contribution in three critical areas: a) Increasing private sector involvement in the development and financing of EE/RE/energy service company (ESCO) investments, b) Supporting EE market transformation, by developing EE/RE/ESCO investments and providing new clean energy technologies and energy efficient equipment in Thailand's large corporate, SME, commercial, residential and municipal sectors, and c) Enhancing energy savings by raising market awareness of benefits to induce new clean technology and to reduce GHG emissions[10]. This program is implemented through DEDE. It also encourages financial institutions in Thailand to develop financing programs for small sized carbon mitigating investments such as EE projects and small-scale RE investments[11].

Incentive Programmes for Solar Thermal Technology. This programme has been running since 2008 and the Thai Government has plans to operate this incentive scheme until 2022. The sixth and final phase from 2013 to the year 2022 has a target of 25,000 m^2 of solar thermal collector area[12]. Incentive allocation for the sixth phase is set around USD 2.6 million. In 2011 and 2012, grants for a total of 21,034 m^2 of collector area were distributed. According to DEDE, the majority of the subsidy receivers were from industries, followed by hotels, farms and hospitals. However, SMEs have so far shown very little interest in gaining access to this fund, mainly due to lack of confidence in the RETs.

In addition, to the above baseline projects, the 2011 South Africa Clean Technology Competition under the "Greening the COP 17" project as well as the new Cleantech projects approved in 2013 have created some achievements and bases upon which the Thai project will further develop, such as: awareness, sponsors approach, support materials (e.g. competition and training schedules, eligibility requirements, applications, competition rules, handbooks for applicants, mentors and judges, best practice case studies for training programmes), global branding and Cleantech website.

A.1. 3) The proposed alternative scenario, with a brief description of expected outcomes and components of the project

GEF Project Alternative Scenario

The proposed alternative scenario would be the implementation of the GEF UNIDO Cleantech Programme for SMEs in Thailand. The project is part of the UNIDO/GEF global initiative that seeks to promote innovative environment friendly clean energy technologies in small businesses and SMEs – see brochure in Annex C. The project is in line with National Policies in Thailand and the GEF focal area priorities. Clean energy technologies developed and promoted as a result of the innovation competition and the accelerator programme will lead to reductions in overall national GHG emissions, and will contribute to Thailand's sustainable green growth thereby addressing a global issue of climate change and national issues of energy security, employment creation and competitiveness of SMEs etc.

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[10] http://www.climateinvestmentfunds.org/cifnet/sites/default/files/Thailand%20Sustainable%20Energy%20Finance%20Program%20-%20Approved.pdf

[11] https://www.climateinvestmentfunds.org/cifnet/project/thailand-sustainable-energy-finance-program\

[12] Information Workshop: Solar Thermal Technology in Thai Businesses and Industries. Incentive Programmes for Solar Thermal Technology in Thailand, Department of Alternative Energy Development and Efficiency (DEDE) Thailand's Ministry of Energy, March 2013

Project Approach

The project will primarily aim to promote an innovation ecosystem in Thailand by: (i) assisting the identification and early stage nurturing of the most promising innovative local clean energy technologies; (ii) coordinating various existing and planned national programmes, funds, competitions etc. relating to the promotion and development of clean energy technologies, and providing pre-selected candidates and applicants for them; and (iii) global networking the most promising start-ups of Thailand with mentors and potential business partners abroad. The project is expected to accelerate the establishment of innovative clean energy technology SMEs and new businesses in Thailand and can act as an effective catalyst to boost more vigorous implementation of the larger baseline projects and programmes.

The project will adopt an inter-disciplinary approach involving SMEs, national ministries and institutions, academia and research centres, industrial associations and financing institutions, foundations, venture capitals and utilities etc. within Thailand and abroad to promote innovative technologies in selected energy intensive SME clusters across the country. The project will closely coordinate with other similar/relevant national and international efforts, as it is critical to maximise synergies and share knowledge and best practices that can help in enhancing SMEs and new businesses' contribution towards climate change mitigation while increasing productivity and generating growth and wealth. The project will look for establishing formal collaboration with the Climate Technology Centres Network (CTCN).

The direct involvement of The Cleantech Open will ensure, on the one hand, Thai investors' confidence in the quality and chances of success of the clean technologies solutions, start-ups and business ideas that will emerge from the national competition selection process; this in the light of almost 10 years of experience and successful track records, and a brand that is recognized and trusted internationally by investors in clean technologies and start-ups. On the other hand, the direct involvement of The Cleantech Open will ensure the immediate integration of the GEF-supported Thai Cleantech Platform and SMEs/start-ups in a global network of clean technologies developers and investors, with subsequent substantial benefits in mobilizing investments and accelerating the establishment in the market.

Project Description

The project, in addition to creating an enabling policy environment and institutional capacity, will also assist Thailand in the establishment of a supportive innovation ecosystem through the organization of two to three annual competitions with associated accelerator programmes. It is expected that each competition will have around 100+ entrants. From these entrants, around 40-50 semi-finalists will be selected and will receive support through the accelerator programme as described hereunder. About 10-15 finalists will then be selected to receive further support as part of the accelerator programme. From these finalists, winners and runners-up will be selected. The selection of winners, runners-up, and finalists will be made by various judge panels based on their evaluation of the business plans or pitches submitted by the finalists and semi-finalists receiving support from trainers or mentors. The numbers of entrants, semi-finalists, finalists, winners and runners-up will vary from year to year, depending on the number of technology categories to be covered, maturity of the organization team, price categories, etc.

The promotion of clean energy technology innovations[13] and entrepreneurship in Thailand through Clean Energy Innovation and Entrepreneurship Acceleration Programme is envisaged through the following four components discussed in detail below:

[13] The proposed project will initially limit its focus to clean energy technologies, however the intention is to build upon this success and in the future expand into other sectors.

Component 1 – National Cleantech Platform to promote clean technology innovations and business models in SMEs in Thailand

1.1 SME associations and national agencies involved in promoting clean technology innovations mobilized and a coordinating platform at the national level established

In Thailand, it is proposed to set up a National Cleantech Platform at the national / province level that will organize an annual competition to identify innovators within SME clusters, facilitate mentoring to link up with global value chain and set up a more complete accelerator, modeled on the Cleantech Open in the United States and similar programmes in other parts of the world. UNIDO and other key institutions will partner to design this program in Thailand keeping in view local conditions and needs.

In addition, competition and accelerator guidelines will be adapted in conjunction with stakeholders that would include a schedule, eligibility requirements, selection and identification criteria for the participants, competition rules, and handbooks for applicants, mentors and judges. When developing the guidelines, the successful experience with the 2011 South Africa Cleantech Competition will be leveraged, alongside the experience of the Cleantech Open and similar programmes in other countries. The level of innovation sought by the competition will be specified during the development of the selection criteria and guidelines as mentioned above. The national definition of SMEs (see page 6) as well as the definition for innovation companies (see footnote 3) will be incorporated into the selection criteria.

1.2 Two to three annual Cleantech business competitions held and accelerator established across selected SME clusters covering four clean energy categories (Energy Efficiency, Renewable Energy, Waste to Energy and Water Efficiency)

In the initial phase, the clean energy technology categories will be: Energy Efficiency, Renewable Energy, Waste to Energy, Water Efficiency.

It is mentioned that while during the GEF project implementation period focus would be limited to four clean energy technology categories, the competition and accelerator programme platform will be established with a view to become easily extendable to additional clean energy technology categories. Although there may be value in doing so care will be taken when adding new categories to maximize impact under the project. There is much benefit in standardizing categories, as it would enable effective judging, benchmarking and the sharing of mentors. A specific need to stimulate innovations in a specific area might be best served not by a new category but by a new prize that would extend across all categories and applicants, or within a given category. For instance, the project would strive to create a specific prize category for best women contestant/entries, or specific criteria will be formulated to promote jobs for women or create more opportunities for women entrepreneurs etc. The opportunity for additional prizes[14] will be defined after further discussions with local partners and national stakeholders, but currently four prizes have been defined beyond the main competition awards:

Prize	Description
Category	Overall winner in one of the four competition categories
Sustainability	Finalist with the most effective integration of sustainability into their business model and operations
Technology prize	Semifinalist team with the clean technology

[14] Additional prizes might include: Best use of Information Communications Technology; Best Support for Climate Change Adaptation. Consideration will be given also to the creation of a gender related prize.

	that offers the greatest potential to recycle, reuse and reduce
University prize	Most promising entry in the competition developed from a university based team (students, researchers or faculty) linked with enterprises

1.3 Extensive advocacy and outreach activities organized at the national level, and willing provinces and SMEs clusters identified for participation in the Cleantech platform

Outreach activities will begin in 2014 to raise the profile of the competition and accelerator, and the potential for clean technologies to benefit SMEs and small businesses as a whole. Activities will include briefing sessions, press releases, social media activity and advertising. The mix of these activities will vary in line with local conditions and target audiences; special attention will be given to reach out and attract participation of women entrepreneurs and researchers. Outreach activities will be supported by the local entrepreneurs, celebrities and/or earlier participants involved in similar programs or competitions. Outreach partners will include service providers (e.g. patent attorneys, accountants etc.), university departments and societies, including engineering, entrepreneurship and energy clubs, and organizations that are in frequent contact with entrepreneurs across numerous clean technology sectors (e.g. trade groups, entrepreneurship groups, inventors clubs, etc). Investors (e.g. venture capital funds, angel networks[15], etc) are an additional source of potential applicants due to their large networks and aligned interests. Importantly, outreach will provide not only an opportunity to find potential competition and accelerator participants but also means to change awareness of clean technologies, climate change and the role of entrepreneurs.

Component 2 – Institutional capacity building for clean technology innovations

2.1. Capacity building of national institutions and industrial associations to host and support the Cleantech programme

To ensure the long-term growth of the Cleantech competition and accelerator in Thailand and to support Cleantech startups and foster a vibrant and sustainable Cleantech ecosystem through partnerships and collaboration, partners and stakeholders including staff of National Associations of SMEs will be trained on best practices for management of the Cleantech platform. Capacity building initiatives, among others, will include training of trainers on entrepreneurship start-ups, knowledge management, benchmarking of technologies, and exchange of information on best practices, and coordination mechanisms; specific focus will be placed on successful women entrepreneurs and participants. Activities within this work stream will include participation at the Global Cleantech competitions and meetings, which brings together competition hosts and partners from around the world to share best practices and experiences.

2.2. Mentor Program launched and at least 100+ mentors identified and trained

The Cleantech mentor programme would aim at maximizing every participant's chances of winning the business competition, of raising investment capital and of achieving sustainable commercial success. The mentoring programme consists of both mentoring methodology and training developed. Each semi-finalist team will be matched with one "generalist mentor" and multiple "specialist mentors" based on mutual areas of interest and proper matching of team needs and mentor strengths.

Generalist Mentors - A generalist mentor is the general coach, guide and advisor for the team, typically with extensive cleantech or startup experience. Often, generalist mentors are serial entrepreneurs and

[15] Angel networks are made up of angel investors, defined as individuals that provide capital to start-up businesses, that pool research and investment capital in order to achieve a broader scope.

active investors who often become trusted advisors to and investors in the company once the competition has concluded. Mentors are unable to join or invest in a mentee company during the competition cycle.

Specialist Mentors – A specialist mentor is an expert in a key functional discipline such as finance, marketing, engineering or law. They act as on-call subject matter experts and may be from both large corporations and startups.

In 2014-2015, up to 50+ mentors will be identified and trained using international best practices, methodologies and tools. Special efforts will be made to involve women entrepreneurs and mentors in the programme. Training sessions will be online and in-person. Mentor development activities will begin in 2014 in conjunction with competition outreach activities. The intention is that at least 100+ mentors will be trained, certified and engaged before the competition launches for the third year in 2016.

2.3. Intensive Training Seminars, Corporate and Public Private Partnership (PPP) Forums held and knowledge/best practice exchanged with other Cleantech programme countries

It is vital that more seed stage investors are brought into the ecosystem to support the growing number of companies launched through the Cleantech process and supported through the accelerator. This will be achieved by bringing entirely new investors into SME sectors, and encouraging existing technology investors to invest at much earlier and potentially riskier stages. Both groups will be supported through the dissemination of best practices from investors from around the world including case studies, new tools and organizations (e.g. formation of angel investor groups). Special attention will be given to design and undertake activities that would involve women entrepreneurs more actively in seminars and investment group meetings.

The Training Programme will begin once the semi-finalists are announced and run through to the final judging process. The goal is to educate and enable the semi-finalists to become successful businesses. Attendance in each portion by at least one team member is highly encouraged. All semi-finalist teams participate in the following with their assigned mentors in the following events: Cleantech training seminar; Special Topic Seminar; Business Clinics; and Practice Judging.

The Cleantech training seminar will be an intensive, extended long three-day program for competition semi-finalists. The training is intended to address all aspects of the business model and investor pitch. The end goal is an effective business strategy and a succinct, clear pitch, so that each semi-finalist company/team emerges from the competition and accelerator with the best shot at success. The programme would allow for instructional learning from a lecture format tied closely with a hands-on approach, group exercises and activities. Semi-finalist companies build an Action Plan as they progress through the seminar. This plan would serve as a guide for their work following the training and leading up to the final submission deadline. All presentations, slides and other material are supplied to the semi-finalists for future reference. Each team works in small non-competing groups with its assigned mentors, student interns and sustainability mentors. There is plenty of time for networking and team building built into the curriculum at the end of each day. Semi-finalists are also given access to Specialist Mentors (subject matter experts) for more information in a "speed dating" event. The presenters are also available to all semifinalists outside their presentations. Regarding online training sessions, registration would be free and all semi-finalists will be encouraged to participate. However, there would be various stages/phases to qualify for the final stage.

To assist semi-finalist companies in making connections to potential investors and partners, half-day PPP Forums will be held at partner corporations and government agencies to highlight opportunities for investment, loans, grants, technology adoption and partnerships. The intention is to assist as many semi-finalist companies as possible to raise funding (grant and equity), find customers, and build partners within 12 months of completing the competition.

Component 3 – Policy and regulatory framework strengthened for scaling up Cleantech competition, innovation and acceleration activities across Thailand

3.1. Necessary policies and regulations required for the promotion and support of the clean technology innovations identified and developed

The project will assist in reviewing existing policies and regulations relating to the promotion of clean energy technologies, innovation and entrepreneurship to identify those that need to be developed and/or improved, especially from the perspective of encouraging and supporting increased engagement and participation of SMEs. The related policies and regulations can be those promoting the clean energy technologies of the selected categories in SMEs, as well as those governing the protection of intellectual property rights, agreements on sponsorships, roles, responsibilities, and rights of different stakeholders involved in the Cleantech Competition/Accelerator (competition organizer and entrants, sponsors, mentors, judges, etc.). Special efforts will be made to formulate policies that would aim at involving women entrepreneurs and mentors in the Cleantech programme.

3.2. Regional stakeholder meetings held and partnerships developed with leading institutions, agencies and universities

As part of the growth of the Cleantech process and accelerator across Thailand, meetings will be held with key stakeholders, partners and SMEs associations in many regions. The focus on the meetings will be on communicating successes with the pilot competition in Thailand in 2014-16 and establishing roles and commitments going forward.

Online social media activity, media campaigns and/or events will also improve awareness amongst potential entrants, volunteers and mentors in the country.

Leading universities and institutions in Thailand such as Industrial Technology Assistance Program (ITAP) under National Science and Technology Development Agency and Cleaner Technology and Eco-Design Research Unit in Kasetsart University could be an excellent source of new clean energy technologies, emerging entrepreneurs and additional team members. A partnership may consist of supporting entrepreneurship education in these universities (with a focus on clean energy technologies), developing case studies and co-hosting events. The aim is to have the universities encouraging and facilitating their students and graduates to enter the Cleantech accelerator programme. Special efforts will be made to involve women faculty, students and researchers in the programme.

A.1. 4) Incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

GEF resources are being requested to provide technical assistance for the promotion of clean energy technology innovations and entrepreneurship in Thailand through the GEF UNIDO Cleantech Programme for SMEs. The GEF intervention is sought to foster innovative technologies that can help in the scaling up of clean energy technologies for fueling green growth in Thailand. The project aims to provide a focused approach in promoting innovation in clean technologies with a special focus on Energy Efficiency, Renewable Energy, Waste to Energy and Water Efficiency. The proposed GEF project will have an emphasis on promoting innovation in the energy and climate change dimension.

The promotion and adoption of innovations in clean technologies in Thailand will have lasting positive effects for the global environment as it will allow tackling of environmental problems at the source by simultaneously avoiding or reducing pollutant emissions and the optimum use of energy and natural resources. The focus of the project on engaging with SMEs and boosting their contribution and participation in clean technology innovations, will further contribute to generate substantive and long-

term benefits to the global environment as SMEs represent a key driver of economic activity and thus energy consumption and CO2 emissions.

In the absence of the GEF intervention it is likely that the increased growth would strain the system and lead to an increased reliance on conventional energy sources. Without the GEF support to this project, SMEs will continue to play a minor role in driving the development of clean technology innovations, unable to increase their focus, ability and activities to mobilize the support available at the national and international level for creating business ideas around clean energy technologies and linking to a value chain approach.

A.1. 5) Global Environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF)

The long-term life cycle of the clean technology innovations introduced in the market and the strengthened and enlarged low-carbon culture advocated, will be reflected in GHG emissions reductions. The reduction achieved through the implementation of this project will be measured and quantified on the basis of the innovations marketed and their uptake. Given the nature of the project, the low-carbon products that will be introduced in the market and the high potential for replication of the project's activities, GHG reductions can be achieved beyond the project life and scope.

Estimation of Global Environmental Benefits:

Removing barriers is a key for enabling investment environment, based from the GEF Manual for Calculating GHG Benefit. It will exploit full economic potential leading to large GHG abatements in long term. The promotion and adoption of innovations in clean technologies will tackle climate change problems because of its lasting positive effects for the global environment.

In assessment of the Thai low carbon growth path and given the specific focus of the project on promoting innovations in clean energy technologies, a ten year horizon has been selected for estimating the **indirect** savings of GHGs.

The reduction potential has been calculated based on the Economic Intelligence Unit estimates, accounting for approximately 324.6 Mt CO2 eq by 2020. Given the cross-sectoral impact of the innovative clean energy technologies, the project can contribute to the savings estimated under the top-down approach. Thus, assuming the same data for 2023 as for 2020, it is estimated that with 0.25% and 0.5% as the lower and upper bound the emissions in the range of 811,500 t CO2 eq to approximately 1,623,000 t CO2 eq will be reduced over a 10 year period. The proposed GEF contribution of US$ 2,000,000 would result into a unit abatement cost (UAC) of US$ 2.46 per ton of CO2 and US$ 1.23 per ton of CO2 respectively.

A.1. 6) Innovativeness, sustainability and potential for scaling up

Keeping in view the high priority accorded to innovation of products and services, technology development and transfer, and capacity building of industry, including SMEs, as critical components of overall industrial strategy to address competitiveness of Thai industry as well as climate change and overall resource efficiency, the project will primarily aim at promoting an innovation ecosystem approach driven by incentives, to assist in the design of policy and institutional framework at the national level for promoting innovations in clean energy technologies in small businesses and SMEs in the country. The project will adopt an inter-disciplinary approach. Working with the Department of Industrial Promotion (DIP) the project will involve SMEs, federal and regional ministries and institutions, academia and research centres, industrial associations and other relevant organizations and initiatives. The project will closely coordinate with other similar international efforts, as it is critical to share and document best practices and knowledge that can help in enhancing productivity in SMEs and at the same time, mitigating climate change.

It is envisaged that the Thai institution hosting the Cleantech innovation competition and accelerator programme will be part of the international network of National Cleantech Platforms (NCTP). The cleantech innovation and business culture promoted and demonstrated through the project will give rise to more robust entrepreneurship and business propositions with greater investments mobilization success rates. As result of the successful demonstration and establishment within the GEF project duration of the Cleantech innovation competition and accelerator programme, it is expected that the Government of Thailand will extend and increase funding programs for technology innovation currently available to SMEs and small business and special focus on clean energy and environmental technologies will be introduced, helping in scaling up innovations in the field of green and clean energy technologies.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project and/or its preparation:

UNIDO is the implementing agency of the project, and is accountable for the GEF grant, and other funding resources to be provided by the Government and private sector. During CEO endorsement formulation process from April to October 2013, UNIDO has series of meetings with the Department of Industrial Promotion (DIP). There were two stakeholder meetings organized on 16 October 2013 and 25 October 2013 with the participants from UNIDO, DIP under the Ministry of Industry, Industrial Technology Assistance Program (ITAP) under the National Science and Technology Development Agency (NSTDA), Kasetsart University and the private sector. The results from these meetings were incorporated in this document.

The following table presents other key stakeholders involved in the execution of the project and their envisaged roles, however new stakeholders and their roles may be added during project implementation.

	Stakeholder	Envisaged role in the project
Executing Agency	Department of Industrial Promotion (DIP) under the Ministry of Industry	Department of Industrial Promotion, under the Ministry of Industry, will be the chair of the Project Steering Committee (PSC) and the lead executing agency during the project implementation. It is envisaged that the DIP will take lead in sustaining and expanding the Cleantech Competition and Accelerator programme after the completion of the present project.
Main Counterparts and Stakeholders	Industrial Technology Assitance Program (ITAP)	The Industrial Technology Assitance Program (ITAP), established under the National Science and Technology Development Agency (NSTDA), is an industrial technology support program for SMEs to help them meet the challenges in introducing technology-based products and processes. During the CEO endorsement development, ITAP participated in two stakeholders meetings, providing sustainable contribution to the development of the present project. Based on the services provided, namely industrial consultancy services, technical training and seminars, techno-business matching, provision of industrial and technology information and provision of linkages to other industrial service organizations, the project will work with ITAP in defining technology priorities within the competition categories and will be closely involved during the competition process and in the accelerator programme.

	National Science and Technology Development Agency (NSTDA)	The National Science and Technology Development Agency (NSTDA) is an agency of the government under the Thai Ministry of Science and Technology which supports research in science and technology and their application in the Thai economy. NSTDA consists of four National Research Centers which are Biotech, Mtech, NanoTech and NECTEC with a Technology Management Center. In addition, the organization has academia partnership with key public universities through Cleaner Technology Research and Education Consortium established under the Cleaner Technology Advancement Program (CTAP). Resulting from the concept and objectives of next generation of business leaders, the Business Incubator Center (BIC), an operating unit under the NSTDA, in collaboration with Smart Innovation Awards had created the programme "Young Entrepreneur of Innovative Technology". Operating from 2012, the programme objective is: (i) to create the next generation of business entrepreneurs by enhance the ideas to those with projects and ambition to have marketing possibility and have a more concrete and sustainable future in business; (ii) and to find "the best and the brightest thinker" or one with outstanding idea and project to be selected for the title "The Best Thinker, The New Innovator" and receive the Samart Innovation Awards. The project will strive to maximize collaboration with NSTDA as a source of potential technology innovations, competition participants as well as mentors and judges. In addition, NSTDA can provide the useful channels and networks to mobilize resources, disseminate information and best practices and further promote the cleantech competition and accelerator programme.
	Universities and/or Academic institutions	The source of new clean technologies, emerging entrepreneurs, knowledge network, applied research collaboration and additional team members. The project will also closely cooperate with the Cleaner Technology and Eco-Design Research Unit in Kasetsart University to encourage participation and increase awareness among university students.
	Gender Dimensions	Relevant women entrepreneurs, associations and gender focal points will be invited to participate in all activities of the project. The project will deliberately mobilize interest from women entrepreneurs by targeting the involvement of their associations in the project process. This will be done by taking into consideration the cultural context that exists in Thailand. That way, the project would adequately address the gender imbalances in SMEs and provide a solid basis for gender mainstreaming in clean technology innovations.

The project will have a Project Steering Committee (PSC), which will be chaired by the Department of Industrial Promotion (DIP), under the Ministry of Industry, and will provide strategic guidance, and supervise the project implementation. A Project Management Unit (PMU) will be established by UNIDO

and hosted by DIP. The Unit will be responsible for the daily management of the project implementation.

A.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).:

The project is expected to result in more Cleantech start-ups and small and medium-sized enterprises (SMEs) being identified and supported, thus acting as a catalyst for SME development and clean technology investment in Thailand. The creation of a dedicated national platform for promoting clean energy technology innovation in SMEs will result in an enhancement of human capital, thereby leading to job creation and poverty reduction. Furthermore, new job opportunities will also emerge, as the viable clean technologies shall commence local production and scale up innovations. Local development and production of new technologies will very likely entail lower costs, thus further benefiting both the technology developer and the technology end-user. Finally, the increased use of clean technology innovations supported by the project will result in a reduction in GHG emissions.

The Cleantech programme for SMEs will highlight the need for stronger support at the national level for clean technology innovations and SMEs' contribution. In particular, this programme will provide added value by better bridging the gap between clean technology innovators and investors, thereby paving the way for the creation of new business. The project will try to forge synergies between clean technology innovators and the international private sector that can invest in the subsequent commercialization of the technologies. It will also provide SMEs with attractive incentives to invest in innovation in clean technology in a relatively risk-free environment, with benefits for the economy as a whole. At the same time, the growing number of participants encourages cross-country networking and creates opportunities for South-South cooperation to further enrich the innovation ecosystem in participating countries.

Moreover, special effort will be made to involve gender groups as consultants, participants, entrepreneurs, mentors, etc. in all stages of project implementation. While it is planned that a minimum target share of trained women should reach approximately 30% of the total number of mentors/experts trained, a gender analysis will be carried out as part of the social assessment after the first six months of project implementation in order to sufficiently capture the gender dimension in the pipeline year and define the ways in which the project can achieve its gender-specific targets. Women entrepreneurs are expected to contribute to various project components and activities, participating in intensive training seminars, and providing technical assistance in organizing a successful competition, thus supporting gender mainstreaming.

The following gender specific targets will be monitored and evaluated throughout the project implementation period. Initially, the present project will take the below suggested approach to gender mainstreaming:

<u>Application stage</u>

- Collection of gender disaggregated data through application forms: No. of women-led enterprises, % of women in the applying team;
- Targeted outreach: The main target groups would be women engineers and business women; also important, would be the search for ways in which to bring the two groups together. From the 2nd year, the project will consider organizing events specifically targeted at connecting women technicians/engineers with business women;
- Setting a target on the % of women-led enterprise applications.

<u>Selection of women semi-finalists</u>

- Considering that the programme is less a competition and more an incubator of ideas, it is important to employ selection criteria that provide preferential opportunities to women. The rationale behind

this would be that due to pre-existing social structures, women may not have had the same opportunities as men to meet the selection criteria at the current stage. The objective would be to involve women in the mentoring process so that more role models could be created, thus mitigating the impact of this inequality in the future.

Engaging women mentors and judges

- Extra effort will be made to engage female mentors and judges, as well as encourage them to participate in trainings and other project activities.

Special Awards

- As mentioned earlier, special consideration will be given to the creation of a gender related prize; one option would be to establish a prize for the women's entrepreneur of the year or a special award for the team with the product/service with the most positive impact on gender equality, which then would be announced during the global cleantech competition involving all Cleantech countries concerned.

A.4 Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks:

The main risks, their rating and mitigation strategy for the project are listed below:

Risk	**Rating**	**Mitigation**
INSTITUTIONAL RISK (Lack of capable and relevant institutional partners for project execution and sustainability)	Low	The Department of Industrial Promotion (DIP), under the MoI, is the main organization responsible for proposing the country's measures and policies for enhancing SME entrepreneurs. As the executing and host partner under the project, the DIP is envisaged to take lead in sustaining and expanding the Cleantech Competition and Accelerator programme after the completion of the present project. During the first 6 months of the project implementation, UNIDO will directly approach other key relevant institutions and partners for the project to establish working relations and collaboration. UNIDO will also ensure that such key institutions/ partners will be also closely engaged in the project implementation process. Furthermore, the project has in the Cleantech Open US a key execution partner and sub-contractee of the project. The Cleantech Open US will bring to the project and its future Thai partner expertise, long-standing experience, methodologies and tools that have proven effective and successful in the US as well as in other countries. The project will work with the DIP and other Thai institutions (e.g. NSTDA) that have some or substantial experience in setting-up and operating technology competitions or competitive grant funding

		programs. A proper coordination will be sought through the Project Steering Committee (PSC) and ad-hoc working groups will be established if necessary.
INSTITUTIONAL RISK (Lack of interest by the public and industrial associations in participating in the Cleantech competition and accelerator programme as entrepreneurs and mentors, resulting in limited participation, or entries with low quality, especially in the first years)	Medium	Proper communication programmes will be prepared and implemented with adequate resources allocated to ensure effective and widespread communication of the Cleantech programme. Workshops will be carried out to support this. Effective support will be provided to innovative SMEs/entrants. User-friendly entry form will be prepared. Mentors will be identified through a stringent selection criteria and an assessment of their ownership of the competition shall be determined at an early stage.
FINANCING RISKS (Incentive and financial support system are insufficient)	Low	The promotion and outreach activities for the present project will have financing institutions, venture capitalists and angel investors as one key target group. The transfer of a branded, and recognized by investors, model such as the Cleantech Open, and the direct involvement of the Cleantech Open US experts in the execution of the project, aims to build stronger confidence of national and international venture capitalists and investors in the clean energy technology innovation investments proposed by the Thai Cleantech Platform. In addition, the direct involvement of the Cleantech Open US will give to the project direct access to the Cleantech Open global network of investors. The project will facilitate access by the Cleantech Competition semi-finalists and finalists to the different existing Government funded grant programs for SMEs' development and technology modernization and innovation. The Project Steering Committee will include at least 1 representative of financing institutions and investors.
POLITICAL RISK (Security issues due to the existing political situation)	Low	As the initial year of implementation will focus primarily on awareness raising and networking rather than competition organization, the political risks involved with local travel throughout Thailand will be minimal.

CLIMATE CHANGE RISKS	None	There is no climate change risk foreseen for the achievement of the project's objectives.

A.5. Explain how cost-effectiveness is reflected in the project design:

The implementation of this project will be closely coordinated with other related projects and initiatives in order to create synergies and avoid overlapping. In addition to the Project Steering Committees (PSC), working groups and other coordination mechanisms will be established when necessary to ensure the effective coordination. The National Project Manager is also the future competition programme Manager, and he/she will also act as the local consultant on clean energy technologies promotion and innovation.

UNIDO's Green Industry Platform will provide support in bringing key stakeholders together under the project, which will aim at coordinating efforts to support and encourage green growth amongst SMEs.

The project will closely link up with other UNIDO GEF projects in Thailand to promote clean energy technology innovations in Thai industries.

A.6. Outline the coordination with other relevant GEF financed initiatives [not mentioned in A.1]:

In addition to coordination with Cleantech projects in other countries under the global GEF UNIDO Cleantech programme and other concerned programmes and funds mentioned in A.1, project implementation will also be closely coordinated with other GEF projects under the climate Change Focal Areas in Thailand. For example, with the renewable energy project, namely "Greening industry through Low Carbon Technology Application for SMEs" that is currently being jointly developed by UNIDO, the Office of Small and Medium Enterprises Promotion (OSMEP), Ministry of Industry (MoI) and the Foundation of Institute for Small and Medium Enterprises Development (ISMED).

The proposed project will also coordinate closely, where relevant, with other national projects and initiatives:

- DEDE's ESCO Revolving Fund managed by Energy for Environment Foundation[16]
- Energy Efficiency for SMEs and Total Energy Management Project by Department of Industrial Works, MoI
- Greening Supply Chains in the Thai Auto and Automotive Parts Industries (SMEs) funded by EU SWITCH ASIA and the German Development Agency, GIZ
- Thailand Sustainable Energy Finance Program, CTF, IFC/World Bank

The project will also link up with UNIDO's Green Industry initiative to promote sustainable industrial growth. UNIDO believes that the consensus around the concept of a Green Economy can only be reached if developing countries are provided with concrete opportunities to participate in the global markets for environmental goods and services and if opportunities for sustainable development are created for them in the international system for a green economy. To that end, UNIDO's global initiative on Green Industry outlines policy frameworks, instruments and concrete examples of good practice measures and programmes that would support green industries and the greening of the existing industries in developing countries and economies in transition.

The Cleantech approach and methodologies adopted under the project will build on the Green Industry initiative, and will go a step further by focusing on innovative SMEs through an eco-system approach that will involve identifying startups, and nurturing, mentoring and incentivizing technological innovations to

[16] The fund promotes and supports potential entrepreneurs to invest in energy efficiency measures and renewable energy technologies. The funds offer 5 types of investment promotion, namely, equity investment, ESCO venture capital, equipment leasing, carbon credit facility, credit guarantee facility and technical assistance.

promote clean energy technologies and systems in selected SME clusters.

A.7 Describe the institutional arrangement for project implementation:

UNIDO is the only GEF Implementing Agency involved in this project and thus no specific arrangement with other GEF Agencies is required or envisaged.

As the GEF Implementing Agency, UNIDO holds the ultimate responsibility for the timely implementation of the project, the delivery of the planned outputs and the achievement of the expected outcomes. Execution of the project on the ground will be the responsibility of the Project Management Unit (PMU). The PMU will consist of the National Programme Coordinator (NPC) and a Project Administrative Assistant (PAA). The PMU, under the supervision of the UNIDO Project Manager and in close consultation with the Department of Industrial Promotion (DIP) and the National Science and Technology Development Agency (NSTDA), will be responsible for the day-to-day management of the project execution, monitoring and evaluation of project activities as in the agreed project work plan. The PMU will coordinate all project activities being carried out by project national experts and partners; advisory working group will be established when necessary.

The Project Steering Committee (PSC) will be established under the Chairmanship of the DIP. It is envisaged that the DIP will take leas in sustaining and expanding in the Cleantech Competition and Accelerator programme after the completion of the present project. Representatives from institutions involved in the different project components will be represented in an observer capacity. In addition, the project will have in the Cleantech Open a key knowledge partner under the project, which will be also subcontracted for the execution of certain activities.

The PMU will act as the Secretariat of the PSC. The PSC will provide strategic guidance according to national imperatives and market needs. A schematic representation of the project implementation arrangement is shown in Figure 1 below.

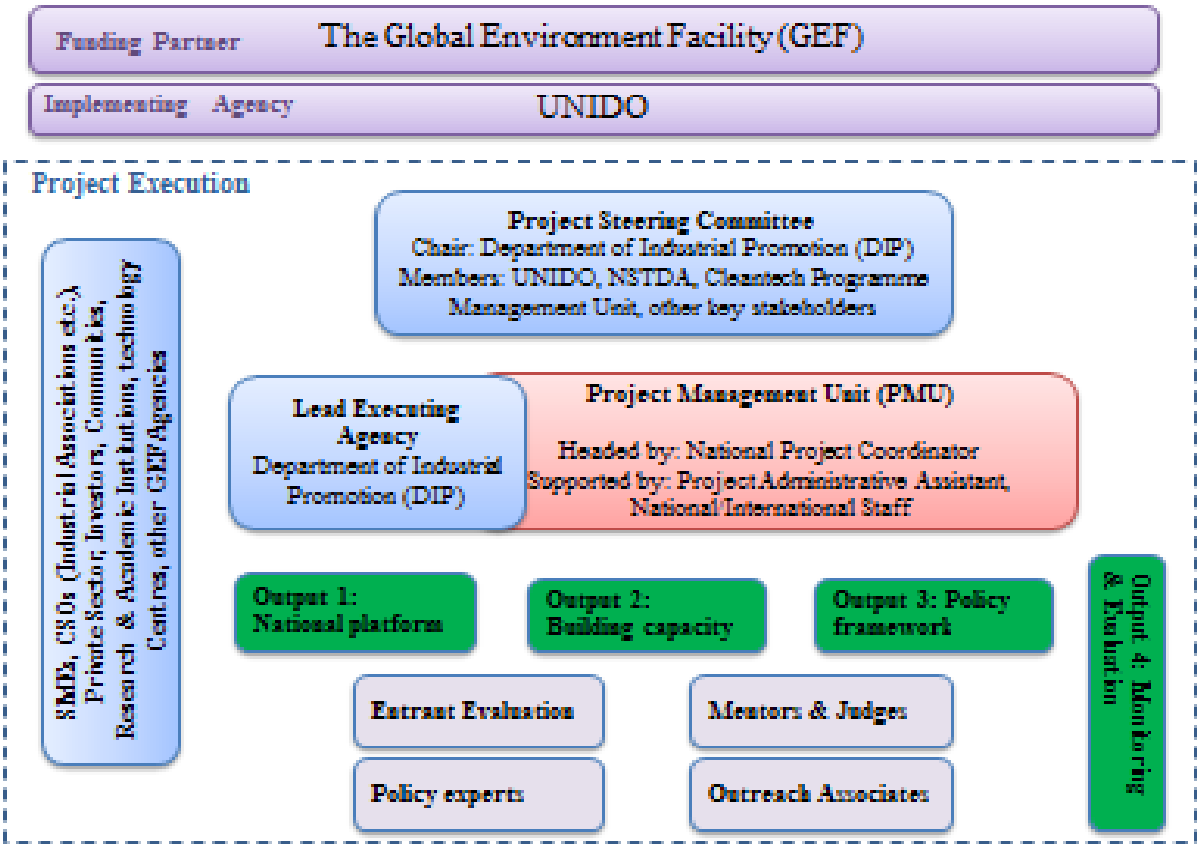


Fig 1: Project Implementation Arrangements

The PMU will be funded in part by the GEF budget as well as in-kind funding and co-financing from the project counterparts. During the implementation period of the project, UNIDO will provide the PMU with the necessary management and monitoring support.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, etc.

The project aims at raising awareness and changing mindsets about clean technology, while simultaneously creating opportunities for SMEs and entrepreneurs to find solutions for some of the most critical environmental and economic issues in Thailand. The Clean Technology innovation sector is an attractive sector to capitalize on the available opportunities and grow its contribution to both employment and economic growth, namely stimulate the green industry and economy in the country and ensure the sustainability of its ecosystems. This is to be achieved within:

Incentives, Guarantee and Protection under the Investment Promotion Act
The Office of the Board of Investment, a Government agency under the Ministry of Industry, has prescribed a few investment promotion policies under Investment Promotion Act B.E 2520 (1977) and the respective Amendment Act No.10 B.E 2552 (2009), and its Amendment B.E. 2554 (2011). This scheme, however, is not applicable for projects within Bangkok. Under the promotion policies, several project categories are mentioned, of which the following are related to renewable energy and waste to energy:

- Category 1.18: Manufacture of alcohol or fuel from agricultural products, including scrap, garbage and/or waste
- Category 7.1.1: Production of electricity or steam power for cases that use alternative energy such as energy from agricultural material, biogas and wind energy

The incentives that are offered under this policy includes import duty exemption on machinery; eight-year corporate income tax exemption without being subject to a corporate income tax exemption cap; fifty percent reduction of corporate income tax on net profit for five year after expiry of tax holiday; double deduction of transportation; electricity and water supply costs for ten years from the date of income derivation from promoted project and twenty five percent deduction of the cost of installation or construction of facilities in addition to normal depreciation deduction.

Energy Policy and Development Plan (2007 - 2021)
The Plan was approved by the Thai Cabinet in June 2007 for restructuring the energy industry management, ensuring security of energy supply and for promoting energy conservation and efficiency. The Plan prioritizes the promotion of alternative RE and its key objectives with respect to renewable and alternative energy are: (i) sustaining the purchase of power generated from RE (i.e., agricultural residues, industrial and municipal wastes, biogas, wind and solar energy), including the VSPPs; (ii) establishing a public organization to carry out the promotion of RE use; (iii) supporting research and development (R&D) on alternative energy that is sustainable, efficient and compatible with the principle of sufficiency economy; (iv) disseminating the information about alternative fuels to the public; and (v) promoting private sector initiatives and public participation in energy policymaking.

The National Industrial Development Master Plan B.E 2555 – 2574 (2012 – 2031) by the Ministry of Industry prioritizes the renewable energy sector as one of the 8 strategic sectors of the country. The Plan recognizes the importance of the renewable energy sector to the industrial sector as a whole and acknowledges the challenges and opportunities to move the sector forward as a part of the country's industrial development strategies.

Energy Industry Act (2007)
The key points of this act include: (i) promoting the use of RE that has less adverse impact on the environment in the electricity industry operation; (ii) promoting adequate and secure energy service provision, while maintaining fairness for both energy consumers and licensees; (iii) promoting competition in the energy industry and preventing abuse of dominance in the energy industry operation; (iv) promoting economical and efficient use of energy and resources in the energy industry operation, with due consideration of the environmental impact and the balance of natural resources.

The 20-year National Industrial Development Plan (2012-2031) of MoI
MoI has formulated 20 years Industrial Development Plan (2012-2031) to develop Thailand's industry from knowledge based industry (within 5 years) to innovative industry (within 10 years) and to become sustainable industry in the long-run (within 20 years).

Alternative Energy Development Plan: AEDP 2012-2021
The new AEDP of Thailand has the target of increasing the share of the alternative (renewable) energy mix, which exclude natural gas, to be at least 25% of total energy consumption by the year 2021 (or 25,000 ktoe from alternative energy out of 99,838 ktoe of total energy). The specific objectives of the Plan include: (i) developing alternative energy as major energy type of the country; (ii) establishing the energy security of the country with less oil dependency; (iii) expediting and building up the alternative energy development at the community level as green community; (iv) promoting the domestically based alternative energy industry; and (v) researching, developing and promoting the competitiveness of Thai alternative energy technology to the international market.

Envisaged strategies to implement the AEDP include the following:

1) Promote the local community to be widely involved with and participate in renewable energy production and consumption;
2) Adjust/improve the existing incentives/measures for private investment in the renewable energy market;
3) Legal/regulation revision to support alternative energy development;
4) Public relations and capacity building of related sectors;
5) Promote the research work as a major tool for alternative energy industry development.

Furthermore, the proposed project is in alignment with the recently approved **UNPAF 2012 – 2016** (United Nations Partnership Framework, Thailand 2012-2016) which emphasizes the management of natural resources and the environment towards sustainability as one of the key development strategies agreed upon with the Royal Thai Government. As a result, the UNPAF shows the commitment of UN agencies in Thailand to support the country in responding to the challenges of climate change without hampering its economic development by setting up the United Nations Joint Team (UNJT) on Climate Change. The UN agencies participating in this UNJT on Climate Change are committed to providing technical assistance to both the public and private sectors to achieve the expected Outcome, such as *energy, industry, and transport sector progressively contribute to the development of a low-carbon and green economy*. Working closely with other agencies on the UNJT on Climate Change, UNIDO, led by the Regional Office in Thailand, plays an active role as a leading agency on the Climate Change Mitigation component.

Thailand's 2nd National Communication (2011) highlights the importance of the energy sector as the main emitter of GHGs, as well as enhancing energy efficiency and renewable and alternative energy for the mitigation strategies of the Thai government. The target to reduce energy intensity (the ratio of energy consumption to national GDP) from 1.4:1 to 1:1 was established, with an increase of renewable energy contribution to the total energy mix. The Communication notes that a need for environment- friendly and cost-effective technical know-how and technologies in different areas of climate change, capacity building, national sustainable development, international cooperation and innovative approaches to assess vulnerability and adaptation are also of high importance to the country. In addition, the Technical Needs Assessment (TNA) in Thailand[17] has identified the energy sector as the most important sector for climate change mitigation; notably, the priority sectors for mitigation actions highlighted by the TNA are closely in line with the competition technology categories selected for the proposed project. Hence, the Cleantech project fits seamlessly with and contributes to the expected Outcome under the UNJT on Climate Change, as well as the goals outlined in the National Communication and the TNA.

This project, by seeking to interact with policy makers, SMEs and with the intention to catalyze greater private and public sector investments into clean energy technology innovations in the country, is in line with the national priorities as stated in the above-mentioned documents.

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities

The objective of the project is fully consistent with the goal of the Climate Change Mitigation Focal Area, which supports developing countries and economies in transition toward a low-carbon development path, and in particular with Objective 1 of the GEF Climate Change Mitigation Framework, namely "Promote the demonstration, deployment, and transfer of innovative low-carbon technologies."

The project will assist Thailand in creating an enabling policy and regulatory environment and building up adequate institutional capacity to organize national competitions on clean energy technology innovations and implement accelerator programmes for clean technology SME start-ups during the project life and beyond. This is in line with Modality 3 of the November 2011 Revised Strategy for

[17] http://unfccc.int/ttclear/sunsetcms/storage/contents/stored-file-20130327165947778/TechnologyNeedsAssessment-Mitigation_Thailand.pdf

Enhancing Engagement with the Private Sector, namely "SME Competition Pilot: Encouraging Entrepreneurs and Innovators," which provides support to entrepreneurs and innovators seeking to establish commercial ventures in clean technologies.

B.3 The GEF Agency's program (reflected in documents such as UNDAF, CAS, etc.) and Agencies comparative advantage for implementing this project:

Recognizing the importance of energy for economic development, as well as the negative effects of inefficient energy use, the GEF has made it a strategic objective to support projects that not only promote the transfer of energy efficient and renewable energy technologies, but also enable work with regulatory institutions on reforming policies and regulations in this vital sector. The project is in line with the GEF's work on climate change that has maintained a strong focus on the transfer of environmentally sound technologies (ESTs), closely allied with the UNFCCC's technology transfer framework. Moreover, the project is in line with, UNDAF and MDGs particularly MDG-7 Environment.

UNIDO's mandate is inter-alia, to promote technology transfer, technology development and deployment in developing countries. One of the current three thematic priorities of UNIDO programme is sustainable energy and environment.

UNIDO's Energy Strategy aims at helping developing countries and countries in transition to achieve the following objectives:

- Increase the competitiveness of their industries by reducing the dependence on fossil fuels;
- Reduce their impact on climate change by decreasing the carbon emissions of their industries through energy efficiency and by promoting renewable energy technologies;
- Increase the viability of their enterprises, particularly in rural areas, by augmenting the use of locally available renewable energy sources.

UNIDO's wide experience of capacity building, along with its knowledge of the private sector and its expertise on sustainable energy standards and technologies makes it an ideal partner to adapt Cleantech Open's revolutionary initiative to a developing country context. In addition, the proposed project will also coordinate closely, where relevant, with other UNIDO branches, such as the Business, Investment and Technology Service Branch, Trade Capacity-Building Branch, Agri-Business Development Branch, Montreal Protocol Branch, Industrial Policy and Private Sector Development Branch and Environment Management Branch.

UNIDO's in-house expertise will offer technical oversight and the UNIDO office in Bangkok will be involved in the day–to-day operations alongside representatives from project counterparts, and other key stakeholders. UNIDO's Centres such as National Cleaner Production Centre (NCPC) and Investment and Technology Promotion Centre (ITPO) and their networks will be closely involved in key activities of the project, where the issue of resource efficiency is broadly promoted.

UNIDO will contribute US$70,000 in cash and US$130,000 in-kind to the project.

C. DESCRIBE THE BUDGETED M &E PLAN:

Project monitoring and evaluation (M&E) will be conducted in accordance with established UNIDO and GEF procedures. The overall objective of the monitoring and evaluation process is to ensure successful and quality implementation of the project by: i) tracking and reviewing project activities execution and actual accomplishments; ii) providing visibility into progress as the project proceeds so that the implementation team can take early corrective action if performance deviates significantly from original plans; and iii) adjusting and updating project strategy and implementation plan to reflect possible changes on the ground, results achieved and corrective actions taken.

According to the Monitoring and Evaluation policy of the GEF and UNIDO, follow-up studies like Country Portfolio Evaluations and Thematic Evaluations can be initiated and conducted. All project partners and contractors are obliged to (i) make available studies, reports and other documentation related to the project and (ii) facilitate interviews with staff involved in the project activities.

The Project Result Framework (LogFrame) in Annex A provides performance and impact indicators for project implementation along with their corresponding means of verification. These will form the basis on which the project's M&E Plan will be built. The evaluation team reports and verifies the actual progress against the work plan approved by the Project Steering Committee. Thus M&E enables the project manager to take corrective measures in case there are significant deviations between the forecasted work plan and actual implementation.

The M&E procedure will consist of project inception, progress reporting, midterm review and a project final report. A detailed monitoring plan for tracking and reporting on project time-bound milestones and accomplishments will be prepared by UNIDO in collaboration with the PMU and project partners at the beginning of project implementation and then periodically updated. The terminal evaluation report will be submitted to the ODG/EVA, and thus will also fall under their responsibility.

By making reference to the impact and performance indicators defined in the Project Results Framework, the monitoring plan will track, report on and review project activities and accomplishments in relation to the energy savings achieved and GHG emission reductions generated as a result of the project. In addition, it will assess the overall socio-economic impacts, including those to gender and community, of the project activities to include wide scale adoption of innovative technologies, better working environments at SMEs and an increase in income levels and opportunities for enterpreneurs and workers.

The National Project Manager will be responsible for continuous monitoring of project activities implementation, performance and will track progress towards milestones. The UNIDO project manager will be responsible for tracking overall project milestones and progress towards the attainment of the set project outputs and will be also responsible for reporting to the GEF.

US$70,000 from the GEF and co-financing equivalent to US$85,000 have been forseen for the M&E activities. From the GEF grant, US$20,000 has been reserved for the final independent evaluation; this evaluation will be conducted 3 months prior to the completion of the project.

In addition, part of the UNIDO’s contribution of US$70,000 to project implementation will be used by the UNIDO project manager and the UNIDO Regional Office in Bangkok for monitoring of the project implementation.

M&E Activity Categories	Feeds Into	Time Frame	GEF Budget (USD)	UNIDO (USD)	Co-financing (in-kind, USD)	Responsible Parties
Measurement GEF Tracking Tool specific indicators	Mid-term Review and Terminal Evaluation Reports	At project mid-term and completion	35,000	35,000	50,000	• Project execution partner/PMU submit inputs for consolidation and approval by project steering committee (PSC); • PSC submits final inputs/reports to UNIDO PM
Periodic progress reports and monitoring of project impact indicators (as per LogFrame)	Project management; Semi-annual progress report; Annual GEF PIR	Semi-annually				
Midterm review/evaluation	Project management; PSC	At project mid-term	15,000	15,000	15,000	UNIDO PM and PMU
Independent terminal evaluation	Terminal Evaluation Review (TER) conducted by UNIDO ODG/EVA	Project completion (at least one month prior to the end of the project and no later than six months after project completion)	20,000	20,000	20,000	Independent evaluator for submission to UNIDO PM

D. LEGAL CONTEXT

The following legal context will apply to the project: "The Kingdom of Thailand agrees to apply to the present project, mutatis mutandis, the provisions of the Revised Standard Technical Assistance Agreement concluded between the United Nations and the Specialized Agencies and the Government on 4 June 1960."

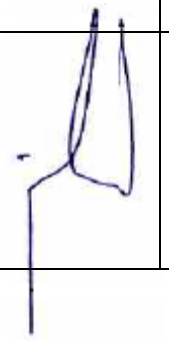
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

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)*
Mr.Chote Trachu	Permanent Secretary	**MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT**	**11/13/2013**

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**
Mr. Philippe Scholtès Officer-in-Charge, PTC and UNIDO GEF Focal Point		06/04/2014	Mr. Jossy Thomas UNIDO Industrial Development Officer	+43-1 - 260-26 - 3727	J.Thomas@unido.org 

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Result	Indicators	Baseline	Target	Means of Verification	Assumption and Risks
Objective					
Promotion of clean energy technology innovations and entrepreneurship in SMEs in Thailand	Number of SMEs to pursue innovations in clean technologies; Successful Cleantech (CT) programmes organized after project completion; Additional investment into clean technology innovations due to increased interest in the CT programme; Number of SMEs as members of the national platform (sex-disaggregated data will be collected); Tons of GHG emissions directly or indirectly avoided.	No clean energy technology innovations support system; Limited investments in clean energy technology innovatives, especially by SMEs; Minimal attendance from the SME sector; Data on emission reductions related to clean energy technology innovations in SMEs not available.	National Cleantech Platform (NCTP) established to support SMEs and early-stage entrepreneurs with promising innovative clean energy technologies products/ services/ business ideas; Investment strategy prepared; SMEs and start-ups are trained and connected with funding partners and investors; Approximately US$8 million invested in clean energy technology innovations; At least 200 SMEs as members of the national platform; Indirect emission reductions in the range of 811,500t CO2 eq to approximately 1,623,000t CO2eq over the period 2014-2023.	Project progress reports; Mid-term independent review; Final independent project evaluation report; GEF Tracking Tools; Database and records maintained during and after project completion.	Technology innovation and energy productivity remains top priority of the Government of Thailand; SMEs are committed to the Cleantech approach; Government of Thailand remains committed to the Cleantech approach.

Result	Indicators	Baseline	Target	Means of Verification	Assumption and Risks
Outcome 1					
A national level mechanism/platform established to promote clean technology innovations and entrepreneurship; clean energy technology innovators identified, coached and supported during and beyond the Cleantech competition	National Cleantech Platform for SMEs established; Number of new clean energy technologies or innovative businesses created/accredited.	No dedicated platform for clean energy technology and SMEs; Baseline value not available.	Establishment of National Cleantech Platform for SMEs; At least 4 new clean energy technologies or innovative businesses per Cleantech competition during and after project implementation period.	Project progress and evaluation reports; Survey of competition participants and other stakeholders.	Continuous support and participation by government, R&D institutions and SMEs; Sufficient commitment and participation by the experts, mentors.
Outputs					
1.1 SMEs associations and national agencies involved in promoting clean technology innovations mobilized and a coordinating platform at the national level established	Number of clean energy technology innovation platform for SMEs and coordinating mechanism established at the national level;	No national clean energy technology innovation platform for SMEs in place;	1 NCTP established;	Project progress and evaluation reports;	Continuous support from the Government and national partner institutions; Commitment from project partners and committed participation of SMEs and entrepreneurs.
1.2 Two to three annual Cleantech business competitions held and accelerator established across selected SME clusters covering four clean energy categories (EE, RE, Waste to Energy, and Water Efficiency)	Number of competition entries, number of semi-finalists and finalists etc; Number of provinces	As the Cleantech competitions are yet to be established, the baseline for entrants, semi-finalists and finalists is zero; No provinces and SME	At least 100 entrants per competition (target of 30% women participants); At least 2 provinces and 4		

Result	Indicators	Baseline	Target	Means of Verification	Assumption and Risks
1.3 Extensive advocacy and outreach activities organized at the national level, and willing provinces and SME clusters identified for participation in the Cleantech platform	and SME clusters identified and SMEs invited to participate in the Cleantech competition.	clusters identified yet.	SMEs clusters identified; Total of 100 SMEs invited to participate to each competition.		
Outcome 2					
National institutional capacity build for mentoring and training programmes for clean technology innovations as part of competition and accelerator programme	Quality and importance of training and mentoring in clean energy technology business accelerator programmes at national level	Limited institutional capacity to conduct technology innovation competitions and business incubator services	Trainers and mentors trained by the project are equipped with skills and tools to replicate and improve mentoring and training programmes for clean technology innovation; Increased importance of provision of advanced training and mentoring in government funded technology innovation and business development support programmes for SMEs and start-ups.	Project progress and evaluation reports; Feedback from entrepreneurs trained and mentored through surveys and interviews.	Continuous support from the Government and national partner institutions; Sufficient commitment and participation by national experts and mentors.
Outputs					
2.1 Capacity building of national institutions and industrial associations to host and support the Cleantech programme, including training of trainers on	Number of partner institutions staff trained to be able to organize competition and accelerator programme; Number of mentors	No dedicated similar training reported – baseline is assumed to be zero; No training program for	30 staff from partner institutions receive training on competition organization (with at least 30% being women); At least 10 training	Project progress and evaluation reports;	Continuous support from the Government and national partner institutions; Sufficient commitment and

Result	Indicators	Baseline	Target	Means of Verification	Assumption and Risks
entrepreneurship start-ups, knowledge management, benchmarking of technologies and information on best practices 2.2. Mentor Program launched and at least 100+ mentors identified and trained 2.3. Intensive Training Seminars, Corporate and Public Private Partnership Forums held and knowledge/best practice exchanged with other Cleantech programme countries	trained; Number of competition semi-finalists supported by Cleantech training; Number of shortlisted cleantech SMEs connected with funding & partnership opportunities; Number of SME and entrepreneurs that invests in cleantech innovations.	mentors reported - baseline is assumed to be zero; No clean technology competition in place - baseline is assumed to be zero; Presently, there is lack of awareness on such initiatives present.	workshops and mentoring sessions organized (target of 10% women participants); At least 2 training courses organized (target of 30% women participants); At least 15 of shortlisted cleantech SMEs connected with funding and partnership opportunities.		participation by national experts and mentors. Continuous support and participation by relevant stakeholders.
Outcome 3					
Policy and institutional framework strengthened to promote and support clean technology innovations in SMEs	Extent to which existing policies and regulations are amended or effectively implemented.	A score between 0 and 4, will be given to assess these policies (0 is poor and 4 is optimal).	A score of at least 3.	Project progress reports; Mid-term review and final project evaluation report.	Continuous support from the Government and national partner institutions; Continuous support and participation by industry and other

Result	Indicators	Baseline	Target	Means of Verification	Assumption and Risks
					partners.
Outputs					
3.1 Necessary policies and regulations required for the promotion and support of the clean technology innovations identified and developed	Policies, regulations and programmes amended or developed to create more supportive environment for clean energy technology innovations in/by SMEs;	Current policy and institutional frameworks not focused on clean energy technologies and SMEs;	Possible amendment or development of 1-2 policies/programmes;	Project progress reports; Mid-term review and final project evaluation report.	Continuous support from the Government and national partner institutions; Continuous support and participation by industry and other relevant stakeholders.
3.2 Regional stakeholder meetings held and partnerships developed with leading institutions, agencies and universities	Number of regional cleantech stakeholder meetings held; Number of partnerships developed within the scope of the Cleantech platform.	No cleantech and SMEs innovation meetings reported – Baseline is assumed to be zero; Given the boundary of the Cleantech platform, baseline is zero.	At least 4 regional stakeholder meetings held; At least 4 partnerships developed.		

ANNEX B: TIMELINE OF THE OUTPUTS

Outputs	2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: National Cleantech Platform to promote clean technology innovations & business models in SMEs in Thailand												
1.1 SMEs associations & national agencies involved in promoting clean technology innovations mobilized and a coordinating platform at the national level established												
1.2 Two to three annual Cleantech business competitions held and accelerator established across selected SME clusters covering four clean energy categories (EE, RE, Waste to Energy and Water Efficiency)												
1.3 Extensive advocacy and outreach activities organized at the national level, and willing provinces and SME clusters identified for participation in the Cleantech platform												
Component 2: Institutional capacity building for clean technology innovations												
2.1 Capacity building of national institutions and industrial associations to host and support the Cleantech programme, including training of trainers on entrepreneurship start-ups, knowledge management, benchmarking of technologies and information on best practices												
2.2 Mentor Program launched and at least 100+ mentors identified and trained												
2.3 Intensive Training Seminars, Corporate and Public Private Partnership Forums held and knowledge/best practice exchanged with other Cleantech programme countries												
Component 3: Policy and regulatory framework strengthened for scaling up of Cleantech competition, innovation and acceleration activities across Thailand												
3.1 Necessary policies and regulations required for the promotin and support of the clean technology innovations identified and developed												
3.2.Regional stakeholder meetings held and partnerships developed with leading institutions, agencies and universities												
Component 4: Monitoring and Evaluation Management												
4.1. Mid-term independent review/evaluation conducted												
4.2. Documentation of best practices for dissemination												

ANNEX C: UNIDO/GEF GLOBAL CLEAN TECH BROCHURE[18]

[18] The digital version of the Global Brochure is on the GEF website: https://www.thegef.org/gef/sites/thegef.org/files/publication/GEF-UNIDO_GlobalCleantech.pdf