

PART I: PROJECT IDENTIFIERS

Project Title:	Thailand's Second Biennial Update Report (SBUR) to the UNFCCC			
Country(ies):	Thailand	GEF Project ID: ¹		
GEF Agency(ies): UNDP		GEF Agency Project ID: 5864		
Other Executing Partner(s):	Office of Natural Resources and	Submission Date:	4 Jul 2016	
	Environmental Policy and			
	Planning (ONEP), Ministry of			
	Natural Resources and			
	Environment (MoNRE)			
GEF Focal Area (s):	Climate Change	Project Duration (Months)	24	
Type of Report: Biennial Update Report		Expected Report Submission to Convention	December	
			2017	

A. PROJECT FRAMEWORK*

Project Objective: To assist Thailand in the preparation of its Second Biennial Update Report (SBUR) for the fulfilment of the obligations under the United Nations Framework Convention on Climate Change (UNFCCC).

			(in \$)	
Project			GEF	Confirm
v	Project Outcomes	Project Outputs	Project	ed Co-
Component			Financing	financing
				2
1. Institutional arrangements and national circumstances, Other info, including submission of SBUR	1.1: Information on national circumstances and institutional arrangements, 1.2. constraints and gaps, and related financial, technical and capacity needs including description of support needed and received, 1.3. level of support received for SBUR preparation and 1.4. any other information considered relevant, and	Output 1.1.1: Description of Thailand's national development objectives, priorities and circumstances, and the specific needs and concerns arising from the adverse effects of climate change Output 1.1.2: Strengthened existing institutional arrangement relevant to the successful implementation of the biennial update reports and NCs on a continuous basis Output 1.1.3: Chapters on 'Information on national circumstances and institutional arrangements relevant to the preparation of the national communications on a continuous basis' prepared Output 1.2.1: Chapters on 'Constraints and gaps,	50,000	5,000
	1.5. compilation and submission of SBUR to UNFCCC	and related financial, technical and capacity needs, including a description of support needed and received' prepared Output 1.3.1: Chapters on 'Information on the level of support received to enable the preparation and submission of biennial update reports' prepared Output 1.4.1: Chapters containing 'Any other information that the non-Annex I Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its		

Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submission.

Co-financing for enabling activity is encouraged but not required.

GEF 6 Enabling Activity Template for Agency July 2014

 $^{^{2}\,}$ Co-financing for enabling activity is encouraged but not required.

		biennial update report' prepared. Output 1.5.1.: SBUR published and submitted according to the guidelines contained in Annex III		
2. National inventory	Outcome 2. National GHG inventory on emissions by sources and removal by sinks prepared for the year 2013	of Dec.2/CP. 17 for non-Annex I parties Output 2.1: Strengthen the establishment of 5 National GHG Inventory Working Groups, which will cover the IPCC sectors of Energy, Industrial Processes and Product Use (IPPU), Agriculture, Forest and other Land Use (AFOLU) and Waste Output 2.2: Definition of the institutional arrangements, training and capacity building of the 5 Working Groups Output 2.3: Strengthening of GHG inventory database system Output 2.4: Collection of activity data for the energy, IPPU, AFOLU, and waste sectors collected, quality controlled for the year 2013 Output 2.5: Review and update country specific emission factors for key source categories, including for other sources, when required and as feasible Output 2.6: GHG inventory report prepared for 2013 year, using the IPCC 1996 Guidelines and software	120,000	15,000
3. Mitigation actions and their effects	Outcome 3: Mitigation actions and their effects investigated	Output 3.1: Strengthen the technical capacity of the working groups Output 3.2: Data collection and analysis of relevant information regarding the mitigation actions for Energy, Industry, Agriculture, Forest and Waste sectors Output 3.3: Mitigation actions being developed described, including name, sector, coverage, goals, objectives, methodologies, and mitigation potential estimates Output 3.4: Investigate the effects of the mitiation actions on other sector Output 3.5: Conduct a Cost Benefit Analysis (CBA) of thee mitigation actions being developed Output 3.6: Support Thailand in development of its Nationally Appropriate Mitigation Action (NAMA) and (intended) Nationally Determined Contributions ((i)NDC) Output 3.7: Chapters on: 'Information on mitigation actions and their effects, including associated methodologies and assumptions' prepared	100,000	10,000
4. Information on domestic Measurement Reporting and Verification (MRV) included	Outcome 4: Information on domestic Measurement Reporting and Verification (MRV) included	Output 4.1: Awareness raising and identification of the different options and possibilities for the domestic MRV according to national circumstances and capacity and taking into account the different nature of the mitigation actions, as identified in FBUR Output 4.2: Chapters on 'Information on domestic measurement reporting and verification' prepared	45,000	5,000

5. Monitoring and evaluation	5. Monitoring and Evaluation (M&E) of project outcomes and outputs conducted	Output 5.1: Organize & hold a Project inception workshop Output 5.2: Produce & submit Quarterly project reports Output 5.3: End of the project report, including lessons learned Output 5.4: Project audit	5,000	5,000
		Subtotal	320,000	40,000
	32,000	60,000		
	·	Total Project Cost	352,000	100,000

^{*} List the \$ by project components. Please attach a detailed project budget table that supports all the project components in this table.

B. SOURCE OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Office of Natural Resources and	In-kind	100,000
	Environmental Policy and		
	Planning (ONEP), Ministry of		
	Natural Resources and		
	Environment (MoNRE)		
Total Co-financing			100,000

C. GEF FINANCING RESOURCES REQUESTED BY AGENCY, COUNTRY AND PROGRAMMING OF FUNDS

~		Commen		(in \$)		
GEF Agency	Trust Fund	Country Name/Global	Programming of Funds	GEF Project Financing (a)	Agency Fee a)/ (b) ²	Total c=a+b
UNDP	GEF TF	Thailand 🛚	Climate Change	352,000	33,440	385,440
Total Gra	nt Resour	rces		352,000	33,440	385,440

a) Refer to the Fee Policy for GEF Partner Agencies

³ This is the cost associated with the unit executing the project on the ground and could be financed out of trust fund or co-financing sources. For EAs within the ceiling, PMC could be up to 10% of the Subtotal GEF Project Financing.

⁴ Project Direct Cost, e.g. recruitment of Project Personnel and Consultants by UNDP CO.

PART II: ENABLING ACTIVITY JUSTIFICATION

A. ENABLING
ACTIVITY
BACKGROUND AND
CONTEXT (Provide
brief information
about projects
implemented since a
country became
party to the
convention and
results achieved):

The current population of the Kingdom of Thailand is about 67.22 million people, which is an approximate 6% increase from the population in 2010⁵. More than a third of Thailand's population lives in cities. Over the past several decades, Thailand has experienced rapid economic growth. As a consequence of the economic growth, increase in population and urbanisation, GHG emissions have risen and are expected to grow. Thailand's First Biennial Update Report (FBUR) indicates that in 2001 Thailand emitted 305.52 MtCO2e/yr, with effective reduction of 70.94 MtCO2e due to carbon sinks' absorption effects, resulting in a net balance of 234.58 MtCO2e/yr.

Recognizing the serious threat posed by climate change, and in order to safeguard the livelihoods of the population dependent on agriculture and in support of the global efforts to address climate change, Thailand ratified the UN Framework Convention on Climate Change (UNFCCC) in 1994 and the Kyoto Protocol (KP) in 2002. Thailand has undertaken and is undertaking many activities and initiatives to deal with the climate change challenges. These efforts are led by the National Committee on Climate Change Policy (NCCC) established in 2006, which is chaired by the Prime Minister. The Office of Natural Resource and Environmental Policy and Planning (ONEP) has been assigned as the National Focal Point (NFP) for the UNFCCC and KP. Important policies and plans to promote Low Carbon Developments and Green Growth in Thailand include the "11th National Economic and Social Development Plan" (2012-2016) of The National Economic and Social Development Board (NESDB) and the 'Thailand Climate Change Master Plan' (2015-2050).

As a Party to the convention Thailand has the obligation to report on the measures adopted and implemented through its policies and measures to adapt to and mitigate the effects of climate change, thereby contributing to the attainment of the objective of the Convention. To meet its reporting obligations, Thailand has so far prepared and submitted two national communications to the UNFCCC: the Initial National Communication (INC) in 2000, and the Second National Communication (SNC) in 2011, as mandated by articles 4 and 12 of the Convention. Thailand is currently preparing its Third National Communication which is due for submission in December 2017.

In accordance with decisions taken during COP 16 and 17 for non-Annex I Parties, Thailand prepared its First Biennial Update Report (FBUR) that was submitted in December 2015. The FBUR reported on the established institutional arrangement during the preparation of the BFUR, the GHG inventory including AD collection procedures, databasing and archiving, capacity building undertaken to produce GHG inventories inhouse in the medium term , mitigation analysis and their effects and domestic Monitoring, Reporting and Verification (MRV) system.

The institutional arrangements adopted during the preparation of the FBUR and presently for the ongoing TNC as depicted in figure 1 below will be strengthened. Activity data (AD) collected by the various institutions and ministries include, amongst others: Ministry of Energy, Ministry of Transport, Ministry of Natural Resources and Environment, Ministry of Agriculture and Cooperatives and Ministry of Industry. These constitute the main source of AD for estimating emissions and are supplemented with data from the private sector through direct contacts.

SBUR will further put emphasis in institutionalising the reporting process, through raising awareness amongst key stakeholders, consultations will be held with heads of key stakeholder institutions to re-emphasize the importance of the reporting, in order to get their buy-in into the process. Capacity building and trainings will be carried out on the IPCC reporting guidelines and software in order to capacitate the working group members and possible serve as incentive.

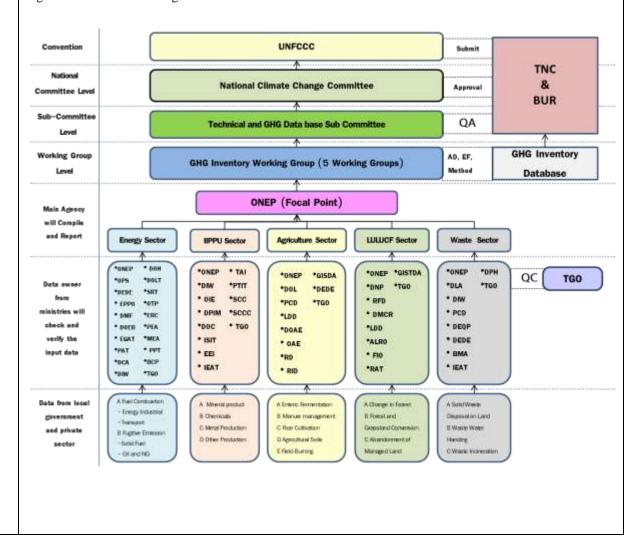
SBUR will provide the platform to further strengthen the existing institutional arrangements and enhance capacity of the 5 working groups established under previous NCs and FBUR projects. Under SBUR and TNC more emphasis will be on integrating the work of the various working groups and increasing coherence. The SBUR will use IPPC 1996 guidelines, however during SBUR preparations more data required for using IPPC 2006 guidelines in the future will be gathered, including preparing a database system for the inventory. The

⁵ http://data.worldbank.org/country/thailand accessed on 09-09-2015.

work on the database system (a 3-year project funded by the government) includes determining a structure for the data compiling system and preparing a guideline for government agencies on how to collect activity data and how to report this data to ONEP.

The Office of Natural Resource and Environmental Policy and Planning (ONEP) has been assigned as the National Focal Point (NFP) for the UNFCCC and KP and is leading the preparations of national communications and biennial update reports, supported by various line agencies and other stakeholders, see figure 1 below.

Figure 1: institutional arrangements



Agencies:			
ALRO	Agricultural Land Reform Office	IEAT	Industrial Estate Authority of Thailand
BCP	Bangchak Petroleum PCL	ISIT	Iron and Steel Institute of Thailand
BMA	Bangkok Metropolitan Administration	LDD	Land Development Department
DCA	Department of Civil Aviation	MEA	Metropolitan Electricity Authority
DEDE	Department of Alternative Energy Development and Efficiency	OAE	Office of Agricultural Economics
DEQP	Department of Environmental Quality Promotion	OIE	Office of Industrial Economics
DIW	Department of Industrial Works	ONEP	Office of Natural Resources and Environmental Policy and
DLA	Department of Local Administration		Planning
DLD	Department of Livestock Development	OPS	Office of the Permanent Secretary
DMCR	Department of Marine and Coastal Resources	OTP	Office of Transport and Traffic Policy and Planning
DMF	Department of Mineral Fuels	PAT	Port Authority of Thailand
DNP	Department of National Parks, Wildlife and Plant Conservation	PCD	Pollution Control Department
DOAE	Department of Agricultural Extension	PEA	Provincial Electricity Authority
DOC	Department of Customs	PTIT	Petroleum Institute of Thailand
DOEB	Department of Energy Business	PTT	PTT Public Company Limited
DOH	Department of Harbor	RAT	Rubber Authority of Thailand
DOLT	Department of Land Transport	RD	Rice Department
DPIM	Department of Primary Industries and Mines	RFD	Royal Forest Department
		1	

In the last decade many projects have been implemented by Thai agencies to enhance national capacities, identify mitigation actions and reduce the emissions of GHG. In particular under the enabling activities of GEF, Thailand has enhanced national capacities on development of GHG inventory, mitigation options and exposure to vulnerability and adaptation options. The accumulated capacities are hardly keeping pace with increasing threats and the growing issues and problems of climate change process. It is important for Thailand to advance further its national capacities to cope with the existing and emerging issues and to communicate with UNFCCC parties in addressing climate change.

RID

SCC

SCCC

SRT

TAI

TGO

Royal Irrigation Department

Siam City Cement Company

Thailand Automobile Institute

State Railway Authority of Thailand

UNFCCC United Nations Framework Convention for Climate Chang

Thailand Greenhouse Gas Management Organization

Siam Cement Company

During the period between the first and the second NC, Thailand also carried out the project called "EA II". EA II aimed at enabling Thailand to maintain the national capacity in preparation of national communication. The project implemented a preliminary assessment of Technology Needs Assessment (TNA) in key areas (inventory, mitigation, V&A and research and systematic observation) and public awareness on climate change.

Following the decision of the Conference of the Parties to the UNFCCC, Thailand also participated in the pilot phase of the Technical Needs Assessment Project co-ordinated by the UNEP. The project aims at identifying climate friendly technology needs of Thailand to enhance national capacity in meeting the objectives of the Convention in addressing climate change.

Thailand is planning to finalize and submit its Second Biennial Update Report to the UNFCCC by December 2017, as a summary of parts of Thailand's Third National Communication (TNC).

Agencies

DPH

EEI

EGAT

EPPO

ERC

GISTDA

Department of Public Health

Electrical and Electronics Institute

Energy Policy and Planning Office

Energy Regulatory Commission

Forest Industrial Organization

Electricity Generating Authority of Thailand

Geo-Informatics and Space Technology Development Agency

B. ENABLING ACTIVITY GOALS, **OBJECTIVES, AND ACTIVITIES** (The proposal should briefly justify and describe the project framework. Identify also kev stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable. Describe also how the gender dimensions are considered in project design and implementation):

Justification of the proposal: Thailand has so far submitted two National Communications and the first Biennial Update Report (FBUR) to the COP. The approach taken during the preparation of the national communications has to a certain extent built technical and institutional capacities within agencies. However, further institutionalization and strengthening of working groups is required. Working groups were established under FBUR and TNC, but they did not always work as envisaged, this was due to, among others: lack of understanding on the issues amongst stakeholders, staff turn-over, lack of commitment from stakeholders as they did not see the importance of the reporting and they view it as something outside their mandate. In addition, the accumulated capacities during past projects are hardly keeping pace with increasing threats and the growing issues and problems of climate change process. It is important for Thailand to advance further its national capacities to cope with the existing and emerging issues, develop and implement national plans accordingly and to communicate with UNFCCC parties in addressing climate change. These aspects will be addressed and improved during SBUR.

Goal: To fulfil the decisions of COP 16 & 17, which require developing countries to submit biennial update reports (BURs) containing updates of national greenhouse gas inventories, including a national inventory report and information on mitigation actions, needs and support received.

Objective: To assist Thailand in the preparation of its Second Biennial Update Report (SBUR) for the fulfilment of the obligations under the United Nations Framework Convention on Climate Change (UNFCCC).

The project is in line with the GEF's climate change mitigation objective CCM3 under GEF-6: Foster Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies which provides support to Non Annex I countries at fully agreed cost to prepare their BUR in a timely manner.

Thailand intends to strengthen institutional, technical and analytical capacities through the preparation of the SBUR with the financial assistance of the GEF. The **main activities** will be:

- 1. Enhance existing institutional arrangements and update information on national circumstances;
- 2. Prepare a National inventory on emissions by sources and removal by sinks of GHG for the year 2013 in line with IPCC requirements through the use of the IPCC 1996 Guidelines and software;
- 3. Assess and report on specific mitigation actions implemented by the country and their outcomes including emissions reductions as far as possible;
- 4. Provide information on Constraints and gaps, and related financial, technical and capacity needs, including a description of support needed and received;
- 5. Provide information on the domestic measurement, reporting & verification system being developed according to the national circumstances and capabilities;
- 6. Report on the level of support received to enable the preparation and submission of the SBUR
- 7. Provide any other information relevant to the achievement of the objective of the convention that are suitable for inclusion in the SBUR:
- 3. Prepare and submit the Second Biennal Update Report to the COP by end of 2017.

Stakeholders: The implementing partner for the project will be Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment (MoNRE). The project will be implemented under the TNC project management unit, which is already established and operational. The SBUR will be prepared as a summary of parts of Thailand's Third National Communication (TNC). Based on the experience from the national communications and FBUR, one of the lessons learnt is that the most effective way to address climate change is to involve all relevant stakeholders. Therefore this project will be implemented with several key stakeholders involved. These include, but are not limited to: Thailand Greenhouse Gas Management Organization (TGO), Ministry of Energy (MOEN), Ministry of Industry, Ministry of Transport, Ministry of Agriculture and Cooperatives (MOAC), Ministry of Natural Resources and Environment, Ministry of Interior, the private sector and civil society groups. The roles of the main stakeholders in the SBUR preparation process is more explicitly given below:

Stakeholder	Role		
Office of Natural Resources and Environmental	Implementing agency and overall coordination		
Policy and Planning (ONEP)			
Thailand Greenhouse Gas Management	National Organisation with technical expertise on GHG		
Organisation	emissions and responsible for quality control of GHG		
	data and inventory		
Ministry of Energy	GHG inventory lead for energy		
Ministry of Agriculture and Cooperatives	GHG inevntory lead for agriculture		
Minstry of Industry	GHG inventory lead for energy, industry and waste		
Ministry of Interior	GHG inventory lead for land use		
Ministry of Natural Resources and Environment	GHG inventory lead for land use, forest and waste		
Ministry of Transport	GHG inventory lead for transport		
Universities	Support on developing national emission factors		
Private sector representatives e.g. PTT, SCC,	AD data contribution for energy and industry		
SCCC and industrial associations like Electrical			
and Electronics Institute, Iron nd Steel Institute			
of Thailand and Thailand Automobile Institute			

Gender dimension: There is an urgent need to involve woman and children meaningfully in the discussions around climate change, as they are highly vulnerable to climate change. They are beneficiaries but should also be involved in the decision-making process of climate change related activities. Women and men are affected differently by climate change and this has an implication on the various adaptation and mitigation measures to be initiated. Under this project special emphasis will be placed on gender related issues in the working groups. This will help to better understand the role of women, men and children in mitigating to climate change while integrating them in the process.

The guidance on gender integration through the NCs and BURs developed by the Global Support Programme through UNDP and in collaboration with UNEP and GEF will be applied.

C. DESCRIBE THE ENABLING ACTIVITY AND INSTITUTIONAL FRAMEWORK FOR PROJECT IMPLEMENTATION (discuss the work intended to be undertaken and the output expected from each activity as outlined in Table A).

Institutional framework

The SBUR project intends to strengthen Thailand's capability to meet its obligations as a non-Annex 1 party to the UNFCCC in line with the decisions of COP 16 &17. It will ensure the above is done by providing technical training, tools and methods that the national team requires to carry out credible GHG inventory to meet IPCC requirements. It will also seek to ensure that sustainable mechanisms are put in place to ensure that future GHG inventories will be done comprehensively and in a sustainable manner.

Similar to the FBUR and TNC, the SBUR project will be implemented by the Office of Natural Resources and Environmental Policy and Planning (ONEP), as the government ministry tasked with the responsibility for coordination of climate change activities in the country and UNFCCC focal point. The role of ONEP will be to provide strategic guidance to the project, facilitate smooth project implementation and to monitor project progress. The SBUR will strengthen and further capacitate the working groups established under FBUR and TNC. The working groups will be responsible for collecting data as outlined in the stakeholders section, under the coordination and supervision of ONEP. Budgetary allocation will be made to ensure for effective implementation under each sector. An institution will lead the work on each IPCC sector with the support of other experts from concerned institutions. The overall supervision and clearing of final products will be done by the National Climate Change Committee (NCCC). The Government of Thailand will provide in-kind contribution equivalent to a value of USD 300,000. The in-kind support to the project by government will be through the use of office equipment, premises for conference and meetings, the provision of office space and the administrative framework and staff time.

Activities for Project implementation:

1. Strengthen institutional arrangement, update information on National circumstances, Other Info and submission of SBUR in December 2017

The Institutional arrangements developed for the FBUR and TNC preparation will be reviewed in light of shortcomings encountered and updated with new stakeholders added if needed. The roles of the various institutions will be reviewed to enhance sustainable participation of the institutions in the UNFCCC process to improve the quality of the SBUR and NC reports. Information on the Institutional Arrangements and the framework being improved, including the list of stakeholders, to enhance effective implementation of the Convention and reporting thereon to the COP will be provided in the SBUR.

Information on the national circumstances presented in the FBUR will be reviewed and updated to reflect mainstreaming of climate change issues within the development strategies of the country. This component will provide the latest information as far as possible on the geography, demography, natural resources, socio-economic and environmental profiles, climate, land use, health and other sectors with particular reference to climate change impacts, adaptation, emissions and sinks, mitigation and other related information on Thailand's efforts to implement the Convention. Thus, the COP will be provided with the most complete set of latest information for action at the international level.

Under this component also the chapters on 'Constraints and gaps, and related financial, technical and capacity needs, including a description of support needed and received', 'Information on the level of support received to enable the preparation and submission of biennial update reports' and 'Any other information that the non-Annex I Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its biennial update report' will be prepared. Activities related to transfer of environmentally sustainable technologies, information on climate change research and systematic observation, information on climate change education, training, and public awareness, as well as information on capacity building activities, options and priorities and measures to promote information exchange and networking will be included, in line with the Decision 15/CP.18 - Doha work program on Article 6 of the Convention.

This component will also cover the collection of all information and preparation of the final SBUR report and submission to UNFCCC. During the preparation of FBUR, challenge identified were the coherence of the report and the national circumstances chapter. Different experts worked on different parts of the report which affected coherence. During SBUR preparations these gaps will be addressed by continuous involvement of the same experts during the entire process, and involving experts to collect and analyze socio-economic data and link this data with the GHG inventory and mitigation team to ensure coherence and precisely assess the results.

The main activities to be undertaken under this component will lead to the following outputs:

Output 1.1.1.: Description of Thailand's national development objectives, priorities and circumstances, and the specific needs and concerns arising from the adverse effects of climate change

Output 1.1.2: Strengthened existing institutional arrangement relevant to the successful implementation of the biennial update reports and NCs on a continuous basis

Output 1.1.3: Chapters on 'Information on national circumstances and institutional arrangements relevant to the preparation of the national communications on a continuous basis' prepared

Output 1.2.1: Chapters on 'Constraints and gaps, and related financial, technical and capacity needs, including a description of support needed and received' prepared

Output 1.3.1: Chapters on 'Information on the level of support received to enable the preparation and submission of biennial update reports' prepared

Output 1.4.1: Chapters containing 'Any other information that the non-Annex I Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its BUR' prepared.

Output 1.5.1.: SBUR published and submitted according to the guidelines contained in Annex III of Dec.2/CP.

2. National GHG Inventory

Thailand submitted its INC and SNC in 2000 and 2011 respectively. The INC and SNC were mainly outsourced and prepared by consultants. For SNC the GHG inventory was prepared based on 1996 IPCC Guidelines. GHG emissions were estimated based on Tier 1, because of limited availability of information for specific emission factors and limitations in data collection process (though all gases and sectors were included). Under TNC, FBUR and SBUR a different approach is adopted aimed at better institutionalizing the GHG inventory process. Working groups were established to collect good quality data, analyze it and compute estimates of emissions for the inventory. The objective under SBUR is to estimate emissions with higher Tier approaches, more precise identification of uncertainties, and improved QA/QC (when feasible). A part of the institutionalization process under SBUR will be training and capacity building to the national experts of the institutions involved. The existing GHG inventory database system will be strengthened during SBUR to be more aligned with IPPC guidelines. Improved inventory data and GHG estimation will contribute to improved decision-making and identifying relevant policies for GHG emission reductions.

As 2006 IPCC Guidelines are being adopted for GHG inventory preparation, Thailand is realizing that more efforts are required to improve the GHG data and collection process, to improve data management and the GHG inventory database system, and to improve the methodology applied identify uncertainties, key category analysis and the QA/QC process. A project funded with internal resources aimed at updating AD collection and improving the MRV process to obtain data from major sectors (energy, industry, and waste) is being implemented by ONEP at the moment. The project should make Thailand ready for adopting the new IPCC Guidelines in the future. In addition, relevant persons, for example data owners and Working Group members, will be trained to understand and provide the right data. Moreover, ONEP staff and their consultants are attending training course to learn about technical and methodological aspects of estimating GHG emissions from sector activities based on 2006 IPCC Guidelines and for higher Tier calculations. These would help to obtain better GHG emissions estimation. Studies are being planned and conducted for some industrial sectors by industrial institutions/associations to determine specific emission factors. Under SBUR, this project and process will be enhanced and more capacity building and studies conducted to prepare Thailand to apply 2006 IPCC guidelines. To improve the GHG inventory process, the IPCC Good Practice Guidelines will be applied. ONEP currently is in the process of hiring a consultant with expertise in 2006 IPCC Guidelines and Good Practice Guidelines to improve the GHG data collection. This would focus on for instance discussions with data owners of every sector to clarify what data is needed and what specific data can be provided as well as improving data collection process and documents to cover all data needed, etc.

However, the above mentioned approach is a difficult challenge and more efforts need to be invested in capacity building in order for the relevant stakeholders to understand and be familiar with the whole process and become fully operational. Thus, the preparation of the inventory component of the SBUR will build on what has been achieved so far in terms of institutionalization of the GHG inventory process and development of a GHG inventory database management system. For SBUR IPCC 1996 Guidelines will be applied and the GHG inventory report will be for 2013. The main activities to be undertaken under this component will lead to the following outputs:

- Output 2.1: Strengthen the establishment of 5 National GHG Inventory Working Groups, which will
 cover the IPCC sectors of Energy, IPPU, Agriculture, Forest and other Land Use (AFOLU) and
 Waste
- Output 2.2: Definition of the institutional arrangements, training and capacity building of the 5 Working Groups
- Output 2.3: Strengthening of GHG inventory database system
- Output 2.4: Collection of activity data for the energy, IPPU, AFOLU, and waste sectors collected, quality controlled for the year 2013
- Output 2.5: Review and update country specific emission factors for key source categories, including for other sources, when required and as feasible
- Output 2.6: GHG inventory report prepared for 2013 year, using the IPCC 1996 Guidelines and software

3. Mitigation measures and their effects

Mitigation measures are usually informed by the sources and sinks of GHGs, thus making this component of the SBUR to be closely linked to the GHG inventory component. A mitigation analysis covered under FBUR will be further reviewed, investigated and expanded to assure alignment with (I)NDC and reported in the SBUR.

Since the submission of the SNC in 2011 and FBUR in 2015, GHG emissions mitigation policies and measures have been put in place and implemented at the national level to achieve the Thailand's sustainable development and GHG emission reduction targets. Implementing GHG emission reduction measures in energy sector, for example, has been successful. Thailand has put efforts and successfully promoted several alternative energy development projects in country to reduce use of fossil fuel for electricity generation, as well as implemented energy efficiency programs in both government and private sector.

The mitigation section will cover an overview of the national policy and planning framework, detailed description of specific mitigation actions/measures implemented and being develop for energy, industry, forest, agriculture and waste sectors. These actions will contribute towards achieving Thailand's voluntary commitment to reduce GHG emissions up to 20% by 2020 compared with 2005 as a base year.

The approaches and process for determining GHG emissions mitigation measures followed for SBUR will include: A) Assessment of the potential for GHG emission mitigation for all sectors in order to determine an appropriate and practical national policy and action plan. GHG emissions mitigation measures will be reviewed and proposed based on sustainable economic development principles and aligned with national socio-economic and environment situation and targets, B) Study on mitigation options for all IPPC sectors, i.e. energy, industry, agriculture, forest and waste sector, C) Identification of base year (initially set at 2005) for GHG scenario assessment, D) development of baseline scenario starting from base year until 2050, E) screening and prioritization of mitigation options, F) Development of at least 3 mitigation scenarios to project the effect of proposed policies and measures.

To continuously improve and increase the implementation of mitigation activities, a high level of technical capacity and financial institution support is required, the main activities to be undertaken under this component will lead to the following outputs:

Output 3.1: Strengthen the technical capacity of the working groups

Output 3.2: Data collection and analysis of relevant information regarding the mitigation actions for Energy, Industry, Agriculture, Forest and Waste sectors

Output 3.3: Mitigation actions being developed described, including name, sector, coverage, goals, objectives, methodologies, and mitigation potential estimates

Output 3.4: Investigate the effects of the mitigation actions on other sector

Output 3.5: Conduct a Cost Benefit Analysis (CBA) of the mitigation actions being developed

Output 3.6: Support Thailand in development of its Nationally Appropriate Mitigation Action (NAMA) and (Intended) Nationally Determined Contributions

Output 3.7: Chapters on: 'Information on mitigation actions and their effects, including associated methodologies and assumptions' prepared

4. Domestic Monitoring, Reporting and Verification

Thailand has announced its national NAMA and is currently working out its NAMA and MRV framework. In FBUR the national NAMA and framework for MRV was described as proposed by the government. SBUR will help institutionalize and put in place the MRV system proposed in the FBUR. The domestic MRV System has been developed and moved forward by TGO for implementing in the energy, industry, agriculture and waste sectors. An MRV network has been established, relevant research, study and workshops have been conducted to establish the MRV institutional framework in accordance with the National NAMA and as reported in FBUR. Towards domestic MRV development, the required implementations and processes are, for example, to maintain long-term MRV institutional framework, join international cooperation to support MRV research and development, and practically apply MRV system to key sectors. Initially the MRV framework will focus on the energy sector, in line with the national NAMA. However, the aim is to set up an MRV institutional framework covering several sectors and for the long term. SBUR will support establishing this MRV framework as proposed under FBUR and support building the institutional capacities and cooperation mechanisms.

The main activities to be undertaken under this component will lead to the following outputs:

Output 4.1: Awareness raising and identification of the different options and possibilities for the domestic MRV according to national circumstances and capacity and taking into account the different nature of the mitigation actions, as identified in FBUR

Output 4.2: Chapters on 'Information on domestic measurement reporting and verification' prepared

D. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT: The project will enhance the number of national experts which are exposed to the capacity building process so as to take care of staff movements, promotions and other unforeseen circumstances that may crop up during the preparation of future BURs. In addition, capacities of staff that is already involved in preparation of BURs/TNC will be enhanced, to meet the increasing requirements in terms of estimating GHG emissions and planning of mitigation activities following the Paris Agreement. The approach will be that of training of trainers whereby trained members will be required to impart skills further to their counterparts/colleagues. SBUR aims to build on what has already been achieved under TNC and FBUR. SBUR will use the already existing TNC project management unit and it will be implemented together with TNC to allow for synergies. The SBUR will be prepared as a summary of parts of Thailand's Third National Communication (TNC).

E. DESCRIBE THE BUDGETED M&E PLAN:

The project will be monitored through the following M&E activities. M&E activities of SBUR will be synchronized as much as possible with the TNC M&E activities.

Project start:

A Project Inception workshop will be held within the first 3 months of project start with stakeholders that have roles in the project organization structure, UNDP country office and ONEP and where feasible UNDP regional technical policy and programme advisors as well as other stakeholders. The Inception workshop is crucial to building ownership for successful project implementation and to plan the project and first year detailed work plans. An Inception workshop report is a key reference document and will be prepared and shared with all participants to formalize agreements and plans agreed during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Executive Snapshot.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Bi-annually:

Status Survey Questionnaires to indicate progress and identify challenges as well as technical support needs will be carried out twice a year.

Periodic Monitoring:

Day to day monitoring of implementation progress will be the responsibility of the Project Coordinator, who will serve both the coordinating and technical role of the TNC and SBUR project.

Periodic monitoring of implementation progress will be jointly undertaken by the ONEP and UNDP-CO through quarterly meetings with the project proponent.

End of Project:

During the last three months, the project team will prepare a brief terminal report. This brief report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved.

Learning and knowledge sharing: Results from the project will be documented on a regular basis, disseminated within and beyond the project intervention zone (Thailand, NCCC, UNDP CO) through existing information sharing networks and fora in country and within the UNDP and UNFCCC.

Audit clause:

Audit on project will follow UNDP Financial Regulations and Rules and applicable Audit policies.

F. EXPLAIN THE
DEVIATIONS FROM
TYPICAL COST
RANGES (WHERE
APPLICABLE):

N/A.

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).

NAME	POSITION	MINISTRY	DATE
Dr. Kasemsun	Permanent Secretary	MINISTRY OF NATURAL	06-20-2016
Chinnavaso		RESOURCES AND	
		ENVIRONMENT	

B. CONVENTION PARTICIPATION

CONVENTION	DATE OF RATIFICATION/	/ NATIONAL FOCAL POINT	
	ACCESSION		
	(mm/dd/yyyy)		
UNCBD	10/31/2003	OFFICE OF NATURAL	RESOURCES AND
		ENVIRONMENTAL POI	LICY AND PLANNING
UNFCCC	12/28/1994	OFFICE OF NATURAL	RESOURCES AND
		ENVIRONMENTAL POI	LICY AND PLANNING
UNCCD	03/07/2001	DEPARTMENT OF LAND DEVELOPMENT	
STOCKHOLM CONVENTION	01/31/2005	POLLUTION CONTROL DEPARTMENT	
	DATE SIGNED	NATIONAL FOCAL	DATE OF
	DATE SIGNED (MM/DD/YYYY)	NATIONAL FOCAL POINT	DATE OF NOTIFICATION
			NOTIFICATION
			NOTIFICATION UNDER ARTICLE 7 TO
			NOTIFICATION UNDER ARTICLE 7 TO THE MINAMATA
MINAMATA CONVENTION			NOTIFICATION UNDER ARTICLE 7 TO THE MINAMATA CONVENTION
MINAMATA CONVENTION	(MM/DD/YYYY)	POINT	NOTIFICATION UNDER ARTICLE 7 TO THE MINAMATA CONVENTION SECRETARIAT

C. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies⁶ and procedures and meets the standards of the GEF Project Review Criteria for Climate Change Enabling Activity approval in GEF 6.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	E-mail Address
Adriana Dinu,	1 1	July, 1, 2016	Yamil	+1-212-	yamil.bonduki@undp.org
Executive	-ASMM		Bonduki,	906-6659	
Coordinator,			Programme		
UNDP-GEF			Manager,		
			UNDP		
			(Green-		
			LECRDs)		

⁶ GEF policies encompass all managed trust funds, namely: GEFTF, LIDCF, and SCCF