# Project Progress Report (2014-2016)

The Third National Communication and Biennial Update Report to UNFCCC

### 1. Summary

The Third National Communications and Biennial Update Reporting to the United Nations Framework Convention on Climate Change project with Global Environment Facility funding supports Thailand to prepare two national reports to respond to that international requirements that Thailand commits. With the existing institutional arrangement, Thailand reviews its circumstances, develops a robust framework for GHG inventory, mitigation options, vulnerability and adaptation, and identifies challenges.

Project key achievements to date:

- GHG inventory developed for 2000-2013,
- Potential mitigation options for economic sectors identified.
- The First Biennial Update Report (FBUR) submitted to the United Nations Framework on Climate Change (UNFCCC) in December 2015.
- Country vulnerability and adaptation potential assessed.
- Information collected, analysed for the TNC.

# 2. Project Information

The four-year project on "Third National Communications and Biennial Update to the United Nations Framework Convention on Climate Change (UNFCCC)", referred hereafter as TNC/BUR, is designed to assist Thailand in the preparation for submission of its First Biennial Update Report (BUR) and the Third National Communication (TNC) to UNFCCC. The project is funded through contributions from the Global Environment Facility (GEF), the Royal Thai Government (RTG) and the United Nations Development Programme (UNDP). Office of Natural Resources and Environmental Policy and Planning (ONEP), the Ministry of Natural Resources and Environment (NRE) in its capacity as the UNFCCC National Focal Point of Thailand acts as the Executing Agency to coordinate and implement the project activities.

It is expected that this project will help Thailand to better prepared to address climate change and environmental security issues through the enhancement of national capacity and policy readiness.

#### 2.1. Project at a Glance

Project Title:	
UNDP Award ID	00079406
UNDP Project ID	00089390
Project Duration	April 2014-April 2018
Reporting Period	April 2014 – December 2016
Total Approved Project Budget	USD 1,552,000
Participating UN agencies	UNDP
Implementing Partners/	Office of Natural Resources and Environmental
National collaborating agencies	Policy and Planning (ONEP), Ministry of Natural
	Resources and Environment, Thailand

International collaborating agencies	N/A
Total cost-sharing third parties	GEF—USD 852,000
	RTG—USD 700,000 (in kind)
UNDP Contact officer	Ms. Sutharin Koonphol, Ph.D.
Project Manager	Ms. Amornwan Resanond, Ph.D.
Project website	N/A

#### 2.2 Project Objectives

Project objectives are:

- Enable Thailand to prepare its TNC and the First BUR submitted to UNFCCC.
- Strengthen the cooperation between Thailand and other Parties to achieve the objective of UNFCCC, particularly the decision 17/CP7 and 2/CP7
- Enhance public awareness and knowledge on climate change
- Integrate the preparation process of TNC and BUR and mainstream climate change into the sustainable development process of Thailand

The TNC/BUR project would provide the following outputs:

- Updated GHG inventory (2000-2013) and improvement of GHG inventory system
- Improved V&A assessment to deal with risks of climate change, climate variability and extreme weather events
- Improved analysis and national capacity on mitigation options
- Updated information on national circumstances, other relevance information and constraints and needs, including public awareness on the relevance BUR and TNC
- The First BUR submitted to UNFCCC by the end of 2015
- The TNC submitted to UNFCCC by the end of 2017

# 2.3 Project Outcomes

The outcomes of the TNC/BUR project are:

- Outcome 1: Updated GHG inventory and improvement of GHG inventory system
- Outcome 2: Improved V&A assessment approaches and management
- Outcome 3: Improved analysis and national capacity on mitigation options
- Outcome 4: Updated information on national circumstances, other relevant information for BUR and TNC
- Outcome 5: The first BUR of Thailand and capacity building on NAMA, MRV and national registry system
- Outcome 6: TNC-BUR Reports' preparation, translation, and publication

#### 3. Activity Implementation Progress

This section accounts the progress of activities from the beginning of project in April 2014 to December 2016.

#### 3.1 Institutional Arrangement

The first-year activities involved necessary project arrangements which included setting up the national TNC/BUR team, establishment of the sectoral Working Groups (WG), and the Project Board (PB). Stakeholders involvement has been through a close consultation with the five Working Groups and the Project Board which have a mandate to provide activity data, necessary support and direction to the study team, and approve project outputs. Key achievements are:

- Establishment of the PB on 13 March 2014. PB comprises of 15 member organizations and 2 individual experts and chaired by the Secretary General, ONEP.
- Establishment of Five Sectoral WGs including Energy, Forestry, Agriculture, Forestry and Other Land Use (AFOLU), Industrial Process and Product Use (IPPU) and Waste
- One national study team, comprising of two-sub teams of researchers:
  - GHG inventory and mitigation team is a consortium of 4 universities led by Sirindhorn International Institute of Technology (SIIT). See details in Section 4.
  - Vulnerability assessment and adaptation (V&A) is responsible by the faculty of Engineering, Chulalongkorn University.

# 3.2 Project Management and Oversight

During the first half of project period, the TNC/BUR project is designed to be implemented and in complementarily with the UNDP Low Emission Capacity Building Project (LECB). This is because ONEP is the implementing partner and the projects share the same Project Steering Committee and the National Climate Change Committee. The Five Sectoral WGs have been set up to provide and review activity data as well as relevant emission factors. After the review of PB, findings and the draft final TNC and BUR reports will be reported to the Technical and GHG Database Sub-Committee for review. The National Committee on Climate Change Policy (NCCC) will have the final review and approve the reports prior to the submission to UNFCCC.

Summary of project management activities are:

- 1 Project Board meeting in 2015 and 3 meetings in 2016.
- 10 sectoral working group meetings in 2015 and 5 meetings in 2016.

With approval from the Project Board and the Committees, the year 2011 and 2013 is selected to be the inventory year for the First BUR and TNC respectively. The First BUR was endorsed by the National Climate Change Committee and submitted to UNFCCC in December 2015.

# 3.3. Work Progress and Project Status

#### Deliverables

- The Progress Report 1 (GHG Inventory 2000-2011) in June 2015
- The Progress Report 2 (GHG Mitigation) in August 2016
- The Progress Report 3 (GHG Inventory 2000-2013 and Mitigation) in October 2016
- The submission of the First Biennial Update Report to UNFCCC in December 2015. The inventory year is 2011.
- Vulnerability and Adaptation
  - o The Inception Report on 25 December 2014
  - o The First Progress Report on 11 August 2015
  - o The Second Progress Report on 10 February 2016
  - o The Third Progress Report on 7 September 2016

# Summary of Progress and status

# Outcome 1: Greenhouse Gas Inventory

The national GHG inventory for 2000-2013 is developed based on the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, and Good Practice for Land Use, Land-Use Change and Forestry, and applied the 2006 Guidelines where possible. Development status is shown in **table 1**.

Sc	ope	Status	Remarks
1.	Review COP' decisions in relation to GHG inventory and conclude the choices of methodology	Completed	The revised 1996 IPCC Guidelines for National GHG Inventory with supplementary Good Practice is selected.
2.	Collect activity data through a stakeholder participation process and recommend rooms for improvement for data collection	Completed	Participation process is through the five WGs. Recommendations for each sector are provided in the report.
3.	Make decision on choice of emission factors EF	Completed	Default EFs are used. Tier 2 EFs are used where possible
4.	GHG inventory compilation for 2005-2013.	Completed.	Base year 2011 is for FBUR and 2013 for SBUR
5.	Analyse and present GHG inventory by sources and sinks, and by gases.	Completed	
6.	Perform uncertainty analysis	Completed	
7.	Perform quality assurance and quality control	Completed	
8.	Recalculation of previous GHG inventory years due to changes in methodologies	Completed	It is done for 2000-2004 and compared with the estimates in the Second National Communication (SNC).
9.	GHG inventory development used the UNFCCC software	Completed	
10.	Train the WGs and organize focus groups discussions with relevant stakeholders	Completed	
11.	Develop GHG inventory report	Completed	Sectoral GHG inventory report is completed. Yet to synthesize.

Note: GHG inventory is subject to a review by the working groups and the Project Board.

# Outcome 2: Vulnerability Assessment and Adaptation (V&A)

The study on V&A covers development of impact and V&A frameworks, baseline-socio economic scenarios, climate modelling, risk-exposure and sensitivity, extreme events and disaster management, V&A and measures. Project development status is shown in **Table 3**.

Scope	Status	Remarks
Develop impact framework and V&A framework	Completed	
<ol> <li>Develop baseline socio-economic scenarios</li> </ol>	Completed	3 scenarios developed
<ol> <li>Develop climate models for climate variables analysis—spatial and temporal resolution, mean and/or climate variability</li> </ol>	Delayed	<ul><li>3 models developed:</li><li>GFDL-CL3,</li><li>IPSL-CM5A-MR</li><li>MRI-CGCM3</li></ul>

Sc	ope	Status	Remarks
4.	Identify risks, exposures and sensitivity for 4 sectors	Completed	4 sectors are water resources, agriculture, human settlement, and health
5.	Analyse probability of extreme events and propose disaster risk management	On-going as planned	<ul> <li>Extreme events and risks on:</li> <li>water for agriculture shortage</li> <li>flood</li> <li>water for production and consumption shortage</li> <li>heat stoke</li> </ul>
6.	Coping capacity	On-going as planned	
7.	Vulnerability assessment	Completed	Assessment for 4 sectors: water resources, agriculture, human settlement, and health
8.	Propose adaptation measures for short, medium and long-terms	On-going as planned	
9.	Stakeholder participation	On-going as planned	

# Outcome 3: Greenhouse Gas Mitigation

The study covers the review of Thailand policy, measures and technology that related to GHG mitigation options for all IPCC sectors. The consulting team presented the results of the study to the Working Group on 1-3 June 2016 and to the TNC-BUR Board on 27 September 2016. Development status is shown in **Table 2**.

Sco	ope	Status	Remarks
1.	Review mitigation measures	On-going	
2.	Identify base year for GHG emission projection	Completed	
3.	GHG emission base line projection up to 2050	On-going as planned	Only for energy, IPPU and
4.	Screening of mitigation options	On-going as planned	waste. No projection and
5.	Mitigation scenarios	On-going as planned	mitigation analyses for
6.	Impact assessment of proposed mitigation options	On-going as planned	AFOLU
7.	Mitigation strategies	On-going as planned	

Outcome 4: Updated Information on national circumstances, other relevant information for BUR and TNC

Sc	ope	Status	Remarks
1.	Information on national	Delayed	The task will be resumed in
	circumstances and other relevant		2017
	information		

# Outcome 5: The First BUR of Thailand and capacity building on NAMA, MRV and national registry system

Sc	ope	Status	Remarks
1.	Preparation of the First BUR	Completed	FBUR submitted to UNFCCC
			in December 2015
2.	Capacity building on NAMA, MRV	On-going	
	and national registry		

## Outcome 6: TNC-BUR Reports' Preparation, Translation, and Publication

Sc	ope	Status	Remarks
1.	FBUR prepared, translated and published	Completed	
2.	TNC prepared, translated and published	On-going	TNC is under preparation

# 3.4 Stakeholder Participation and Involvement

There are 2 tiers of stakeholder involvement:

- Project level: Stakeholder participations during 2014-2016 were through the focus group discussions, the Five WGs and the PB for inputs and feedbacks on GHG inventory, GHG emission projection, mitigation options, and V&A studies.
- National level: Participation was through the National Committee on Climate Change Policy for its authorization to submit the First BUR to UNFCCC.

# 4. Project Management and Oversight

#### 4.1 Human Resource Management

*Staffing:* There have been no major changes in the technical staffing during 2014-2016. A complete list of staff is as follows:

Name/Title	Title	Status		
GHG Inventory/ Mitigation Cons	GHG Inventory/ Mitigation Consultants			
Dr. Bundit Limmeechockchai, Sirindhorn International Institute of Technology (SIIT)	GHG Inventory Coordinator, Energy	Contracted (June2014-December 2016)		
Dr. Ladawan Puangchit, Kasetsart University	GHG Inventory/Mitigation, Forestry	Contracted (June 2014-June 2017)		
Dr. Patthra Pengthamkeerati, Kasetsart University	GHG Inventory/Mitigation, Agriculture	Contracted (June 2014-June 2017)		
Dr. Kraichat Tantrakarnapa, Mahidol University	GHG Inventory/Mitigation, IPPU	Contracted (June 2014-June 2017)		
Dr. Chalor Jarusutthirak, Kasetsart University	GHG Inventory/Mitigation, Waste	Contracted (June 2014-June 2017)		
National circumstances and Other info				
Dr. Niramon Sutammakid,	National circumstances and other info	Under contractual process*		

Thammasart University		(January-December 2017)	
V&A Consultants		Contracted	
		(June2014-December 2016)	
Dr. Sucharit Koontanukulvong, Chulalongkorn University	V& A team leader		
Dr. Pongsak Suttinon	V&A expert		
Dr. Piyatida Ruengrasamee	V&A expert		
Ms. Wichuta Hemsatien	Project Coordinator		
ONEP			
Dr. Phirun Saiyasitpanich	Director, Climate Change  Management and Coordination Office	Implementing partner	
Dr. Natthanich Asvapoositkul,	Chief of Climate Mechanism Policy and Development Section, Climate Change Management and Coordination Office	Implementing partner	
UNDP			
Sutharin Koonphol	Program Specialist, Inclusive Green Growth and Sustainable Development (IGSD),Team Leader	UNDP-permanent	
Sakchai Ovanupat	Project Coordinator	service contract expired in October 2016	
Amornwan Resanond	Project Manager	service contract	
Kiatisak Agsornwong	Project Assistant	Service contract	

Note: \* contractual arrangement will be under the SBUR budget

# 4.2 Monitoring and Evaluation

- Day to Day: ONEP as the implementing partner together with UNDP's Project Coordinator jointly managed day-to-day operations.
- Periodic monitoring:
  - o *Project monitoring:* It is performed by the Project Board
  - o Financial audit: Deloitte performed internal financial audit at SIIT
    - First audit report dated 25 March 2016. No major issue found.
    - Second audit report dated 4 November 2016. No major issue found.
    - Spot check at SIIT by Deloitte in December 2016. No major issue found.
- *Budget control:* regular project monitoring and budget control is performed by UNDP during the reporting period.

# 4.3 Risks/ Constraints/ Mitigation Measures

Risk of the TNC/BUR project is low because of the project management structure allows the implementing partner, ONEP and the Project Board to monitor the progress periodically. Researchers in the national team are experienced and capable. Moreover, change in political status in Thailand provided no impact to the project owing to the government has paid attention to the progress of climate change activities as it is committed in the national policy documents and international agreements.

No high risk is perceived for the next quarters.

# 4.4 Communication and advocacy

N/A

### 5. Financial Management

Financial status of the TNC/BUR project is shown in below.

Financial Status	
GEF Contract Budget	\$865,004.00
2014 Recorded Expenditure	\$126,267.48
2015 Recorded Expenditure	\$179,681.12
2016 Recorded Expenditure	\$224,691.66
Balance	\$334,363.74

## 6. Key expected outputs in the next quarter (Q1 2017)

During the first quarter of 2017 (January-March 2017), UNDP anticipates the following key activities, including events

- Submission of the draft final report for V&A in January 2017
- Submission of the progress report on mitigation options in January 2017
- Focus group discussions in relation to GHG inventory and mitigation not later than March 2017
- Submission of the final draft report for GHG inventory and mitigation in March 2017

#### 7. Conclusion

Key achievements to date:

- Institutional arrangement established;
- GHG inventory for 2000-2013 developed;
- · Potential mitigation options for economic sectors identified;
- The First Biennial Update Report (FBUR) submitted to the United Nations Framework on Climate Change (UNFCCC) in December 2015; and
- Information collected, analysed for the development of TNC.

In 2017, Thailand will synthesise all studies in relation to national circumstances, GHG inventory, mitigation actions and their effects, vulnerability and adaptation, constraints and gaps, related financial, technical and capacity needs into the TNC for the submission to UNFCCC by the end of 2017.

# 8. Final Note: Project Preparation for the Second Biennial Update Report (SBUR)

During Q3 2016, ONEP and UNDP prepared a project document for Thailand's Second Biennial Update Report project which builds upon the work progress carried out in the TBC/BUR project. Project duration is scheduled to be in January 2017 to April 2018 with total budget of \$452,000 (\$352,00 budget from GEF and \$100,000 in kind contribution from the Thai Government). The SBUR project will be executed under ONEP, as implementing partner. No change in institutional arrangement and the consultant teams is anticipated. In Q4 2016, UNDP is preparing the virtual Local Project Appraisal Committee (LPAC) survey in December 2016 and hopes to submit to UNDP Global Support Unit in January 2017.