

# THAILAND

## INDUSTRY GHG REDUCTION ROADMAP



GGGI Project Results Report



### OVERVIEW

Owning division	GGPI
Country / region / Global implementation	Thailand Upper Middle Income Country (UMIC)
Thematic area	Multi-sectoral
Project start date	Q1 2015
Funding source	Earmarked Germany (BMUB)
Approved budget for 2015-16	USD 1,303,343
% of budget disbursed	64%

### HIGHLIGHTS

- Completed the Industry GHG Reduction Roadmap for three industrial sub-sectors with strong buy-in from government and industry.
- The Thai Government is planning to incorporate the Roadmap into their NDC Action Plan.

### CONTEXT

Rapid economic growth in Thailand has led to increases in greenhouse gas (GHG) emissions and coupled with effects of climate change it has come at a cost to the natural environment. In response, Thailand has a number of high level plans that address climate change mitigation, including:

- Climate Change Master Plan 2015-2050
- Nationally Determined Contribution (NDC) commitment to reduce GHGs by 20-25% in 2030 compared to the business-as-usual (BAU) level.

Specifically, the Climate Change Master Plan provides a high-level framework and mechanism for an effective response to climate change adaptation and mitigation challenges across all sectors of the economy. In planning the implementation of the Master Plan, the Government of Thailand (GoT) aims to drive the participation of every sector. However, the GoT has stopped short of outlining quantitative targets for emissions reduction for individual sectors or for the economy as a whole because of the absence of a credible dataset on which to base such targets.

### OVERALL OBJECTIVE

Assist the government to implement the Climate Change Master Plan by developing a practical and implementable roadmap for GHG reduction in selected three industrial sub-sectors of the Thai economy. The implementation of the roadmap will lead to reduction in GHG emissions and negative environmental impacts from industrial development.

## RESULTS FOR 2015-16

### OUTPUT 1.1

STATUS **ACHIEVED**

#### Develop a diagnostic report on GHG emissions

- Developed the Diagnostic Report in February, 2015 which serves as a foundation of the subsequent activities during the biennium. The report discusses the economic characteristics of Thailand's manufacturing sector, related national policies, GHG emissions and lays out a list of criteria in order to choose 3 high potential sub-sectors. This was followed by a series of consultations with relevant stakeholders as well as the Project Steering Committee (PSC) members, to finalize the report and the selection of three sub-sectors (palm oil, frozen seafood and automotive parts).

### OUTPUT 1.3

STATUS **ACHIEVED**

#### Enhance capacity for coordination and technical/economic analysis within the government and private sector in relation to GHG inventories, emissions projections, mitigation opportunities and economic impact of GHG mitigation

- The Project Steering Committee (PSC), consisting of high-ranking officials from relevant agencies, private sector, academia, and civil society, was set up to oversee, provide strategic and technical advice, and validate assumptions and results of the project.
- Organized the first technical workshop in May, 2015 which included more than 70 participants from government, the private sector, civil society and international organizations, and provided them with an opportunity to identify key barriers and solutions to implementing GHG reduction measures. The outputs from this workshop were analyzed and used as key information in the economic and technical analysis report. Following this, the GHG Reduction Roadmap Launching Event was held in April, 2016 with nearly 100 participants from government, private sector, academia, and civil society.
- Organized a series of three capacity building workshops in Samut Sakorn, Chonburi, and Krabi province to strengthen the capacity of the industrial sector. This was followed by the Project Closing Seminar in July, 2016 to summarize the project achievements and share the lessons learned. Overall, the project has strengthened the capacity of 450 persons from both public and private sectors, including academic institutions.

### OUTPUT 1.2

STATUS **ACHIEVED**

#### Develop the GHG reduction roadmap for three industrial sub-sectors

- Completed the GHG Reduction Roadmap Report in January, 2016. As a basis for the Roadmap, the Emissions Projection Report and the Technical and Economic Analysis Report were completed in September, 2015.
- The Emissions Projection Report assessed the current level of GHG emissions from the three industrial sub-sectors and projected GHG emissions up until the year 2050.
- The Technical and Economic Analysis Report identified potential GHG reduction measures and technologies and conducted technical and economic analyses of those measures.
- It was noted that the effective implementation of the Roadmap could result in approx. 3-5 million tons of carbon dioxide equivalent (MtCO<sub>2</sub>e) reduction in the three industrial sub-sectors of focus, leading to around THB 4,300 million or USD 123 million of savings. The implementation of similar activities across the manufacturing sector can lead to the reduction of 23-37 MtCO<sub>2</sub>e, or 4-7% of the country's emissions. This could potentially save THB 32,000 million for the Thai economy.

### OUTCOME 1

STATUS **ACHIEVED**

#### GHG reduction roadmap facilitating the implementation of the Thai Climate Change Master Plan is formally adopted by the Government

- The Roadmap was endorsed by the Project Steering Committee and co-signed by ONEP's Secretary-General and GGGI.

### ADDITIONAL RESULTS

- The Government of Thailand has expressed interest to replicate the approach to developing the GHG Reduction Roadmap to other industrial sub-sectors.

## PARTNERS

### LOCAL

- Office of Natural Resources and Environmental Policy and Planning, Ministry of Natural Resources and Environment.
- Through the Project Steering Committee (PSC), the project also involved Office of the National Economic and Social Development Board (NESDB), Thailand Greenhouse Gas Management Organization (TGO), Ministry of Energy, Ministry of Industry, Federation of Thai Industries, and other relevant stakeholders from related ministries, academic institutions, and civil society.

## LESSONS LEARNED

- **Inadequate data availability:** Given the fact that relevant ministries/government agencies have different definitions and approaches for data categorization, necessary data for the project in many cases were scattered and were not possible to be effectively and efficiently utilized. In a few cases, data was not available or not publicly disclosed due to sensitivity and confidentiality issues. To address this challenge, the project needed to work closely with experts and PSC to overcome the data gap. Over the course of data compilation, the data mapping was developed and thus described in the project's reports. This information will be very useful for similar work in the future.