## A summary of the Result of

## Integrating Climate Actions into the Eastern Economic Corridor: Toward Low Carbon Industry The Fiscal Year 2019-2020

Intense climate change is accelerating at present, bringing humans, natural resources, the environment, and the economy of many countries dangerously close to devastation. Climate-related disasters pile up with unusual intensity and frequency such as constant sea level rise, intense storm surges, and frequent newly-borne diseases. Fossil fuels and energy used from human activities, individual consumption, production activities, waste management, agriculture, deforestation, and land-use changes are the causes of enormous GHG emissions into the atmosphere. Therefore, all stakeholders, especially the carbon-intensive industry should participate in the GHG emissions reductions activities.

To accelerate economic growth in the next 20 years, the Thai government has set a strategy to promote investment, trade, production, and services in the Eastern Economic Corridor (EEC). The EEC was designated as a sandbox (pilot area) for various economic, social, and environmental development initiatives. In terms of production, more than 37% of total factories in Thailand are located in the EEC area. Thus, this area possesses a high GHG reduction potential and it could be developed as a model for low-carbon industrial cities.

In 2018, Thailand Greenhouse Gas Management Organization (Public Organization) or TGO initiated "Integrating Climate Actions into the Eastern Economic Corridor: Toward Low Carbon Industry Project". During Fiscal Year 2019-2020, TGO further developed an expansion phase of the project to

- Provide policy recommendations and action plans to promote the low-carbon industry in the EEC area.
- (2) Develop industries in the EEC toward "low-carbon industry" by encouraging factories to report their carbon footprint of organization (CFO) or carbon footprint of product (CFP) or developed a Thailand voluntary emission reduction (T-VER) project.
- (3) Develop and improve GHG Mitigation Information Platform to disseminate GHG emission reduction activities and other related data in the EEC to government and private sectors, including all interested parties. In addition, low-carbon industry self-assessment criteria were developed to assess industrial readiness for becoming a low-carbon industry.

Project deliverables during FY 2019-2020 can be summarized as follow:

(1) Policy recommendations and action plans during 2021-2030 were developed for promoting the low-carbon industry in the EEC area. The industries in the action plan were categorized into 3 groups (i.e. First S-curve, New S-curve, and outside S-curve) following the Thai government strategy. Methodologies used in formulation of policy and action plan were 1) sending questionnaires to collect data and interview key stakeholders, 2) reviewing data from annual energy management report (Ministry of Energy), 3) surveying 282 factories that participated in the low-carbon industry self-assessment on the GHG Mitigation Information Platform, 4) reviewing of policy and legal documents relating to industry and energy development, as well as GHG mitigation policy at the national and local level. All data were analyzed and the policy recommendations and action plans were formulated for promoting low-carbon industries in the EEC area. Policy and action plan consists of 4 strategies as mentioned below:

1 <sup>st</sup> Strategy	• Promoting GHG emission reduction in the S-curve industry.
2 <sup>nd</sup> Strategy	• Developing economic incentive mechanisms for GHG management and emission reduction in the EEC area.
3 <sup>rd</sup> Strategy	• Supporting production and utilization of low-carbon materials, equipment, and machinery.
4 <sup>th</sup> Strategy	• Disseminating knowledge on GHG management and emission reduction activities, including a sustainable climate change adaptation.

(2) 60 factories from 3 provinces in the EEC area (i.e. 34 factories in Rayong, 22 factories in Chonburi, and 4 factories in Chachoengsao) participated in the project and implemented GHG management and emission reduction activities, initiated by TGO. Among these factories, 44 factories calculated and reported carbon footprint of organization (CFO), 11 factories reported carbon footprint of product (CFP), and 7 factories developed T-VER projects.<sup>1</sup>

(3) GHG Mitigation Information Platform was established to disseminate the project information, knowledge, and information relevant to GHG emission reduction such as low-carbon technologies, number, and name of factory registered to CFO/CFP/T-VER scheme with TGO. The platform has geographic

<sup>&</sup>lt;sup>1</sup> Some factories simultaneously implemented two mechanisms

information technology, providing useful information in the EEC such as land use planning, transportation routes, basic infrastructure (i.e. water and electricity system), forest and agricultural area.



Significant low-carbon industrial technology database was developed from 152 EEC-located factories (42 factories in the First S-Curve, 1 factory in the New S-Curve, and 109 factories outside the S-Curve) and it can be divided into 6 groups as follows:

- Lighting System Technology
- Air Conditioning Technology
- Refrigeration Technology
- Motor Technology
- Boiler Technology
- Industrial Furnace and Oven Technology

For more information, please visit GHG Mitigation Information Platform (http://lowcarboneec.tgo.or.th).