Understanding Carbon Footprint for Organizations (CFO): A Strategic Pathway Toward Low-Carbon Industry in Thailand

Introduction

Organizations are becoming increasingly important in lowering greenhouse gas (GHG) emissions as the international community steps up efforts to address the escalating climate crisis. Organizations need to improve their understanding of the sources of GHG emissions in order to manage them efficiently and determine the most effective reduction strategies (Eurostat, 2020). Calculating the carbon footprint of an organization is one way to evaluate its greenhouse gas emissions.

We at the Eco-Industry Research and Training Centre (EI-RTC) think that knowledge, data, and accountability are the first steps towards a sustainable industrial transformation. As part of our goal to improve research-based policy and capacity-building for environmental innovation, we are launching **a new Policy Lab on Carbon Footprint** to help Thai industries, academic partners, and public stakeholders make the shift to climate-smart operations.

What is CFO?

A methodical way to measure greenhouse gas emissions from organizational operations, including both direct and indirect emissions, is the Carbon Footprint for Organizations (CFO). This methodology is based on globally accepted standards, such as the Greenhouse Gas Protocol, which was developed by the World Business Council for Sustainable Development and the World Resources Institute (WRI & WBCSD, 2004; ISO, 2018), and the ISO 14064-1 standard. By allowing organizations to measure, monitor, and report emissions in a consistent and credible manner, these tools form the basis for Environmental, Social, and Governance (ESG) reporting and decarbonization planning.

Types of emissions

Three emission scopes are used to categorize a carbon footprint (WRI & WBCSD, 2004):

Scope 1: Direct emissions of greenhouse gases from sources that the organization owns or controls, such as burning fuel, commercial vehicles, and industrial processes.

Scope 2: Indirect greenhouse gas emissions brought on by the generation of steam, heat, cooling, or acquired power.

Scope 3: Other indirect emissions that come from within the organization's value chain, such as waste management, business travel, product and service procurement, and product use.

Organizations can identify key areas for intervention and obtain a comprehensive understanding of their overall carbon footprint by taking these scopes into account.

CFO's Importance to Thai Industry

Thailand's industrial sector is one of the primary causes of the nation's GHG emissions. With increased global concern for supply chain transparency and environmental accountability, Thai businesses can maintain their sustainability and competitiveness by implementing carbon foot printing techniques. With a certification system and technical requirements, the Thailand Greenhouse Gas Management Organization (TGO) provides the Carbon Footprint for Organization (CFO) label to companies that want to disclose and cut emissions (TGO, 2023). Companies that want to do their part to combat climate change can also sign up for the Thailand Voluntary Emission Reduction Program (T-VER), which allows them to register and validate emission reduction projects for the issuance of carbon credits in accordance with national standards.

Alignment with the Sustainable Development Goals (SDGs)

A number of UN Sustainable Development Goals are directly impacted by the CFO initiative such as

- SDG 9: Industry, Innovation, and Infrastructure
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action
- SDG 17: Partnerships for the Goals

These global objectives offer a framework for coordinating carbon reduction plans with sustainable and inclusive growth.

References

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