A Support System Towards Sustainable Growth Initiatives

As nations globally embark on efforts to ensure humankind activities causes minimum harm or disruption to the environment, many ways have been established to perpetuate sustainable use of resources and practices.

One accepted approach of environmental management that helps to support this sustainable way of doing things is the Life Cycle Assessment (LCA). Life Cycle Inventory (LCI) analysis one of the main phases within LCA modelling work to quantify the material flows, energy flows, and environmental impacts of a given product. The product connotation here includes goods and services.

LCI results is a set of data describing the complex interaction between the product and the environment from cradle-to-grave.

LCI results provides an inventory of all inputs flows from and out back to the environment associated with a product system. Inventory flows include inputs of water, energy, and materials, and releases (i.e emissions and wastes) to air, land, and water apart from the intended outputs of the product system.

LCI Database in Malaysia

The local setup for LCI data support is the Malaysia Life Cycle Inventory Database (MYLCID) which is an output of the Ninth Malaysia Plan. Its ultimate goal is to develop a dynamic database that will support cleaner production and sustainable consumption in the country.

Purpose

MYLCID which is hosted and managed by SIRIM (Environmental Technology Research Centre) provides LCI results (as LCI datasets) for materials, processes and systems pertinent to our country in terms of geographical and technological coverage. The LCI datasets can be utilised to support various initiatives and activities with the aim of evaluating the environmental performance of goods or services.

The common technique of evaluating environmental performance of products – whether goods or services is through the LCA approach. This method is scientific in nature and is widely accepted in prevailing environmental policies and business decision support towards sustainable development. As a pre-requisite and for an efficient and reliable application of LCA, the application must be based on consistent, transparent and quality assured LCI data.

In this context, MYLCID conforms to international life cycle inventory database formats stipulated by the ISO 14048 for the purpose of transparency and unambiguity in data documentation and exchange. This will facilitate businesses, research institutions, governmental agencies, universities in their activities that involve life cycle assessment, eco-design, environmental declaration and a host of other environmental management approaches.