

Advancing life cycle-based sustainability assessments in Sri Lanka

The context

Environmental consciousness of customers and consumers domestically and in important export markets for Sri Lanka is increasing. As a result, demands are raising for environmental product information, standards, certifications and ‘eco-labels’. Due to a lack of awareness, capacity, and data, however, most SMEs in Sri Lanka are currently unable to assess and communicate the environmental performance of their products.

Life cycle thinking is a powerful approach for identifying the most effective interventions towards more sustainable production and consumption. By expanding the knowledge basis and establishing a common digital infrastructure for life cycle-based sustainability assessments, SMEs can benefit from increasing marketability of products, while new insights gained can be incorporated into national policies and priorities for action, for example in the National Export Strategy (NES).

What is Life Cycle Assessment (LCA)?

Life Cycle Assessment (LCA) is an internationally standardized methodology to systematically uncover the main drivers of environmental impacts of products or processes from ‘cradle to grave’, and to quantify improvement potential. As such it is a powerful approach for identifying the most effective interventions towards more sustainable production and consumption.

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Insights gained from LCA might, for example, help vehicle designers understand whether improving fuel efficiency, by switching to (more resource-intensive) lightweight materials, is a good option. But LCA is not limited to products or processes, it is also applicable to measure the environmental footprint of organisations, industries/sectors, consumption patterns, and even nations

As such, LCA provides the foundation for setting the right priorities by measuring resource efficiency, environmental footprint, and ultimately the circularity of our society. The quantification of environmental impacts (or ‘footprint’) from a full life cycle perspective, however, is data-intensive and requires skilled sustainability professionals.

The challenge

The lack of access to reliable and representative data, even for core economic activities, often acts as a significant obstacle to the widespread use and acceptance of life cycle assessment (LCA), especially in many parts of the Global South.



Within this one-year project, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in Sri Lanka, the National Cleaner Production Centre Sri Lanka, and the ecoinvent Association from Switzerland join forces to promote life cycle thinking and strengthen the human capacity, data and digital infrastructure required for life cycle-based sustainability assessments in Sri Lanka.



At the same time, life cycle-based information is becoming increasingly requested across global value chains. This to meet the demands of customers and consumers or even as legal requirements for access to important markets for exports.

Insufficient human capacity and data for LCA (that is, structured and consistent information on the environmentally relevant aspects of activities involved in the supply of a product) can create a barrier to trade, putting exporting nations at a competitive disadvantage.

The objective

The aim of this project is to advance exchange of expertise and raise awareness of life cycle thinking, expand the knowledge basis, and improve access and exchange of data for life cycle-based sustainability assessment in Sri Lanka.

Our approach

These goals shall be achieved by:

- ensuring knowledge sharing between national and international sustainability professionals (including the formation of a national network for LCA experts, practitioners, and stakeholders) through extensive data collection and LCA dataset creation on key economic activities (e.g., for the domestic textile industry).

- by establishing first practical applications, accompanied by a stakeholder dialogue to raise awareness for the relevance and value created by adopting a life cycle approach.
- by enhancing the expertise and experience of local LCA communities, initiatives to establish national data and digital infrastructure (databases) for LCA contribute towards mainstreaming life cycle thinking in public policymaking, business, education/research, and beyond. This, in turn, creates new opportunities to promote sustainable development and innovation, and for a strengthened position in the global marketplace



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GIZ Office Sri Lanka
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www.giz.de

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Text Anika Kiefer

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