SRI LANKAN INDUSTRY'S ENERGY USE AND OPPORTUNITIES FOR REDUCTION

Economic growth, rising industrial activity, and coal use have led to increased greenhouse gas emissions in Sri Lanka. To meet its green goals, future industrial growth must align with decarbonization efforts.

OVERALL INDUSTRIAL EMISSIONS

9.5Mt

(25% of all Sri Lanka's GHG emissions)

(World Bank, 2023)

SRI LANKA'S TOP 4 INDUSTRIES

TEXTILES AND APPAREL

Textiles contribute **20% to Sri Lanka's GDP.** Over a million people – largely women – are employed in textile manufacturing.

(Sri Lanka Export Development Board 2022; World Bank 2023; International Labour Organization 2023)

FOOD AND BEVERAGES

Cultivation of tea, coconut, spices, seafood, fruits, and dairy products contributes **8% to Sri Lanka's GDP**. Over 600,000 people are employed in this sector.

(Sri Lanka Export Development Board 2022; International Food Policy Research Institute 2022)

RUBBER PRODUCTS

A major exporter of natural rubber, this industry contributes **2% to GDP** and employs over 100,000 people.

(Sri Lanka Export Development Board 2022)

CEMENT

The backbone of development, but also a major consumer of coal and fossil fuels, and one of the largest contributors to industrial GHG emissions.

HOW DO THEY USE ENERGY?

Despite limited industry-specific data on energy sources and emissions, we can estimate the environmental impact of Sri Lanka's four main sectors by analyzing the nature of their processes. Tracking the use of biomass across manufacturing sub-sectors is challenging due to the dominance of an informal market and the diverse nature of biomass feedstock.

(GEI analysis based on SLSEA, 2023)

58% BIOMASS

21% FOSSIL FUELS (PETROLEUM & COAL)

21% ELECTRICITY

Top petroleum users (fuel oil, diesel, LPG)

Food & Beverage	27%
Textile & Apparel	25%
Rubber products	3%

(GEI analysis based on data from Ceylon Petroleum Corporation 2023)

GENERATED MOSTLY BY: (IEA 2021)

- 51% OIL + COAL
- 44% HYDROPOWER

Top electricity users

Food & Beverage	21%
Textile & Apparel	17%
Rubber products	10%

(Ceylon Electricity Board 2023)

IS BIOMASS CARBON NEUTRAL?

Calculating biomass emissions is complex. Research increasingly shows that emissions are greater than the amount of carbon absorbed by the materials that make biofuels.

The country aims to generate 70% OF ELECTRICITY FROM RENEWABLES BY 2030 and achieve carbon neutrality by 2050.

STEAM BOILERS USE UP TO 60% OF INDUSTRIAL FUELS

MOTOR SYSTEMS USE UP TO 70% OF INDUSTRIAL ELECTRICITY



POTENTIAL REDUCTIONS

Maintenance, smaller motors and updating components to meet International **Energy Agency standards could reduce energy consumption by 10%.**

Further **REDUCTIONS** could be made by **SYSTEM-SPECIFIC OPTIMIZATION** to

Compressed air	Fan	Pump systems
39%	35%	45%

Source: Hasanbeigi, A., Springer, C., Fernando, S., Dehod, N., Vidanagama, J., Rajaguru, M., & Mendis, R. (2024). Industrial Energy Efficiency and Decarbonization in Sri Lanka. United Nations Industrial Development Organization (UNIDO).

ACCELERATING INDUSTRIES' CLIMATE RESPONSE
SRI LANKA

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