SMEP | Sustainable Manufacturing and Environmental Pollution Programme

Sub-Saharan Africa

SMEP target countries

Senegal:
$ 18%
6%
2 billion US$

Nigeria:
$ 9%   n/a
2 billion US$

Rwanda:
$ 2%   6%
0.4 billion US$

Ethiopia:
$ 6%
n/a
1 billion US$

Ghana:
$ 11%   14%   8 billion US$

Kenya:
$ 9%   n/a   3 billion US$

Democratic Republic of the Congo:
$18%   n/a   n/a

United Republic of Tanzania:
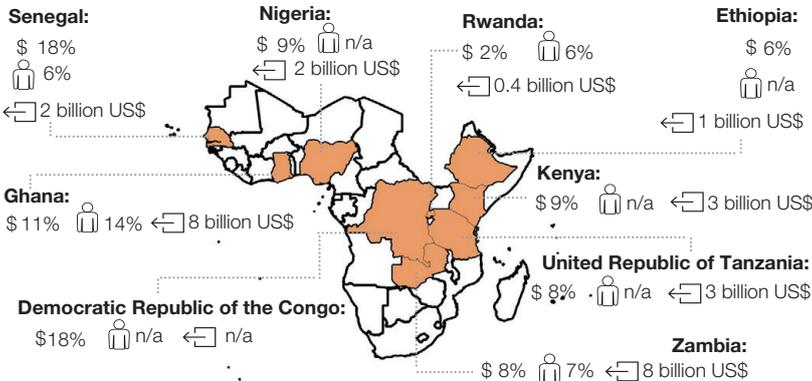$ 8%   n/a   3 billion US$

Zambia:
$ 8%   7%   8 billion US$

$ Manufacturing value added as a percentage of GDP

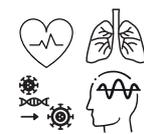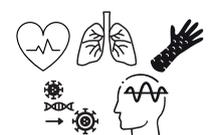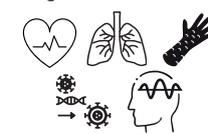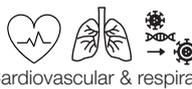Percentage of labour force employed in manufacturing

Manufacturing export value

Averages of available data since 2015. n/a = no data available

Manufacturing in sub-Saharan Africa is promoted through national and regional development policy and championed by the African Union's Agenda 2063. In 2018, the industry contributed on average 10% to Gross Domestic Product (GDP) in SMEP target countries. However, international manufacturing data and academic literature in this region are limited. Furthermore, a significant proportion of the industry is informal meaning it is not captured in formal databases.

Information from international data sets, academic literature, and stakeholder engagement can be combined to identify a number of manufacturing industries of concern that could be causing human health and well-being impacts (as well as degradation of ecosystem services) across the region.

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The impact caused by manufacturing pollution is dependent on production processes, the treatment of waste, contaminant pathways of pollution (by air, water and soil), as well as the characteristics of the exposed population, such as their occupation, age, gender and socio-economic status.

Industry	Key pollutant types	Human health effects	Key pollutant pathways
Food and beverages	Potentially toxic metals, dyes bleaching agents, air pollutants, noise	Cardiovascular & respiratory effects, carcinogenic, neurotoxic effects	Water pollution, soil pollution
Textiles & wearing apparel	Potentially toxic metals, dyes bleaching agents, air pollutants, noise	Cardiovascular & respiratory effects, irritation & inflammation, carcinogenic, neurotoxic effects	Water pollution, air pollution, soil pollution
Chemicals & chemical products	Potentially toxic metals, dyes bleaching agents, air pollutants, noise	Cardiovascular & respiratory effects, irritation & inflammation, carcinogenic, neurotoxic effects	Water pollution, air pollution
Electrical equipment	Potentially toxic metals, dyes	Cardiovascular & respiratory effects, carcinogenic	Air pollution, soil pollution

Interventions

Food and beverages

- Physio-chemical effluent treatment
- Improved energy efficiency of boilers and furnaces through insulation

Textiles and wearing apparel

- Effluent treatment plants
- Cleaner production techniques e.g. efficient water usage or chemical substitution
- Personal protective equipment

Chemicals and chemical products

- Effluent treatment plants
- Personal protective equipment and training on occupational exposure
- Noise control technology (costly)

Electrical equipment

- Emission regulations and pollution standards
- Minimum production capacities to ensure cleaner production
- Cost-effective technologies for soil remediation