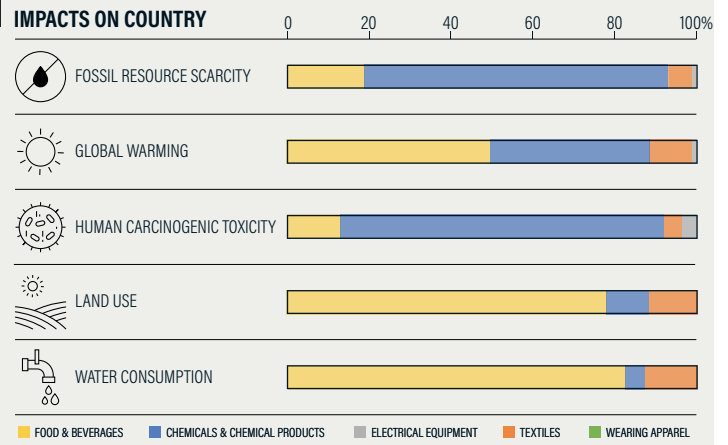


Kenya exported USD 4,4 billion of manufactured products in 2019. This production oriented by foreign markets causes significant pollution impacts at source. A lifecycle analysis of selected manufacturing exports from Kenya reveals various effects on the environmental and human health.

The analysis shows the importance of the food and beverages sector, especially when considering the cradle-to-gate system boundary. In terms of products, processes, and company size, the food and beverages sector is a very diverse sector, but in general, it has the most relevant environmental impacts on energy use, water consumption, solid waste, and wastewater generation.

Food and Beverages sector is selected based on economic relevance, LCA impacts and available data.

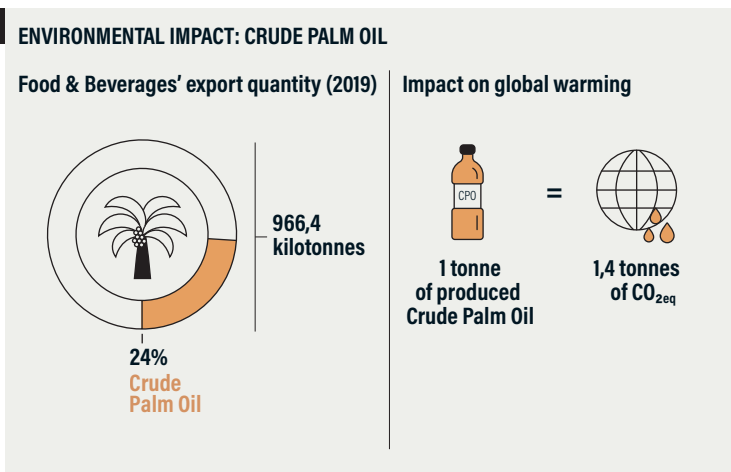


PUBLIC GOVERNANCE : formal and informal arrangements that determine how public decisions are made and how public actions are carried out

Challenges	Achievements	Improvements
<ul style="list-style-type: none"> Limited transparency and information disclosure on signed agreements. Weak implementation, enforcement and compliance of Kenya's National Environmental Policy. Informality. Financial resource constraints have hindered the effective implementation of environmental policies. 	<ul style="list-style-type: none"> Kenya's Constitution, 2010, is a very advanced one. Environmental Management and Coordination Act lists activities that shall undertake a complete environmental impact assessment and submit a report to the respective authority before obtaining any license. Dedicated legal system for procedures and trials of environmental offences. 	<ul style="list-style-type: none"> Policy coherence and coordination, interplay, transparency, and accountability are governance principles that countries shall consider in negotiating and implementing RTAs and BTAs. Environmental information disclosure. Developing governance mechanisms to deal informal activities.

PRIVATE GOVERNANCE : social mores that determine acceptable market behaviour, professional standards and codes of conduct

Challenges	Achievements	Improvements
<ul style="list-style-type: none"> Weak technical and managerial capacity, poor coordination, and inadequate funding Limited human and financial resources and limited technological know-how to implement environmental management and resource-efficient and cleaner production initiatives Many Food and beverages manufacturing companies operate across the country as an informal businesses. 	<ul style="list-style-type: none"> Eco-labelling initiatives at the regional level: the African Eco-labelling Mechanisms and the ECO Mark Africa. Shift from the linear economy model to a green and circular economy model. National Platform on Partnering for Green Growth and Global Goals. Strong private sector industry associations. 	<ul style="list-style-type: none"> Green manufacturing guidelines accessible for different manufacturing sectors and companies. Industrialisation through SEZs and IPs. Accelerated local Environmental Management System certification. Investments in capacity-building courses and cleaner production guidelines



Crude Palm Oil (CPO) is the most exported product in the Food and Beverage sector in Kenya. A process-based LCA concluded that the CPO production has an impact on marine ecotoxicity mainly due to the emissions from insecticide application and land use from farming activities. However, the absorption of heavy metals from the soil by palm plants causes a reduction in human non-carcinogenic toxicity. Sustainable initiatives at a plant scale are desirable, including reducing water consumption, selecting environmentally preferable chemical inputs, and optimizing wastewater and waste treatment.

