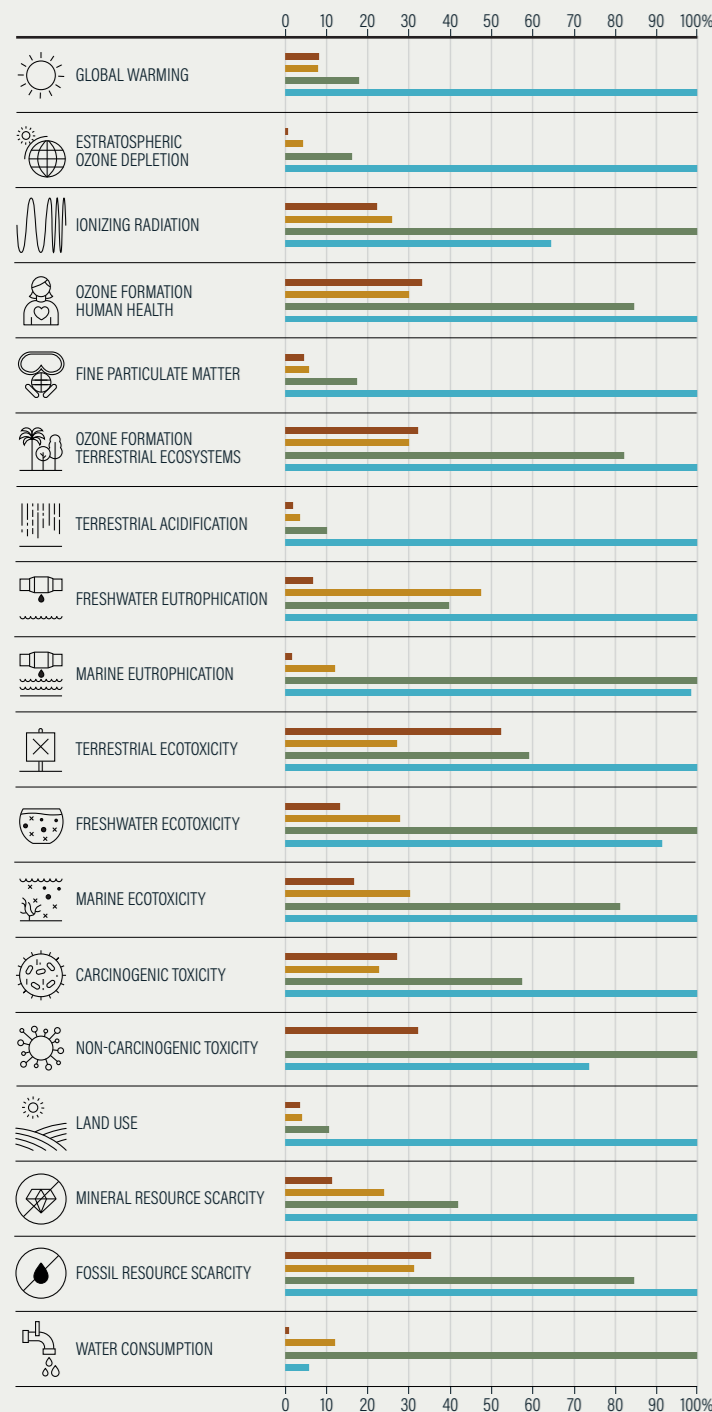


PLASTIC WASTE MANAGEMENT IS A GROWING CHALLENGE IN KENYA

- Plastic constitutes an estimated 10–12% of solid waste, amounting to 966,000 tonnes/year.
- Plastic beverage bottles accounted for the largest share (13.26%) of all items collected from beaches in 2019, followed by plastic bottle caps (10.5%). Other items collected in large shares included food wrappers, plastic lids and plastic takeaway containers, and plastic grocery bags.

– Plastic packaging is used at a rate of 259,252 tonnes/year, of which 71% is imported. The end-of-life scenario for plastic packaging waste leaves 15% landfilled, 18% recycled and 67% disposed in open dumps. As of 2018, only 27% of all plastic waste generated was collected, of which 19% was landfilled and 8% recycled. A small percentage (13.6%) of the plastic waste collected for recycling was exported.

IMPACTS PER LIFE CYCLE STAGE OF ALTERNATIVE BAG TYPES



WHAT DO LIFE-CYCLE AND TECHNO-ECONOMIC ANALYSES REVEAL?

A screening life-cycle assessment of various feedstocks was carried out for four product categories: (i) plastic grocery and other bags; (ii) takeaway/takeaway containers for food and beverages; (iii) plates, straws and cutlery; and (iv) bottles and sachets for water and other beverages. Results for grocery bags are illustrated in the figure beside. After further techno-economic analysis, a number of promising feedstock materials were identified (table below).

CATEGORY PROMISING ALTERNATIVE MATERIALS

TAKEAWAY CONTAINERS	PAPER
GROCERY BAGS	PAPER OR SISAL
PLATES	COCONUT HUSKS
STRAWS	WHEAT STEM
BOTTLES	GLASS OR ALUMINIUM
SACHETS	NO VIABLE OPTION AVAILABLE

Materials excluded were wood, wool, bamboo and stainless steel, for their poor overall environmental performance, and polylactic acid used for bioplastics, for the lack of appropriate composting facilities.

In Kenya, as in many developing countries, SUP products are often much cheaper than non-plastic alternatives. Additional regulatory and fiscal measures favouring plastic substitutes may be needed to bridge price gaps.

KEY

- PAPER BAG
- JUTE BAG
- COTTON BAG
- WOOL BAG

NOTE

In the impact assessment graphics, 100% represents the product with the largest environmental footprint for each impact indicator. The indicators of the alternative products are presented as fractions of that maximum for each impact category, i.e., the larger the bar, the greater the potential impact of each alternative compared with the option that has the greatest potential impact.

REGULATORY LANDSCAPE FOR SUPS

- Kenya introduced a ban on the importation, production and use of plastic bags used for commercial and household purposes through the publication of Gazette Notice 2356 in March 2017. Penalties stipulated for violations include fines amounting to \$40,000 and prison terms of up to four years for the importation, production and consumption of SUP bags.
- Kenya has also banned plastic bottles, straws and related products in all national parks, national reserves and conservation areas and any other designated wildlife areas.

Design challenges

- Consensus on the scope of legislation is lacking; specific clauses and provisions are needed that target plastics, not only broad provisions on solid waste management and marine pollution prevention and their effective enforcement.
- The scope of prohibited activity is often not clear within legislation, which carries the risks of legal challenge and uncertainty and lack of predictability.

– The scope of covered plastic items subject to the ban in wildlife parks, reserves and conservation areas is not clear, which could pose challenges for implementation and enforcement once the ban takes effect.

– A general prohibition on pollution of the marine environment (including dumping of plastic waste such as fishing gear) can be interpreted from provisions in Kenya’s maritime, wildlife and fisheries laws related to conservation, management, development and protection of marine, fisheries and wildlife resources within its maritime zone.

– Kenya is developing extended producer responsibility (EPR) regulations that aim to establish mandatory EPR schemes for various products including plastics.

Implementation challenges

- Capacity constraints are a major impediment to effective management of plastic waste pollution.
- Inadequate facilities for waste collection, transport and disposal and lack of awareness of good management practices such as segregation lead to inefficient collection and disposal, with open dump sites prevalent in most counties.
- Structured waste management services are lacking, particularly in slums and rural areas.
- Better coordination among state agencies as well as greater resources for monitoring and enforcement are needed so that

TRADE OPPORTUNITIES IN SUP SUBSTITUTES

– Kenya is a net exporter of several non-plastic feedstocks, such as jute, coconut husks, sisal, aluminium waste and scrap, cereal straw and husks, and vegetable plaiting materials. Top export markets include developing countries in Asia (China, India, the Republic of Korea, and Thailand) and in Africa (Burundi, Rwanda, the United Republic of Tanzania, Uganda and Zambia) as well as Saudi Arabia and Denmark (the latter for cereal husks and straws).

– Kenya is mostly a net exporter of several non-plastic end-use products, such as aluminium table and kitchen articles, and paper bags, baskets, and containers made of vegetable plaiting materials (see figure 3). Top export markets include East African countries, and Canada, Japan, the European Union, the United States and the United Kingdom.

– Kenya displays a revealed comparative advantage in exports of coconut husks, hemp and sisal among non-plastic feedstocks and in grocery bags made of paper and jute among non-plastic end-use products.

– Plastics and plastic scrap can enter Kenya mostly duty-free (the exception being 2% for polystyrene). Non-plastic feedstock alternatives face 10% import tariffs, on average. Plastic as well as non-plastic end-use products in general face a 25% duty (17.5% for paper straws and 12.5% for aluminium casks, cans and drums).

POLICY OPTIONS AND RECOMMENDATIONS

- Further strengthen data gathering and inventory development for life-cycle assessment.
- Address the relatively low prices for plastic feedstocks and end-use products compared with their non-plastic counterparts through suitable policies, regulations and incentives.
- Review MFN and non-MFN import duties for plastic and non-plastic feedstocks and end-use products to ensure that SUP substitutes are not at a competitive disadvantage.
- Encourage and support scale-up of manufacturing capacity for SUP substitutes, particularly those based on competitive agro-waste feedstocks available domestically such as wheat straw, as well as low-priced imports of raw material.
- Further expand take-back and reuse schemes established for materials such as glass and aluminium.
- Further strengthen the regulatory framework on SUPs to reflect global best practices.
- Further expand global market access for Kenya’s non-plastic feedstock and end-use product exports through multilateral, bilateral and regional initiatives to lower tariffs and non-tariff barriers.
- Provide technical and financial assistance to enable local producers and exporters of SUP substitute products to conform