



Substitutes for Single-Use Plastics in Sub-Saharan Africa and South Asia

Annexes



LIST OF ANNEXES

Annex 1: Energy profiles of the three study countries

Annex 2: Methodology: concepts, issues and challenges

Annex 3: Trade flow data

Annex 4: Most-favoured nation and preferential import duties for selected RTAs applied by Bangladesh, Kenya and Nigeria for plastic and non-plastic feedstock and end-use products

Annex 5: Conventions and regulations related to plastic pollution

Annex 6: Techno-economic feasibility of SUP substitute feedstock options

ANNEX I. Energy Profiles of the Three Study Countries

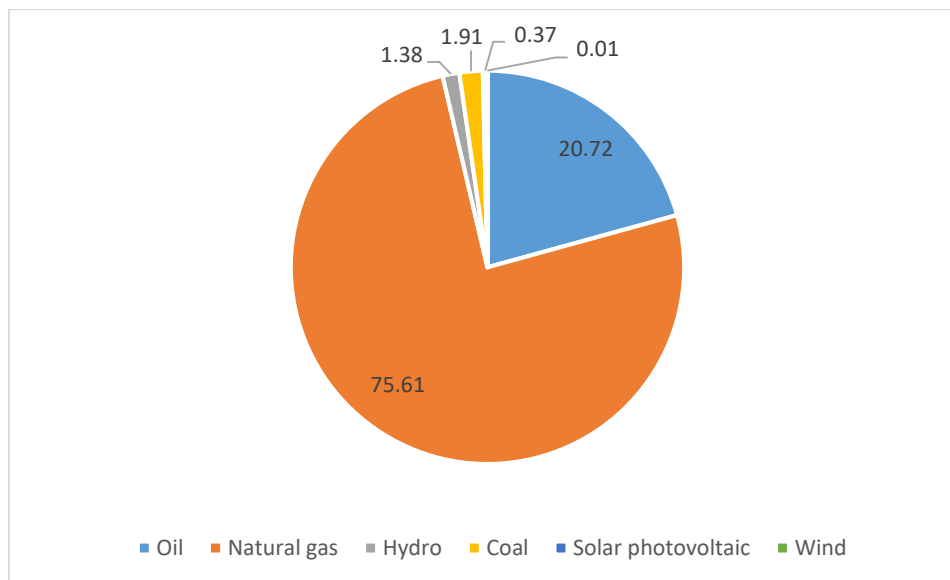
In order to conduct the sustainability assessment carried out in chapter IV, data on each countries' energy sector was compiled in the following sections. Product manufacturing processes for the products under study mostly require electricity provided by the respective national grid. Direct gas-to-electricity applications were found for only a few cases of energy-intensive industries, such as for the production of aluminium and glass.

A1.1. Bangladesh: Energy profile

According to data from the International Energy Agency (2021), Bangladesh produced a total of 78,612 GWh of electricity in 2018. Electricity supply was mostly generated by fossil fuels, with the majority coming from natural gas (75.6 per cent) and oil (20.7 per cent), as outlined in figure A.1.1. Renewable energy sources contributed less than 2 per cent. The CO₂ intensity of the energy mix (CO₂/TES, or total energy supply) was 2.0 tonnes CO₂/toe (tons of carbon dioxide per ton of oil equivalent).

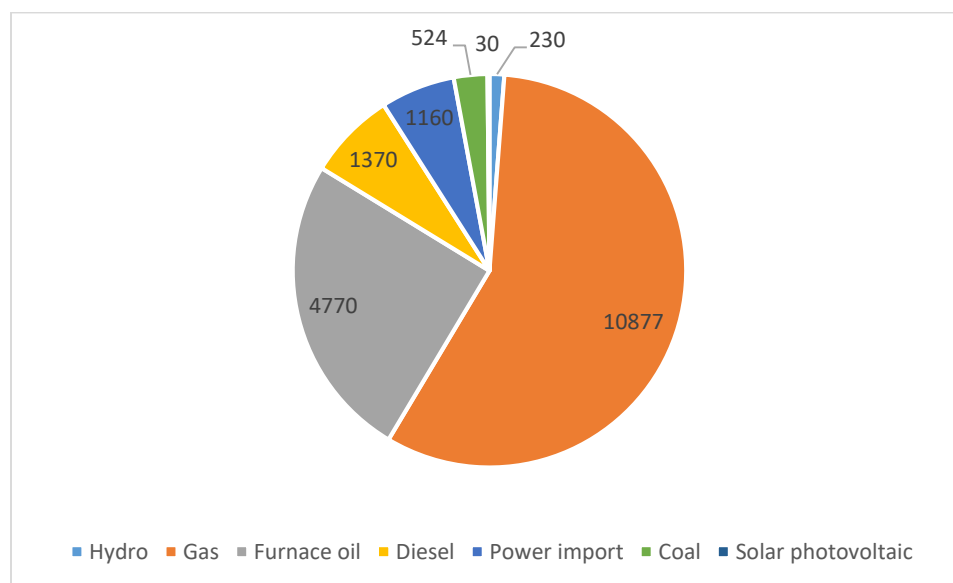
According to the Bangladesh Power Development Board (2019), Bangladesh had a total installed generation capacity of 18,961 MW as of October 2019. In total, 95 per cent of the Bangladeshi population has access to electricity.

Figure A1.1: Bangladesh: Electricity generation by source (Per cent)



Source: IEA (2021).

Figure A1.2: Bangladesh: Generation capacity (MW)



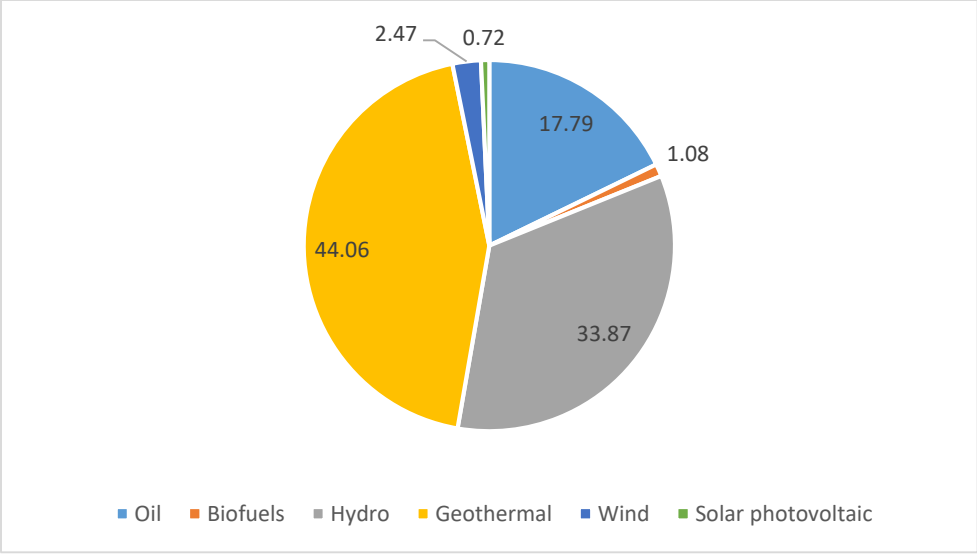
Source: Bangladesh Power Development Board (2019).

A1.2. Kenya: Energy profile

According to data from the International Energy Agency (2021), Kenya produced a total of 11,769 GWh of electricity in 2018. Electricity supply was mostly generated by renewable sources, with the majority coming from geothermal power (44 per cent) and hydroelectricity (33 per cent), as shown in figure A1.3. The CO₂ intensity of the energy mix was 0.6 tonnes CO₂/toe.

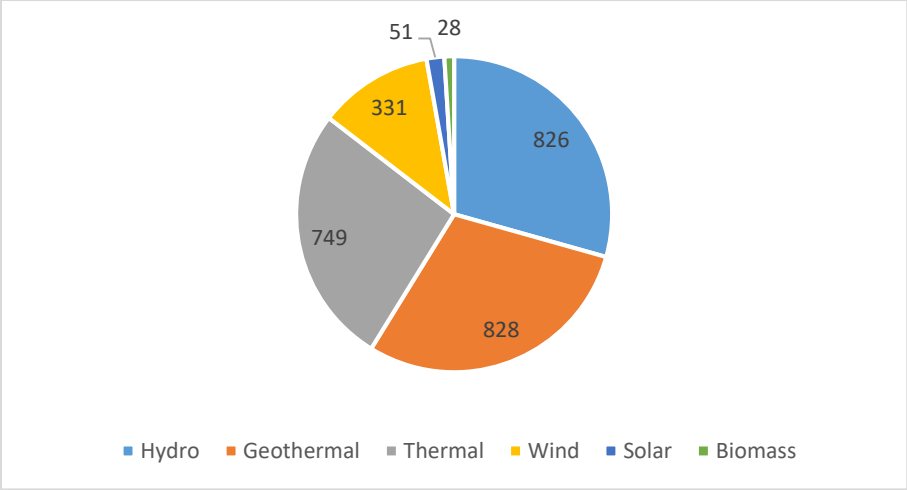
With a total installed generation capacity of 2,819 MW, Kenya has one of the most developed power sectors in sub-Saharan Africa. This is mainly a result of having opened its market to independent power producers in the mid-1990s. In total, 75 per cent of the Kenyan population has access to electricity, with 100 per cent of those in urban areas having access and 65.7% of those in rural areas (USAID, 2021a).

Figure A1.3: Kenya: Electricity generation by source (Per cent)



Source: IEA (2021).

Figure A1.4: Kenya: Generation capacity (MW)



Source: USAID (2021a).

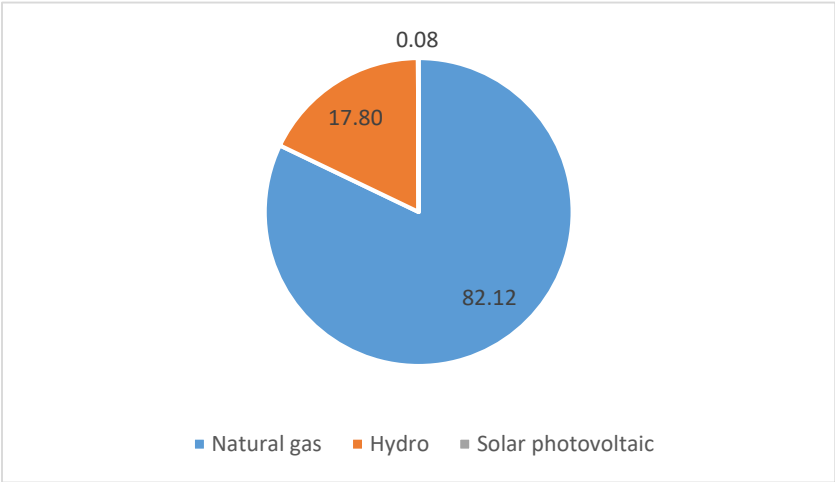
A1.3. Nigeria: Energy Profile

According to data from the International Energy Agency (2021), Nigeria produced a total of 36,277 GWh of electricity in 2018. Electricity supply was mostly generated with natural gas, which has a share of 82 per cent. The share of renewables is dominated by hydropower with 17.8 per cent; only 0.08 per cent is contributed by solar energy, as shown in figure A1.5. The CO₂ intensity of Nigeria’s energy mix was 0.7 tonnes CO₂/toe.

Nigeria’s total installed generation capacity is 16,384 MW. Although Nigeria is the largest economy in sub-Saharan Africa, its power sector is highly challenged and, according to USAID (2021b), on average is able to produce only an insufficient amount: 4,000 MW. In total, 60 per cent of the Nigerian population has

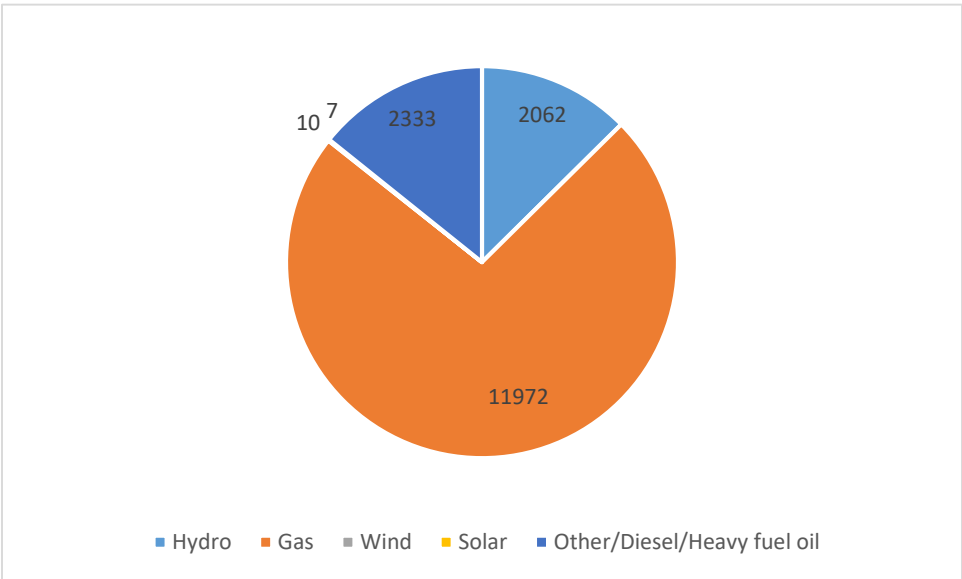
access to electricity, with 86 per cent of those in urban areas having access and 34 per cent of those in rural areas (USAID, 2021b).

Figure A1.5: Nigeria: Electricity generation by source (Per cent)



Source: IEA (2021).

Figure A1.6: Nigeria: Generation capacity (MW)



Source: USAID (2021b).

ANNEX II. Methodology: concepts, issues and challenges

This annex presents an overview of the methodology used for analysing trade flows and assessing revealed comparative advantage, including issues and challenges with regard to HS classification as well as the type of trade-flow analysis for selected plastic and non-plastic feedstock materials as well as end-use products.

Table A2.1 presents the scope of product coverage, geographical coverage and trade flow trends analysed in this chapter. Before presenting some of the main findings from the trade flow analysis, it is important to briefly discuss the methodological aspects involved. The export and import data at the four- and six-digit HS levels are from UN Comtrade, for countries in South Asia and sub-Saharan Africa for the years 2015 to 2019. The list of HS subheadings selected for the various product categories as well as the data on trade flow trends are presented in tables A3.1 to A3.5 in annex III. These tables can be accessed at the SMEP Trade and Pollution Dashboard under Reports at http://bit.ly/SMEP_UNCTAD. Selected data from these tables are illustrated in figures 6.1 to 6.5 in chapter 6. The definitions and concepts of key trade indicators measured in annex tables A3.2–5 are described here. Some issues related to HS classification are also discussed. The methodology is further explained in annex III.

Table A2.1. Overview of trade flow analysis of feedstocks and end-use products

Type of product	Geographical coverage	Trade flow trends analysed
A. Key trade trends and RCA scores of SMEP countries (annex table A3.2)		
Trade balance and five-year export growth rate: figures 6.1a, b, c and d; figures 6.2a, b and c		
I. FEEDSTOCKS - Plastics - Natural fibres - Agricultural by-products - Minerals	SMEP COUNTRIES South Asia - Bangladesh - Nepal - Pakistan	<ul style="list-style-type: none"> • Revealed comparative advantage • Average export growth, 2015–2019 (per cent) • Trade balance based on data for latest reporting year (annex table A3.2, thousands of dollars; figures 6.1a, b, c and d and figures 6.2a, b and c, millions of dollars)
II. END-USE PRODUCTS Plastics - Food containers, single-use accessories - Grocery bags, packaging - Liquid containers Non-plastics - Food containers, single-use accessories - Grocery bags, packaging - Liquid containers	Sub-Saharan Africa - Dem. Rep. of Congo - Ethiopia - Ghana - Kenya - Nigeria - Rwanda - Senegal - Uganda - United Rep. of Tanzania - Zambia	

B. Top five global and regional exporters and importers of plastic and non-plastic feedstocks and end-use products, based on data availability and latest reporting year (annex table A3.3)		
<p>I. FEEDSTOCKS</p> <ul style="list-style-type: none"> - Plastics - Natural fibres - Agriculture by-products - Minerals <p>II. END-USE PRODUCTS</p> <p>Plastics</p> <ul style="list-style-type: none"> - Food containers, single-use accessories - Grocery bags, packaging - Liquid containers <p>Non-plastics</p> <ul style="list-style-type: none"> - Food containers, single-use accessories - Grocery bags, packaging - Liquid containers 	<ul style="list-style-type: none"> - South Asia - Sub-Saharan Africa - World 	<ul style="list-style-type: none"> • Top five exporters and importers, South Asia, 2018 (thousands of dollars) • Top five exporters and importers, sub-Saharan Africa, 2019 (thousands of dollars) • Top five exporters and importers, world, 2019 (thousands of dollars) • Average export growth for listed countries, 2015–2019 (per cent)
C. Aggregate export and import values and growth rates for South Asia and Sub-Saharan Africa (annex table A3.4)		
<p>I. FEEDSTOCKS</p> <ul style="list-style-type: none"> - Plastics - Natural fibres - Agricultural by-products - Minerals <p>II. END-USE PRODUCTS</p> <p>Plastics</p> <ul style="list-style-type: none"> - Food containers, single-use accessories - Grocery bags, packaging - Liquid containers <p>Non-plastics</p> <ul style="list-style-type: none"> - Food containers, single-use accessories - Grocery bags, packaging - Liquid containers 	<ul style="list-style-type: none"> - Aggregated South Asia - Aggregated Sub-Saharan Africa 	<ul style="list-style-type: none"> • Export value, 2019 (thousands of dollars) • Average export growth rate, 2015–2019 (per cent) • Import value, 2019 (thousands of dollars) • Average import growth, 2015–2019 (per cent)

D. Key trade trends and RCA scores for Bangladesh, Kenya and Nigeria (annex table A3.5) Exports, imports and net exports: figures 6.3, 6.4 and 6.5		
Selected HS subheadings based on HS 2017 for plastic and non-plastic feedstocks and end-use products	- Bangladesh - Kenya - Nigeria	<ul style="list-style-type: none"> • Export value based on latest reporting year (annex table A3.5, thousands of dollars; figures 6.3, 6.4 and 6.5, millions of dollars) • Average export growth rate, 2015–2019 (per cent) • Import value (thousands of dollars) in annex table A3.5; figures 6.3, 6.4 and 6.5 (millions of dollars) • Average import growth, 2015–2019 (per cent) • Revealed comparative advantage • Top five export markets • Top five import sources

Note: Data are presented in figures 6.1 to 6.5 and in annex tables A3.2 to A3.5.

A2.1. HS classification issues

The list of HS codes presented in annex table A3.1 and accessible at http://bit.ly/SMEP_UNCTAD is based on the HS 2017 version, or equivalent subheadings from previous HS versions where applicable. It is often challenging to precisely match subheadings at the HS six-digit level (required for comparison of trade statistics at a global level) with specific products, particularly in the case of end-use products. For example, no distinct HS subheading exists for banana or areca leaves or for takeout or takeaway containers made from such leaves. For this reason, the closest subheading likely to match the feedstock or product in question has been used. Hence, for banana and areca leaves, the subheading HS 1410.90 (“Other vegetable materials of a kind used primarily for plaiting” – for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark) was considered the closest match and thus included for analysis. Similarly, for takeaway containers made from such leaves the subheading HS 4602.19 (“Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of Other vegetable materials”) was selected.

In some cases, there is a lack of clarity regarding which precise HS six-digit subheading could capture a product. For example, aluminium bottles could be classified under three HS subheadings:

- 7612.90: Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment; Other
- 7615.10: Table, kitchen or other household articles and parts thereof; pot scourers and scouring or polishing pads, gloves and the like; Of aluminium
- 71616.99: Other articles of aluminium

In this case, all three subheadings were selected. Invariably there is the risk in all of these cases of overestimation of trade flows for specific end-use items. The results of the trade flow analysis therefore should be interpreted with caution.

A2.2. Revealed comparative advantage

The concept of revealed comparative advantage (RCA) was popularized by Balassa (1965) as an index that reveals a country's competitiveness across sectors of an economy by using data on its actual export flows. It can be computed using the following formula:

$$RCA_k^i = \frac{\text{Share of product } k \text{ in country } i\text{'s exports}}{\text{Share of product } k \text{ in world exports}}$$

Or more specifically as:

$$RCA_k^i = \frac{X_{ik}/X_i}{X_{wk}/X_w}$$

where

X_{ik} is exports in product k by country I ,

X_i is total exports for country I ,

X_{wk} is world's exports in product k , and

X_w is world's total exports.

If $RCA_k^i > 1$, a country is said to have an RCA in the export of product k . Although this index can be used to predict a general trend in a country's export competitiveness, it should be noted that it does not consider application of national measures such as tariffs, export subsidies, import restrictions or other NTBs that may distort trade patterns. However, the RCA remains a tool widely used in trade analysis. To compute the RCA index, export data at the HS four-digit and six-digit levels were taken from UN Comtrade.

A2.3. Average export (import) growth

Average export (import) growth can be defined as the compound annual growth rate (CAGR) of exports (imports) over a specific period of time. For this analysis, we have computed CAGR over a five-year period (2015–2019) as follows:

$$CAGR = \left(\frac{V_{final}}{V_{initial}}\right)^{1/t} - 1$$

where

V_{final} is exports (imports) at the end of the period,

$V_{initial}$ is export (imports) at the beginning of the period, and

t is the length of the time period in years.

A2.4. Trade balance

Trade balance is the difference between a country's exports and imports quantified in the analysis in thousands of dollars. In addition, simple averages across product categories (listed in table A3.1 in annex III) and across regions (South Asia and sub-Saharan Africa) were computed for tables A3.2–5.

ANNEX III. Trade Flow Data

The list of HS codes and trade flow data analysed for SMEP countries in plastic and non-plastic feedstocks and end-use products appears in annex table A3.1. Tables A3.1–5 are available online and can be accessed at: http://bit.ly/SMEP_UNCTAD.

ANNEX IV. Most-favoured nation and preferential import duties for selected RTAs applied by Bangladesh, Kenya and Nigeria for plastic and non-plastic feedstocks and end-use products

Table A4.1: Bangladesh: Applied MFN and regional trade agreement duties on SUP and plastic substitute feedstocks

Feedstocks	HS code	HS subheading description	SAFTA duty rates
	A: Average of applied MFN duty rates (HS 2017)		
	B: Bound rates (HS 2007)		
Plastics			
Polyethylene	3901	Polymers of ethylene in primary form	3901.10 (HS 07)- Sensitive list
	A: 5.0%		3901-20 (HS 07)- Sensitive list
	B: Unbound		
Polypropylene	3902	Polymers of propylene or of other olefins, in primary forms	3902.10 (HS 07)- Sensitive list
	A: 5.0%		3902-20 (HS 12)- Sensitive list
	B: Unbound		
Polyethylene terephthalate (PET)	390761	Having a viscosity number of 78 ml/g or higher	3907.60 (HS 07)- Sensitive list
	A: 5.0%		
	B: Unbound (for 390760 HS 12 version)		
	390769	Other	3907.60 (HS 07)- Sensitive list
	A: 5.0%		
	B: Unbound (for 390760 HS 12 version)		
Polystyrene	3903	Polymers of styrene in primary form	3903.19 (HS 07)- Sensitive list
	A: 5.0%		
	B: Unbound		

Polyvinyl chloride (PVC)	3904 A: 5.0% B: Unbound	Polymers of vinyl chloride or of other halogenated olefins, in primary forms	3903.19 (HS 07)- Sensitive list
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Plastic waste and scrap	3915 A: 5.0% B: Unbound	Waste, pairings and scrap of plastic	3%
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Non-plastic Substitutes

Paper and cardboard [Natural fibres]	4811.90 A: 12.0% B: Unbound	Other paper, paperboard, cellulose wadding and webs of cellulose fibres	4811.90 (HS 07)- Sensitive list
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Jute [Natural fibres]	5303.10 A: 25.0% B: 50%	Jute and other textile bast fibres, raw or retted	5%
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Sisal [Natural fibres]	5607.21 A: 10.0% B: Unbound	Binder or baler twine; Of sisal	3%
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	5607.29 A: 10.0% B: Unbound	Other; Of sisal	3%
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Banana leaves [Agriculture by-product]	1401.90 A: 10.0% B: 200%	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark); Other	3%
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Cotton [Natural fibres]	5201.00 A: Duty-free B: 200%	Cotton; not carded or combed	Duty-free
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Hemp [Natural fibres]	5302.10 A: 25.0% B: 200%	True hemp, raw or retted	5%
Coconut Husks [Natural fibres]	5305.00 A: 5.0% B: Unbound	Coconut, abaca (Manila hemp or <i>Musa textilis Nee</i>), ramie and other vegetable textile fibres, not elsewhere specified or included, raw or processed but not spun; tow, noils and waste of these fibres (including yarn waste and garnetted stock)	3%
Areca leaf [Agriculture by-product]	1401.90 A: 10.0% B: 200%	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark); Other	3%
Wheat husks [Agriculture by-product]	1213.00 A: 5.0% B: 200%	Cereal straw and husks, unprepared, whether or not chopped, ground, pressed or in the form of pellets	Duty-free
Glass [Mineral product]	7001.00 A: 5.0% B: Unbound	Cullet and other waste and scrap of glass; glass in the mass	3%
Aluminium [Mineral product]	7601 A: 5.0% B: Unbound	Unwrought aluminium	Duty free except for 7601.10 – Unwrought non-alloyed aluminium at 3%
	7602 A: 5.0% B: Unbound	Aluminium waste and scrap	Duty-free

Sources: Bangladesh's revised schedule of import tariff under SAFTA (revised SRO published on 30 June 2020) and Bangladesh Revised Sensitive List (Phase II) for Non-LDCs. For the rest: Bangladesh Trade Portal.

https://www.bangladeshtradeportal.gov.bd/kcfinder/upload/files/Bangladesh%20Revised%20Sensitive%20List%20%28Phase-II%29%20for%20Non-LDCs_HS%202012.pdf; WTO Tariff Download Facility.

<http://tariffdata.wto.org/default.aspx> and World Customs Organization. HS Nomenclature 2017 edition. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/hs-nomenclature-2017-edition.aspx>.

Note: HS 2017 subheadings are changed to HS 2007 conversion equivalents for sensitive list products used by Bangladesh. Products in sensitive list are those applying to non-LDCs.

Table A4.2: Bangladesh: Applied MFN and regional trade agreement duties on SUP and plastic substitute products

Finished products [Category]	HS code	HS subheading	SAFTA duty rates ^a
	A: Average of Applied MFN Duty Rates (HS 2017) B: Bound rates (HS 2007)		
Plastic products			
Grocery and other bags [Grocery bags/packaging]	3923.21 A: 25% B: Unbound	Sacks and bags (including cones); Of polymers of ethylene	3923.21 (HS 07)- Sensitive list
Takeout/takeaway containers and plates for food [Food containers & single-use accessories]	3923.10 A: 25% B: Unbound	Boxes, cases, crates and similar articles; Of plastics	3923.10 (HS 07)- Sensitive list
	3924.10 A: 25% B: Unbound	Tableware and kitchenware; Of plastics	3924.10 (HS 07)- Sensitive list
Drinking straws [Food containers & single-use accessories]	3917.32 A: 13.3% B: Unbound	Tubes, pipes and hoses, and fittings therefor (for example, joints, elbows, flanges), of plastics; Other not reinforced or otherwise combined with other materials, without fittings	3917.32 (HS 07)- Sensitive list
Bottles (PET) [Liquid containers]	3923.30 A: 15% B: Unbound	Carboys, bottles, flasks and similar articles; Of plastics	3923.30 (HS 07)- Sensitive list

Non-plastic substitute products

Grocery and other bags (paper) [Grocery bags/packaging]	4819.30 A: 25% B: Unbound	Sacks and bags, having a base of a width of 40 cm or more; of paper, paperboard, cellulose wadding or webs of cellulose fibres	4819.30 (HS 07)- Sensitive list
	4819.40 A: 25% B: Unbound	Other sacks and bags, including cones; of paper, paperboard, cellulose wadding or webs of cellulose fibres	5%
Grocery and other bags (jute) [Grocery bags/packaging]	6305.10 A: 25% B: 50%	Sacks and bags, of a kind used for the packing of goods; Of jute or of other textile bast fibres of heading 5303	5%
Grocery and other bags (cotton) [Grocery bags/packaging]	6305.20 A: 25% B: Unbound	Sacks and bags, of a kind used for the packing of goods; Of cotton	6305.20 (HS 07)- Sensitive list
Grocery and other bags (hemp) [Grocery bags/packaging]	6305.90 A: 25% B: Unbound	Sacks and bags, of a kind used for the packing of goods; Of other textile materials	5%
Takeout/takeaway containers and plates for food (Of paper and paperboard)	4819.10 A: 25% B: Unbound	Cartons, boxes and cases, of corrugated paper or paperboard	4819.10 (HS 07)- Sensitive list
[Food containers & single-use accessories]	4819.20 A: 25% B: Unbound	Folding cartons, boxes and cases, of non-corrugated paper or paperboard	4819.20 (HS 07)- Sensitive list
	4823.69 A: 25% B: Unbound	Trays, dishes, plates, cups and the like, of paper or paperboard; Other	N.A.

Takeout/takeaway containers and plates for food (Of banana/plantain/areca leaves) [Food containers & single-use accessories]	4602.19 A: 10% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	3%
Takeout/takeaway containers and plates for food (Of coconut husks) [Food containers & single-use accessories]	4602.19 A: 10% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	3%
Paper straws [Food containers & single-use accessories]	4823.90 A: 20.7% B: Unbound	Other paper, paperboard, cellulose wadding and webs of cellulose fibres, cut to size or shape; other articles of paper pulp, paper, paperboard, cellulose wadding or webs of cellulose fibres; Other	4823.90 (HS 07)- Sensitive list
Wheat fibre straws [Food containers & single-use accessories]	4602.19 A: 10.0% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Other	3%
Glass bottles [Liquid containers]	7010.90 A: 25.0% B: Unbound	Carboys, bottles, flasks, jars, pots, phials, ampoules and other containers, of glass, of a kind used for the conveyance or packing of goods; preserving jars of glass; stoppers, lids and other closures, of glass; Other	7010.90 (HS 07)- Sensitive list
Aluminium bottles [Food containers & single-use accessories]	7612.90 A: 7.5% B: Unbound	Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment; Other	7612.90.90- for Aluminium casks, drums, etc., nes (excl. for gas), <300 l, Nes (3%)

7615.10 A: 20% B: Unbound (for 7615.19- HS 2007 version)	Table, kitchen or other household articles and parts thereof; pot scourers and scouring or polishing pads, gloves and the like; Of aluminium	7615.19 (HS 07)- Sensitive list
7616.99 A: 25% B: Unbound	Other articles of aluminium; Other	3%

Sources: Bangladesh’s revised schedule of import tariff under SAFTA (revised SRO published on 30 June 2020) and Bangladesh Revised Sensitive List (Phase II) for Non-LDCs. For the rest: Bangladesh Trade Portal.

https://www.bangladeshtradeportal.gov.bd/kcfinder/upload/files/Bangladesh%20Revised%20Sensitive%20List%20%28Phase-II%29%20for%20Non-LDCs_HS%202012.pdf; WTO Tariff Download Facility. <http://tariffdata.wto.org/default.aspx> and World Customs Organization. HS Nomenclature 2017 edition. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/hs-nomenclature-2017-edition.aspx>.

Note: HS 2017 subheadings are changed to HS 2007 conversion equivalents for sensitive list products used by Bangladesh. Products in sensitive list are those applying to non-LDCs.

^a HS 2017 subheadings are changed to HS 2007 conversion equivalents for sensitive list products used by Bangladesh. Products in sensitive list are those applying to non-LDCs.

Table A4.3: Kenya: Applied MFN and regional trade agreement duties on SUP and plastic substitute feedstocks

Feedstocks	HS code A: Average of applied MFN duty rates (HS 2017) B: Bound rates (HS 2012)	HS subheading description	Kenya–UK EPA duty rates, beginning and end of phase-down period (where applicable) T0: Year of entry into force +: Number of years after entry into force
Plastics			
Polyethylene	3901 A: Duty free B: 31%	Polymers of ethylene in primary form	Duty-free (T0) 390140 not included

Polypropylene	3902	Polymers of propylene or of other olefins, in primary forms	Duty-free (T0)
	A: Duty free		
	B: Unbound		

Polyethylene terephthalate (PET)	390761	Having a viscosity number of 78 ml/g or higher	Duty-free (T0)
	A: Duty free		
	B: Unbound for 390760 HS 12 version)		

	390769	Other	Duty-free (T0)
	A: Duty free		
	B: Unbound (for 390760 HS 12 version)		

Polystyrene	3903	Polymers of styrene in primary form	Duty-free (T0)
	A: 2.0%		
	B: Unbound (for 390760 HS 12 version)		

Polyvinyl chloride (PVC)	3904	Polymers of vinyl chloride or of other halogenated olefins, in primary forms	Duty-free (T0)
	A: Duty free		
	B: Unbound		

Plastic waste and scrap	3915	Waste, pairings and scrap of plastic	Duty-free (T0)
	A: Duty free		
	B: Unbound		

Non-plastic substitutes

Paper and cardboard	4811.90	Other paper, paperboard, cellulose wadding and webs of cellulose fibres	25% Excluded from tariff phase-down regime
[Natural fibres]	A: 10.0%		
	B: Unbound		

Jute	5303.10	Jute and other textile bast fibres, raw or retted	Duty-free (T0)
[Natural fibres]	A: Duty free		
	B: Unbound		

Sisal	5607.21	Binder or baler twine; Of sisal	25%
[Natural fibres]	A: 25.0% B: Unbound		Excluded from tariff phase-down regime
	5607.29	Other; Of sisal	25%
	A: 25.0% B: Unbound		Excluded from tariff phase-down regime
Banana leaves	1401.90	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark); Other	10% (T0)
[Agriculture by-product]	A: 10.0% B: 100.0%		Duty-free (T0+15)
Cotton	5201.00	Cotton; not carded or combed	Duty-free (T0)
[Natural fibres]	A: Duty free B: 100.0%		
Hemp	5302.10	True hemp, raw or retted	Duty-free (T0)
[Natural fibres]	A: Duty free B: 100.0%		
Coconut Husks	5305.00	Coconut, abaca (Manila hemp or <i>Musa textilis</i> <i>Nee</i>), ramie and other vegetable textile fibres, not elsewhere specified or included, raw or processed but not spun; tow, noils and waste of these fibres (including yarn waste and garnetted stock)	Duty-free (T0)
[Natural fibre]	A: Duty free B: Unbound		

Areca leaf [Agriculture by-product]	1401.90 A: 10.0% B: 100.0%	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark); Other	10% (T0) Duty-free (T0+15)
Wheat husks [Agriculture by-product]	1213.00 A: 10.0% B: 100.0%	Cereal straw and husks, unprepared, whether or not chopped, ground, pressed or in the form of pellets	10% (T0) Duty-free (T0+15)
Glass [Mineral product]	7001.00 A: Duty free B: Unbound	Cullet and other waste and scrap of glass; glass in the mass	Duty-free (T0)
Aluminium [Mineral product]	7601 A: Duty free B: Unbound	Unwrought aluminium	Duty-free (T0)
	7602 A: Duty free B: Unbound	Aluminium waste and scrap	Duty-free (T0)

Sources: WTO Tariff Download facility (2021). <http://tariffdata.wto.org/default.aspx>; World Customs Organization. HS Nomenclature 2017 edition. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/hs-nomenclature-2017-edition.aspx>; United Kingdom Parliament (2021).

Table A4.4: Kenya: Applied MFN and regional trade agreement duties on SUP and plastic substitute products

Finished products [Category]	HS code A: Average of Applied MFN Duty Rates (HS 2017) B: Bound rates (HS 2012)	HS subheading	Kenya–United Kingdom EPA duty rates at beginning and end of phase-down period (where applicable)
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Single-use plastic products

Grocery and other bags [Grocery bags/packaging]	3923.21 A: 25% B: Unbound	Sacks and bags (including cones); Of polymers of ethylene	25% Excluded from tariff phase-down regime
Takeout/takeaway containers and plates for food [Food containers & single-use accessories]	3923.10 A: 25% B: Unbound	Boxes, cases, crates and similar articles; Of plastics	25% Excluded from tariff phase-down regime
	3924.10 A: 25% B: Unbound	Tableware and kitchenware; Of plastics	25% Excluded from tariff phase-down regime
Drinking straws [Food containers & single-use accessories]	3917.32 A: 25% B: Unbound	Tubes, pipes and hoses, and fittings therefor (for example, joints, elbows, flanges), of plastics; Other – not reinforced or otherwise combined with other materials, without fittings	25% Excluded from tariff phase-down regime
Bottles (PET) [Liquid containers]	3923.30 A: 25% B: Unbound	Carboys, bottles, flasks and similar articles; Of plastics	-5% Excluded from tariff phase-down regime

Non-plastic substitute products

Grocery and other bags (paper) [Grocery bags/packaging]	4819.30 A: 25% B: Unbound	Sacks and bags, having a base of a width of 40 cm or more; of paper, paperboard, cellulose wadding or webs of cellulose fibres	25% Excluded from tariff phase-down regime
	4819.40 A: 25% B: Unbound	Other sacks and bags, including cones; of paper, paperboard, cellulose wadding or webs of cellulose fibres	25% Excluded from tariff phase-down regime
Grocery and other bags (jute) [Grocery bags/packaging]	6305.10 A: 25% B: Unbound	Sacks and bags, of a kind used for the packing of goods; Of jute or of other textile bast fibres of heading 5303	25% Excluded from tariff phase-down regime

Grocery and other bags (cotton) [Grocery bags/packaging]	6305.20 A: 25% B: Unbound	Sacks and bags, of a kind used for the packing of goods; Of cotton	25% Excluded from tariff phase-down regime
Grocery and other bags (hemp) [Grocery bags/packaging]	6305.90 A: 25% B: Unbound	Sacks and bags, of a kind used for the packing of goods; Of other textile materials	25% Excluded from tariff phase-down regime
Takeout/takeaway containers and plates for food (Of paper and paperboard) [Food containers & single-use accessories]	4819.10 A: 25% B: Unbound	Cartons, boxes and cases, of corrugated paper or paperboard	25% Excluded from tariff phase-down regime
	4819.20 A: 25% B: Unbound	Folding cartons, boxes and cases, of non-corrugated paper or paperboard	10% (T0) Duty-free (T0+15)
	4823.69 A: 25% B: Unbound	Trays, dishes, plates, cups and the like, of paper or paperboard; other	25% Excluded from tariff phase-down regime
Takeout/takeaway containers and plates for food (Of banana/plantain/areca leaves) [Food containers & single-use accessories]	4602.19 A: 25% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	25% (T0) Duty-free (T0+25)
Takeout/takeaway containers and plates for food (Of coconut husks) [Food containers & single-use accessories]	4602.19 A: 25% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	25% (T0) Duty-free (T0+25)

Paper straws [Food containers & single-use accessories]	4823.90 A: 17.5% B: Unbound	Other paper, paperboard, cellulose wadding and webs of cellulose fibres, cut to size or shape; other articles of paper pulp, paper, paperboard, cellulose wadding or webs of cellulose fibres; Other	25% Excluded from tariff phase-down regime
Wheat fibre straws [Food containers & single-use accessories]	4602.19 A: 25% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Other	-25% (T0) Duty-free (T0+25)
Glass bottles [Liquid containers]	7010.90 A: 25% B: Unbound	Carboys, bottles, flasks, jars, pots, phials, ampoules and other containers, of glass, of a kind used for the conveyance or packing of goods; preserving jars of glass; stoppers, lids and other closures, of glass; Other	25% Excluded from tariff phase-down regime
Aluminium bottles [Food containers & single-use accessories]	7612.90 A: 12.5% B: Unbound	Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment; Other	Duty-free (T0)
	7615.10 A: 25% B: Unbound	Table, kitchen or other household articles and parts thereof; pot scourers and scouring or polishing pads, gloves and the like; Of aluminium	25% Excluded from tariff phase-down regime
	7616.99 A: 25% B: Unbound	Other articles of aluminium; Other	25% Excluded from tariff phase-down regime

Sources: WTO Tariff Download facility (2021). <http://tariffdata.wto.org/default.aspx>; World Customs Organization. HS Nomenclature 2017 edition. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/hs-nomenclature-2017-edition.aspx>; and United Kingdom Parliament (2021).

Table A4.5: Nigeria: Applied MFN and regional trade agreement duties on SUP and plastic substitute feedstocks

Feedstocks	HS code A: Average of applied MFN duty rates (HS 2017) B: Bound rates (HS 2012)	HS subheading description	ECOWAS-AfCFTA duty rates^a
Plastics			
Polyethylene	3901 A: 5.0% B: Unbound	Polymers of ethylene in primary form	Duty-free
Polypropylene	3902 A: 5.0% B: Unbound	Polymers of propylene or of other olefins, in primary forms	Duty-free
Polyethylene terephthalate (PET)	390761 A: 5.0% B: Unbound (for 390760 HS 12 version)	Having a viscosity number of 78 ml/g or higher	Duty-free
	390769 A: 5.0% B: Unbound (for 390760 HS 12 version)	Other	Duty-free
Polystyrene	3903 A: 5.0% B: Unbound	Polymers of styrene in primary form	Duty-free
Polyvinyl chloride (PVC)	3904 A: 6.1% B: Unbound	Polymers of vinyl chloride or of other halogenated olefins, in primary forms	Duty-free except for 3904.21 and 3904.22 at 5%
Plastic waste and scrap	3915 A: 5.0% B: Unbound	Waste, pairings and scrap of plastic	Duty-free
Non-plastic substitutes			
Paper and cardboard [Natural fibres]	4811.90 A: 13.3% B: Unbound	Other paper, paperboard, cellulose wadding and webs of cellulose fibres	5%
Jute [Natural fibres]	5303.10 A: 5.0% B: Unbound	Jute and other textile bast fibres, raw or retted	Duty-free

Sisal [Natural fibres]	5607.21 A: 10.0% B: Unbound	Binder or baler twine; Of sisal	Duty-free
	5607.29 A: 10.0% B: Unbound	Other; Of sisal	Duty-free
Banana leaves [Agriculture by-product]	1401.90 A: 5.0% B: 150.0%	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark); Other	Duty-free
Cotton [Natural fibres]	5201.00 A: 5.0% B: 150.0%	Cotton; not carded or combed	Duty-free
Hemp [Natural fibres]	5302.10 A: 5.0% B: 150.0%	True hemp, raw or retted	Duty-free
Coconut Husks [Natural fibres]	5305.00 A: 5.0% B: Unbound	Coconut, abaca (Manila hemp or <i>Musa textilis</i> Nee), ramie and other vegetable textile fibres, not elsewhere specified or included, raw or processed but not spun; tow, noils and waste of these fibres (including yarn waste and garnetted stock)	Duty-free
Areca leaf [Agriculture by-product]	1401.90 A: 5.0% B: 150.0%	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia, cleaned, bleached or dyed cereal straw, and lime bark); Other	Duty-free
Wheat husks [Agriculture by-product]	1213.00 A: 5.0% B: 150.0%	Cereal straw and husks, unprepared, whether or not chopped, ground, pressed or in the form of pellets	Duty-free
Glass [Mineral product]	7001.00 A: 10.0% B: Unbound	Cullet and other waste and scrap of glass; glass in the mass	5%
Aluminium [Mineral product]	7601 A: 5.0% B: 40.0%	Unwrought aluminium	Duty-free
	7602 A: 5.0% B: Unbound	Aluminium waste and scrap	Duty-free

Sources: American Chamber of Commerce-Ghana. ECOWAS AfCFTA Tariff Concession Schedule. See <https://www.amchamghana.org/download/ecowas-afcfta-tariff-concession-schedule/>; WTO Tariff

Download Facility. <http://tariffdata.wto.org/default.aspx>; and World Customs Organization. HS Nomenclature 2017 edition. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/hs-nomenclature-2017-edition.aspx>.

Note: ECOWAS-AfCFTA rates are those that come into effect at the end of the 10-year phase-in period.

Table A4.6: Nigeria: Applied MFN and regional trade agreement duties on SUP and plastic substitute products

Finished products [Category]	HS code A: Average of applied MFN duty rates (HS 2017) B: Bound rates (HS 2012)	HS subheading description	ECOWAS- AfCFTA duty rates
Plastic products			
Grocery and other bags [Grocery bags/packaging]	3923.21 A: 20% B: Unbound	Sacks and bags (including cones); Of polymers of ethylene	Excluded from tariff concession schedule
Takeout/takeaway containers and plates for food [Food containers & single-use accessories]	3923.10 A: 20% B: Unbound	Boxes, cases, crates and similar articles; Of plastics	Excluded from tariff concession schedule
	3924.10 A: 20% B: Unbound	Tableware and kitchenware; Of plastics	Excluded from tariff concession schedule
Drinking straws [Food containers & single-use accessories]	3917.32 A: 20% B: Unbound	Tubes, pipes and hoses, and fittings therefor (for example, joints, elbows, flanges), of plastics; Other – not reinforced or otherwise combined with other materials, without fittings	Excluded from tariff concession schedule
Bottles (PET) [Liquid containers]	3923.30 A: 20% B: Unbound	Carboys, bottles, flasks and similar articles; Of plastics	Excluded from tariff concession schedule

Non-plastic substitute products

Grocery and other bags (paper)	4819.30	Sacks and bags, having a base of a width of 40 cm or more; Of paper, paperboard, cellulose wadding or webs of cellulose fibres	Excluded from tariff concession schedule
[Grocery bags/packaging]	A: 20.0% B: Unbound		
	4819.40	Other sacks and bags, including cones; Of paper, paperboard, cellulose wadding or webs of cellulose fibres	Excluded from tariff concession schedule
	A: 20% B: Unbound		
Grocery and other bags (jute)	6305.10	Sacks and bags, of a kind used for the packing of goods; Of jute or of other textile bast fibres of heading 5303	5%
[Grocery bags/packaging]	A: 20% B: Unbound		
Grocery and other bags (cotton)	6305.20	Sacks and bags, of a kind used for the packing of goods; Of cotton	5%
[Grocery bags/packaging]	A: 20% B: Unbound		
Grocery and other bags (hemp)	6305.90	Sacks and bags, of a kind used for the packing of goods; Of other textile materials	5%
[Grocery bags/packaging]	A: 20% B: Unbound		
Takeout/takeaway containers and plates for food (Of paper and paperboard)	4819.10	Cartons, boxes and cases, of corrugated paper or paperboard	Excluded from tariff concession schedule
[Food containers and single-use accessories]	A: 20% B: Unbound		
	4819.20	Folding cartons, boxes and cases, of non-corrugated paper or paperboard	5% (for 8-digit NTL 4819.20.10, Specific boxes lined with polypropylene)
	A: 15% B: Unbound		
	4823.69	Trays, dishes, plates, cups and the like, of paper or paperboard; Other	Excluded from tariff concession schedule
	A: 20% B: Unbound		

Takeout/takeaway containers and plates for food (Of banana/plantain/areca leaves) [Food containers and single-use accessories]	4602.19 A: 20% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	5%
Takeout/takeaway containers and plates for food (Of coconut husks) [Food containers and single-use accessories]	4602.19 A: 20% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	5%
Paper straws [Food containers and single-use accessories]	4823.90 A: 20% B: Unbound	Other paper, paperboard, cellulose wadding and webs of cellulose fibres, cut to size or shape; other articles of paper pulp, paper, paperboard, cellulose wadding or webs of cellulose fibres; Other	5%
Wheat fibre straws [Food containers and single-use accessories]	4602.19 A: 20% B: Unbound	Basketwork, wickerwork and other articles, made directly to shape from plaiting materials or made up from goods of heading 4601; articles of loofah; Of other vegetable materials	5%
Glass bottles [Liquid containers]	7010.90 A: 10% B: 70%	Carboys, bottles, flasks, jars, pots, phials, ampoules and other containers, of glass, of a kind used for the conveyance or packing of goods; preserving jars of glass; stoppers, lids and other closures, of glass; Other	5%
Aluminium bottles [Food containers and single-use accessories]	7612.90 A: 15% B: Unbound	Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment; Other	5%

7615.10	Table, kitchen or other household articles and parts thereof; pot scourers and scouring or polishing pads, gloves and the like; Of aluminium	5%
A: 20%		
B: Unbound		
7616.99	Other articles of aluminium; Other	5%
A: 20%		
B: Unbound		

Sources: American Chamber of Commerce-Ghana. ECOWAS AfCFTA Tariff Concession Schedule. See <https://www.amchamghana.org/download/ecowas-afcfta-tariff-concession-schedule/>; WTO Tariff Download Facility. <http://tariffdata.wto.org/default.aspx> and World Customs Organization. HS Nomenclature 2017 edition. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs-nomenclature-2017-edition/hs-nomenclature-2017-edition.aspx>.

Note: ECOWAS-AfCFTA rates are those that come into effect at the end of the 10-year phase-in period.

ANNEX V. Conventions and Regulations Related to Plastic Pollution

Table A5.1: Bangladesh: Conventions and regulations related to plastic pollution

Agreement	Ratified	About	Implementing legislation
International			
Stockholm Convention on Persistent Organic Pollutants	March 2007		
Basel Convention	June 1993		
Ratification to the Basel Amendments (2019)	Not ratified		
MARPOL	December 2002		Annex V – Regulations for the Prevention of Pollution by Garbage from Ships
London Convention 1972	Not ratified		
London Convention Protocol 1996	Not ratified		
UNCLOS	July 2001		
Regional			
Water Pollution Control Ordinance, 1970	1970	Formulate policies for the control, prevention and abatement of pollution of waters ... and suggest measures for the implementation of these policies	
Environmental Pollution Control Ordinance	1997	Expanded the definition of “pollution” from that specifically relating to waters to “air, water or soil”.	
National Environmental Policy (NEP)	1992	Protection and sustainable management of the environment	
Environmental Court Act	2000	Providing for the establishment of environmental courts for the trial of offences relating to environmental pollution.	

Ban on plastic bags	2002		
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TABLE A5.2: Kenya: Conventions and regulations related to plastic pollution

Agreement	Ratified	About	Implementing legislation
International			
UNCLOS	March 1989		
MARPOL	March 1994		Annex V. Regulations for the prevention of pollution by garbage from ships
London Convention for the Prevention of Marine Pollution from the Dumping of Waste (1972)	January 1976		
London Protocol of 1996	January 2008		
Stockholm Convention on Persistent Organic Pollutants	September 2004	To take measures to eliminate or reduce the release of POPs into the environment	
Basel Convention	August 2000		
Ratification to the Basel Amendments (2019)	December 2019		
African Ministerial Conference on the Environment (AMCEN), The Durban Declaration ^a	November 2019	To commit to supporting global action to address plastic pollution	(Kenya is a member of AMCEN)
Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa	December 2003 (signatory but not ratified)	To strictly regulate the transboundary movement of hazardous wastes to and within Africa	

Regional

Africa's Integrated Maritime Strategy (2050 AIM Strategy)	January 2014	Establishes mechanisms for protection of the marine environment and for prevention of dumping of toxic waste in Africa's maritime domain	
East African Community Polythene Materials Control Bill	2018	Seeks to regulate the manufacture, sale, importation and use of polythene materials within the EAC	(Not yet a law)
Environmental Management and Coordination Act, 1999	1999	Provides for the management of various segments of the environment and natural resources. Framework law makes no express reference to marine plastics or plastics in general, but has general provisions for measures to control and prevent pollution of the marine environment, as well as measures for sound management of waste	Environmental Management and Coordination (Waste Management) Regulations, 2006 (Legal Notice No. 121/2006)
Environmental Management and Coordination (Plastics Bags Control and Management) Regulations, 2018 ^b	2018	To ensure a clean and healthy environment through prevention of pollution caused by plastic bags and promotion of alternative biodegradable packaging materials	

Nairobi City County Solid Waste Management Act, 2015 ^c	2015	Prohibition against manufacture of certain plastics (less than 30 microns and of a size not less than 8" x 12" and of a colour other than the specified colour of the Kenyan Standard
National Climate Change Action Plan 2018–2022 (NCCAP)	2018	Under Priority No. 5: Health, Sanitation and Human Settlement, the plan calls for circular waste management “to substantially reduce waste generation through prevention, reduction, recycling and reuse”
Blue Economy Strategy (2017)		Maritime and coastal protection, including addressing waste disposal
The Sustainable Waste Bill, 2019 ^d		More sustainable, circular economy in which waste is recognized as a secondary resource
Ban on manufacture, use and sale of plastic carrier bags and flat bags for domestic and commercial packaging	February 2017	
Kenya Environmental Sanitation and Hygiene Policy 2016–2030 (KESHP) ^e		Strategy 2 deals with pollution and solid waste management Policy Strategy 2: Assuring clean and healthy environment free from public nuisances

Draft Extended Producer Responsibility Regulations^f Draft, 2020

Regulations place an obligation on individual producers to establish take-back schemes for their post-consumer and end-of-life products, and to invest in waste collection systems, treatment, recycling and final disposal either directly or through contracted third parties

^a UNEP (2019b). https://wedocs.unep.org/bitstream/handle/20.500.11822/30786/AMCEN_17L1.pdf?sequence=1&isAllowed=y.

^b National Environment Management Authority, Government of Kenya (2018). https://www.nema.go.ke/images/featured/Draft_Plastic_Management_Regulations-_05.11_2018.pdf

^c Kenya Law (2015). http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/NairobiCityCountySolidWasteManagementAct_2015.pdf.

^d Ministry of Environment & Forestry, Government of Kenya (2019). <http://www.environment.go.ke/wp-content/uploads/2019/05/04-05-2019-NATIONAL-WASTE-MANAGEMENT-BILL-2019.pdf>.

^e Ministry of Health, Republic of Kenya (2016). <http://extwprlegs1.fao.org/docs/pdf/ken179039.pdf>.

^f Ministry of Environment & Forestry, Government of Kenya (2020). <http://www.environment.go.ke/wp-content/uploads/2020/05/4th-May-EXTENDED-PRODUCER-RESPONSIBILITY-REGULATIONS-2020-1.pdf>.

Table A5.3: Nigeria: Conventions and regulations related to plastic pollution

Agreement	Ratified	About	Implementing Legislation
International			
Stockholm Convention on Persistent Organic Pollutants	May 2004	Taking measures to eliminate or reduce the release of POPs into the environment	
Basel Convention	May 1992		
Ratification to the Basel Amendments (2019)	December 2019		
London Convention for the Prevention of Marine Pollution from the Dumping of Waste (1972)	March 1976		
London Convention Protocol 1996	October 2010		
MARPOL	February 2001		Annex V – Regulations for the Prevention of Pollution by Garbage from Ships
UNCLOS	August 1986		
Global Plastic Action Partnership (GPAP)	January 2021		
Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa	December 2008 (signatory but not ratified)	Strictly regulating the transboundary movement of hazardous wastes to and within Africa	
Regional			
Harmful Waste Decree No. 42 of 1988			
African Circular Economy Alliance	2017	Nigeria was a founding member. Set up to spur Africa’s transition to a circular economy	

Federal Environmental 1988
Protection Agency Act of 1988

Overall protection of the
environment

ANNEX VI. Techno-economic Feasibility of SUP Substitute Feedstock Options

TABLE A6.1: Comparison of techno-economically feasible SUP substitute feedstock options from LCI, trade performance and RCA perspectives

This table is available online and can be accessed at http://bit.ly/SMEP_UNCTAD

