



Ethiopia

Packaging sector overview

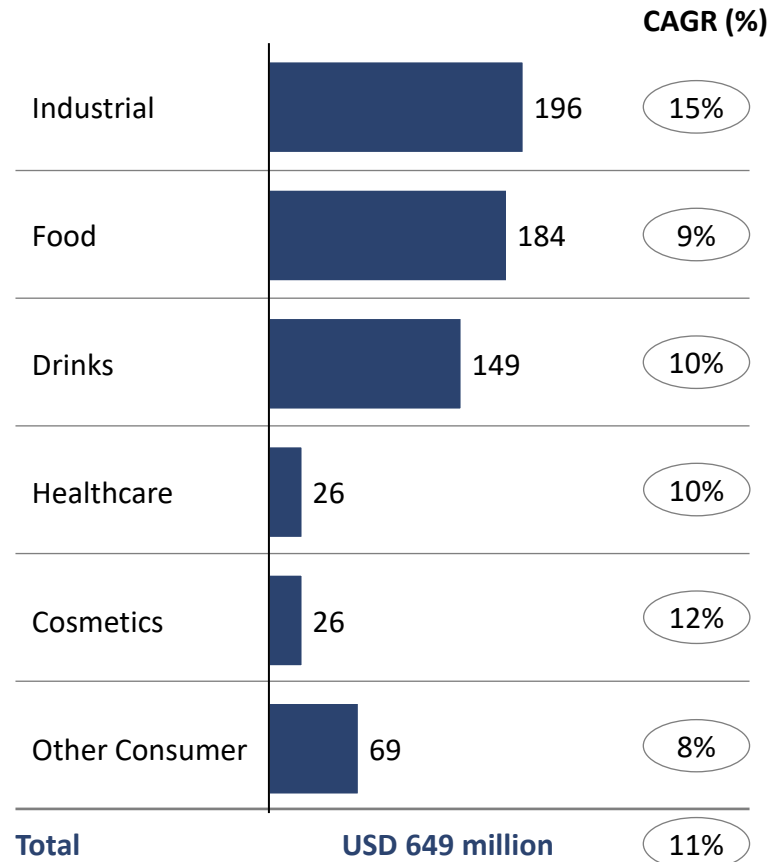
December, 2020



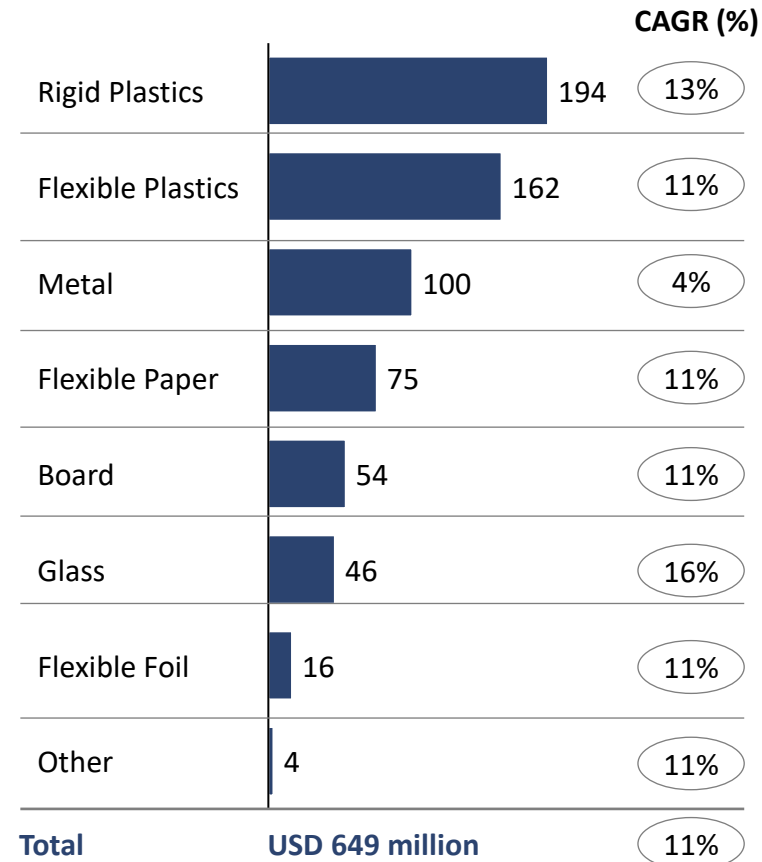
Ethiopia's main demand for packaging comes from food and drinks, with plastics as the main substrate

xx CAGR 2015-19 (%)

Ethiopia packaging consumption by end-use
2019. USD million



Ethiopia packaging consumption by substrate
2019. USD billion1

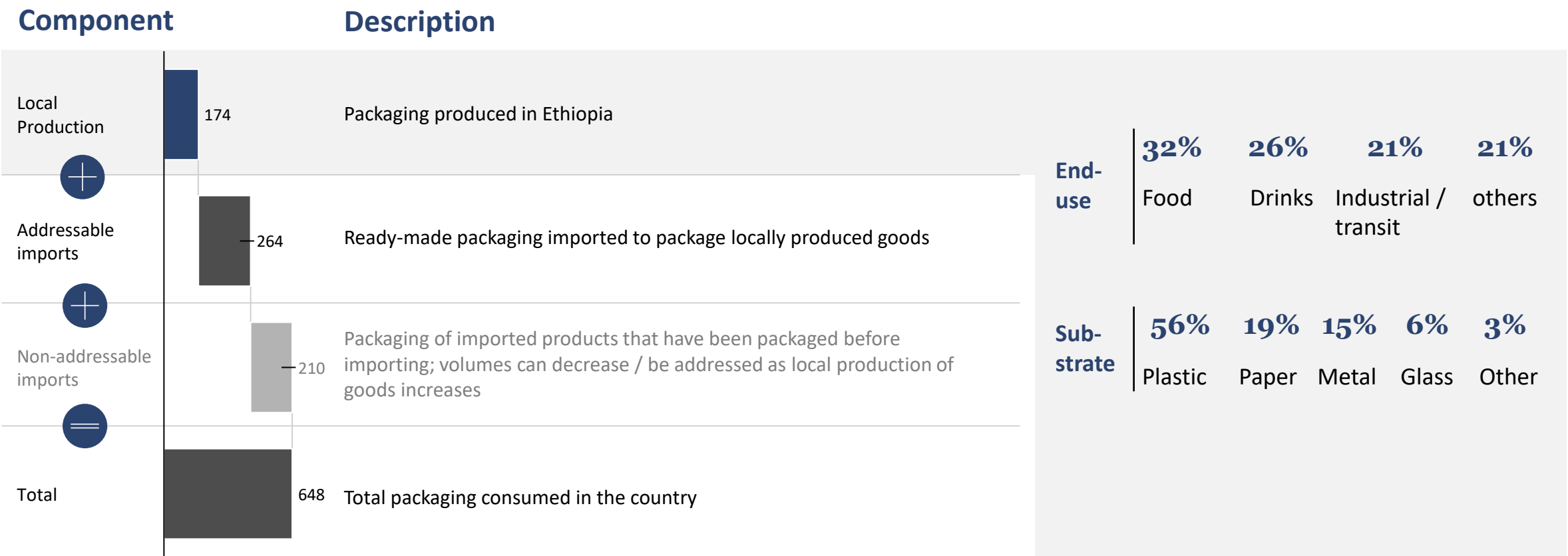


The **food and drinks sector** collectively represent **about half of total demand** for packaging (~\$333m of \$649m)

Plastics make up over half of packaging demand (~\$356m of \$649m)

Local production meets only ~25-30% of the country’s demand and is focused mainly on the food/drinks sector (58% of total) and on plastics (56% of total)

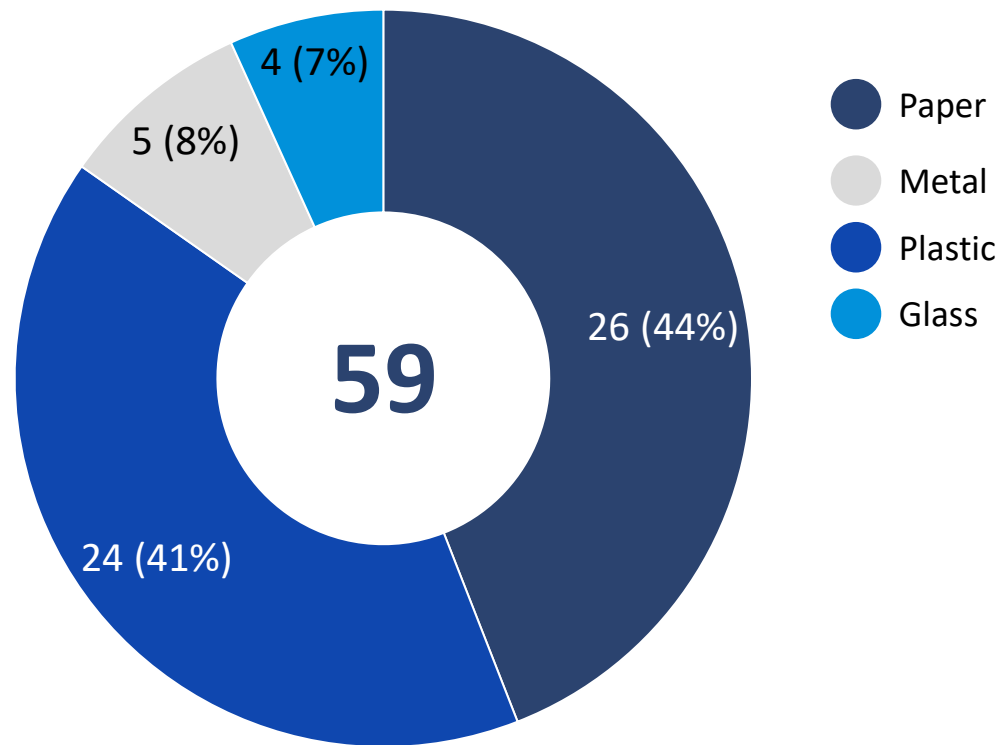
Ethiopian packaging production and consumption, 2019. USD million



Source: estimate based on Smithers Pira, trade data, and local industry association

There are ~59 companies producing packaging in Ethiopia, focusing mainly on paper and plastics

Breakdown of players in the packaging industry according to substrates



Key average figures for companies in the sector¹



10-300
Employees



< US\$ 1.5M
Initial investment

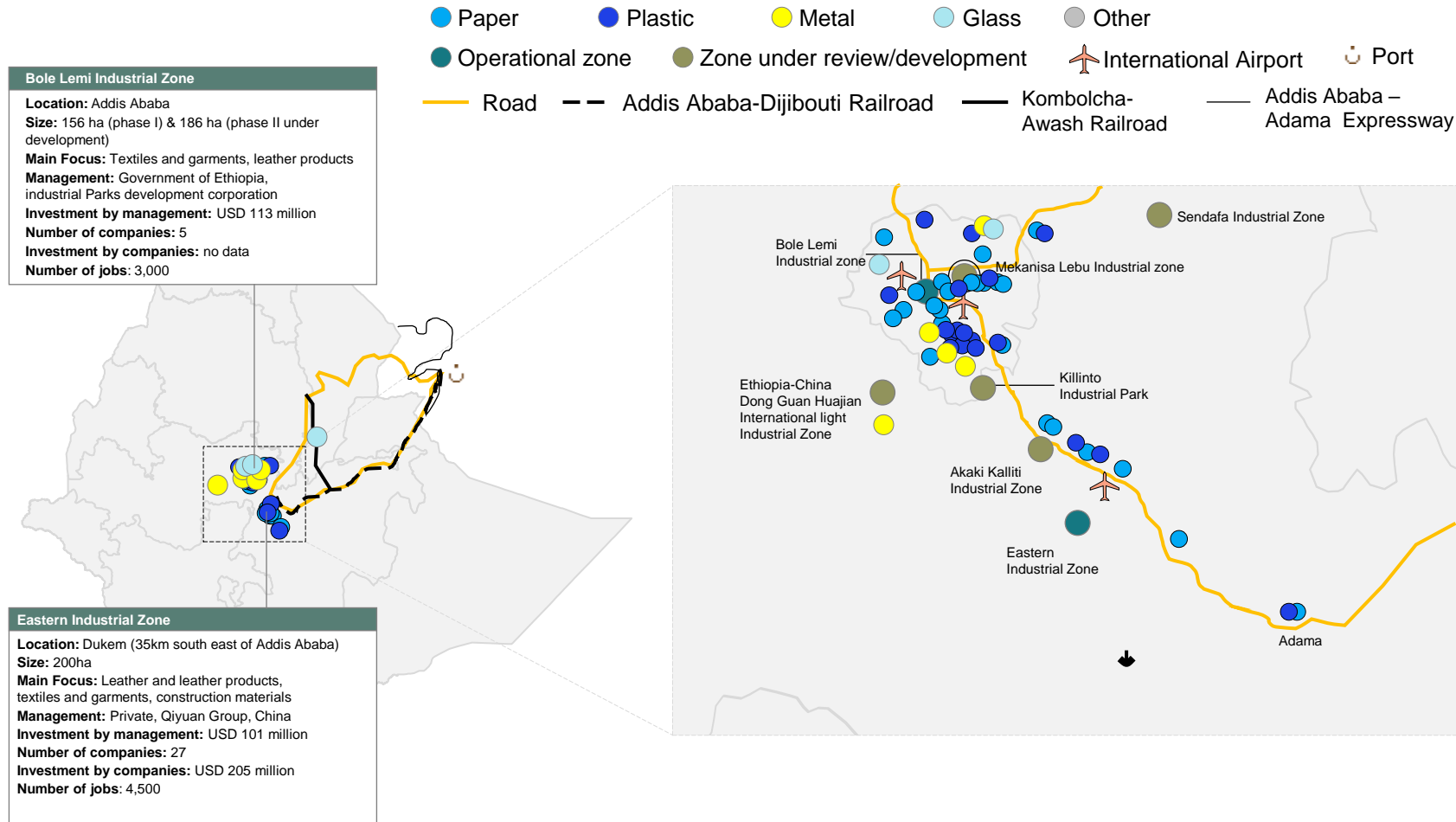


< US\$ 4M
Revenues

1. Numbers for revenues refer to only 8 companies across the different sectors, same as for employees. For the invested capital only 6 companies were considered due to available information

Almost all packaging manufacturing takes place in the vicinity of Addis Ababa and outside industrial parks

Illustrative



In general, packaging companies seem to have a **central location** (Addis region) and be **served by several transport alternatives** (road, rail and air), conditions **required** to have a decent **outflow of production**

Several **industrial zones** now under review/development are being **located next to existing packaging players** and could become **sources of additional demand**





Opportunities exist across Ethiopia's packaging value chain, particularly in manufacturing of paper/plastic intermediate inputs and recycling

Local players in Ethiopia ecosystem, # of companies

- Significant opportunity to deepen investment in the sector
- Other opportunities to fill in a gap in the sector
- Minimal opportunity for investor to participate

Detailed analysis in back-up

Preliminary

		Raw product manufacturers	Packaging conversion	Sales - Buyers of Packaging	Distribution - Final users	Collection	Recycling
	Paper						
	Corrugated board	<i>pulp</i>	5	22	Exporters, transporters and industrial manufacturers ¹		Implemented at limited scale by paper companies
	Paper board	0	0	6	Agro-processors (e.g. cereal manufacturers) and FMCG	Waste collectors collect paper waste and sell it to recyclers	
	Liquid carton	0		Agro-processors (e.g. beverage producers) and FMCG			
	Plastic						
	Rigid	0	11	Agro-processors (Beverage producers) and FMCG		Informal collectors collect used plastic containers and sell it to recyclers	1
	Flexible	0	13	Agro-processing (food and beverage producers), Exporters, FMCG,			
	Glass						
	Type I	0		Pharmaceutical companies			
	Type II	0		Pharmaceutical companies			
	Type III	4		Agro-processors, FMCG and cosmetic companies			
	Metal						
	Cans	0	2	Beverage related agro-processors and FMCG			
	Crown corks	0	5	Beverage related agro-processors and FMCG			
	Aluminum foils	0		Food and beverage, Industrial manufacturers, Pharmaceuticals			

- Retailers
- Wholesalers
- End consumers

There is a higher **concentration of players** in the packaging manufacturing part of the value chain, with a **significant gap of raw material producers**

Raw product manufacturers (when present) are **forward integrated**, also participating in packaging manufacturing

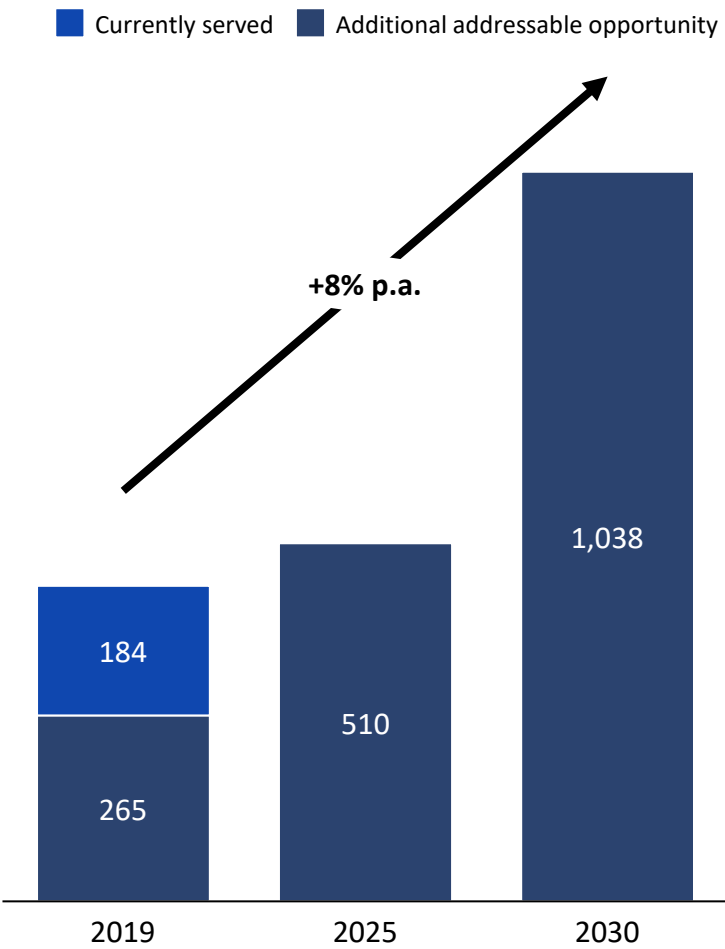
Key collection and recycling organizations in this space include:



1. Inc. textile, pharma and leather manufacturers

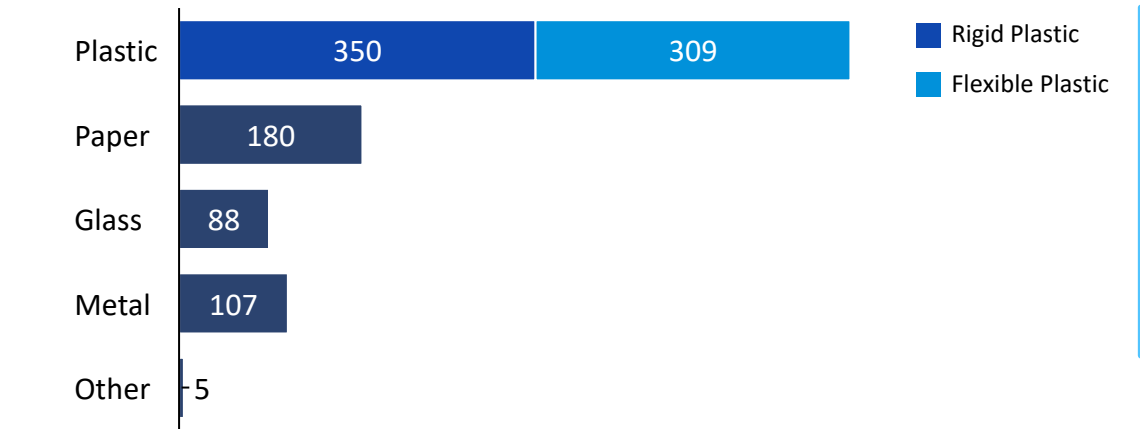
There is unmet and growing demand for packaging products in Ethiopia with ~20% of packaging imported which is highly inefficient

~\$1Bn demand of packaging products by 2030 in Ethiopia



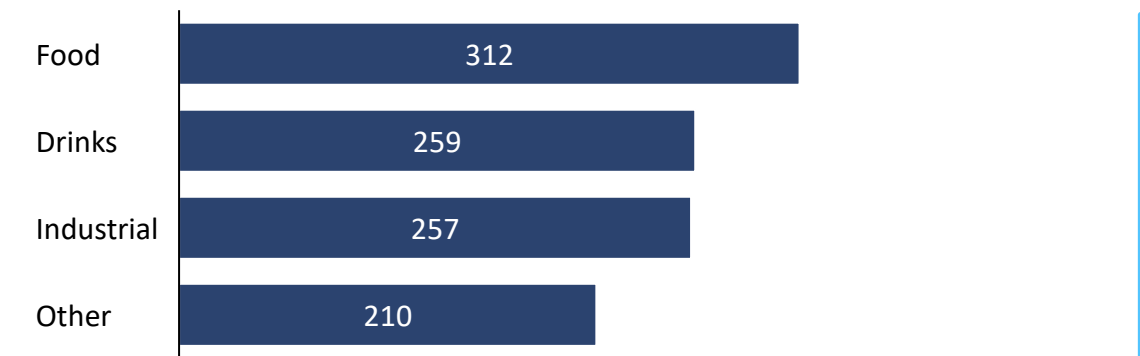
Source: estimate based on Smithers Pira, trade data, and local industry association

2030 Demand for packaging by substrate, USD mn



~64% of packaging demand will be plastic packaging in 2030

2030 Demand for packaging by end use, USD mn



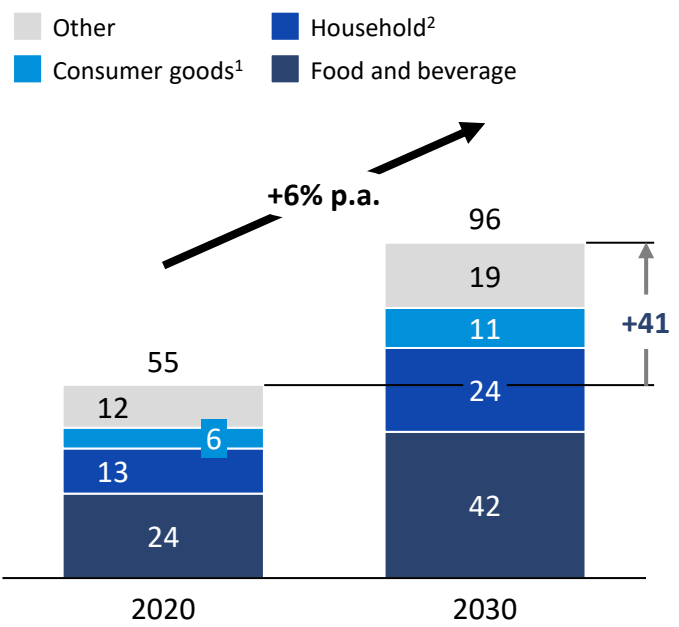
55% of the packaging demand will come from Food and Drink industry

Growth of the packaging sector will be driven by growth in consumer and industrial sectors, and other priority sectors also depend on locally produced packaging for growth

New opportunities in packaging will be driven by several trends...

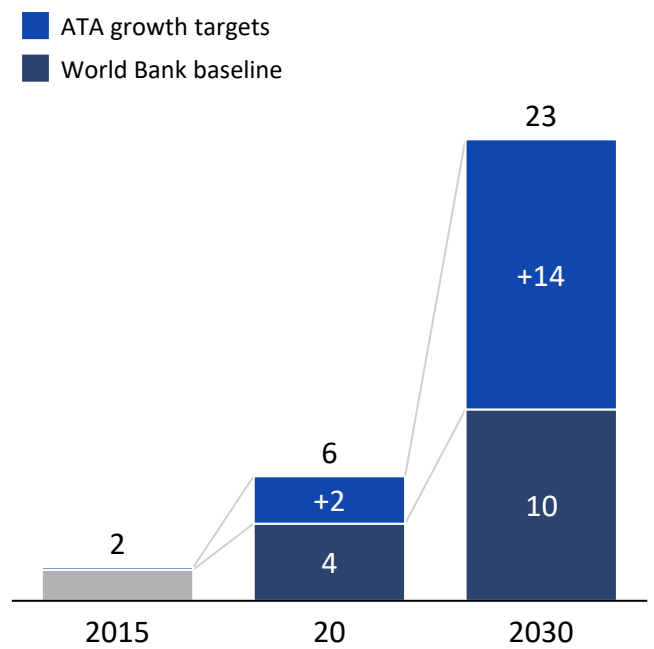
Consumer spending in the country is expected to double in 10 years ...

Total consumer spending 2020 vs 2030, US \$ Bn



... while agro-processing output could quadruple by 2030

Food and Beverage processing industry forecasted contribution to GDP, US \$ Bn



... and several sectors are also dependent on packaging for growth



Pharmaceuticals
Despite the importance of the sector to the economy, there are no local pharma packagers forcing the manufacturers to rely in imports stifling the growth




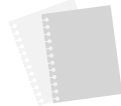


Food and beverage processing
With the increasing use of PET bottles and lack of customizable packaging in the country, manufacturers are forced to rely on expensive imports which may limit the production



Other consumer goods manufacturers (e.g., shampoo, toothpaste)
Due to the lack of customizable packaging in the country, manufacturers are forced to rely on imports to package their products which may limit the production

1. Clothing, footwear, personal care and automotive
2. Includes all types of house related expenses including maintenance, cutlery and textiles

There are 12 promising investment opportunities in Ethiopia

Investment opportunity			Rationale	Market opportunity (2030, \$m)	Investment required (\$m)
 Plastic	1	Secure supply of PET bottles to domestic market – opportunity ranging from blow-moulding to end-to-end production	Rigid plastic is one of top substrates currently and in terms of expected growth, with several agro-processors (e.g. in fruit juices and edible oils) resorting mostly to imports	95	20
	2	Secure supply of flexible plastic packaging	Growing popularity of type of packaging with limited local offer in terms of quantity and quality that could be used for key export commodities	200	35
	3	Set up cutting plant for tubes for toothpaste	Consumer good manufacturers are importing toothpaste tubes at a high premium	8	TBD
	4	Incentivize production of bio-plastics from sugar cane to reduce environmental impact of plastic use	Increasing global pressure to shift from traditional plastic to alternative materials, as well as increasing global demand for eco-friendly packaging due to awareness, esp. in Europe and USA Ethiopia’s large sugar production can supply sugar cane waste to produce plastic	<120	TBD
	5	Boost production of recycled plastic to replace imports for local producers to use as feedstock or for gasification (fuel)	All raw materials for plastic production are imported currently, yet both rigid and flexible plastics are highly consumed locally, ensuring sufficient supply of feedstock for recycling process	30	25
	6	Recycle PET plastic to converted polyester fiber for textile sector	Add value to exported PET flakes and provide raw materials to the textile sector by converting plastic to polyester fiber	30-40	75-90
 Paper	7	Set up liquid carton converting hub	Growing presence of product in Africa by Tetrapak, which could be looking for other African countries which are well connected to set-up as hub	140	TBD
	8	Set up supply of forest-certified bamboo wood pulp for paper packaging producers	Increasing demand for eco-packaging due to consumer awareness and preferences, particularly in Europe and North America, that could be served by large local supply of bamboo that is easy to ship in the pulp form	(export)	Up to 2,000
	9	Development of local production of corrugated paper – opportunity ranging from local cutting of imported corrugated paper, to boost of end-to-end production	Demand for corrugated paper across all key industries with local supply being limited in quality and quantity	70	38
	10	Boost paper recycling to replace imports for local producers to use as feedstock	Only few local players have access to locally produced feedstock while others face difficult importing processes, harming their competitiveness	40	10 to 20
 Metal	11	Increase metal cans production for food and beverage segment	Only one local player providing metal cans with fast growing demand	70	25
 Glass	12	Increase glass packaging production for beverages	Local demand being satisfied with expensive and inefficient imports	70	120

9

Backup – pitch document

Ethiopia's value proposition to attract investment in packaging manufacturing



- **Why invest in Ethiopia's packaging sector?**
 1. **There is a unmet and growing demand for packaging products**
 - Ethiopia will have a packaging manufacturing opportunity worth \$971 million by 2030
 - >50% of the opportunity is in packaging for the food and beverage sectors
 - ~20% of packaging is imported in the country, which is highly inefficient for consumer goods companies
 2. **Ethiopia's manufacturing sector is growing at 13% annually, underpinned by key competitive advantages**
 - Ethiopia's manufacturing output doubled in ~5 years and is expected to grow at 13% annually
 - The fast-growing agro-processing industry is a major consumer of packaging
 - Key ingredients for success:
 - Fast-growing consumer spending and in a large emerging market
 - Power generation capacity and the lowest electricity prices in Africa
 - Attractive labor force: Lowest wages in Africa, English as working language
 - Distribution infrastructure: Ethiopia has 121,200 km of road network, a 752 km transnational rail and air cargo services
 3. **Ethiopia is seeking to attract investment in packaging manufacturing into specialized industrial parks near the capital, which offer ideal conditions for investment**
 - 6 industrial parks specialized for agro-processing and pharmaceuticals are operating or in development in the vicinity of Addis Ababa
 - Benefits for investors include: Ready infrastructure, one-stop shop service, transaction in foreign currency, guaranteed remittance of funds and tax benefits
 4. **There is strong government support for packaging manufacturers, including through competitive tax benefits**
 - Ethiopia has provided a number of incentives for manufacturers
 - Ethiopia has put up regulatory protections for investors
 - Ethiopia is a member of regional and global trade agreements
- **We have already identified promising investment opportunities in the country**
 - There are 12 promising investment opportunities in Ethiopia
 - Example #1: Secure supply of PET bottles to domestic market
 - Example #2: Secure supply of PE flexible plastic packaging to domestic market
 - Example #3: Set up bamboo pulp production (and additional bamboo products)
- **Three main annual events to promote the packaging sector in Addis Ababa**

Ethiopia has key competitive advantages for Packaging Manufacturers



Unmet and growing demand projected to become \$971 million by 2030



Ideal conditions for manufacturing growth



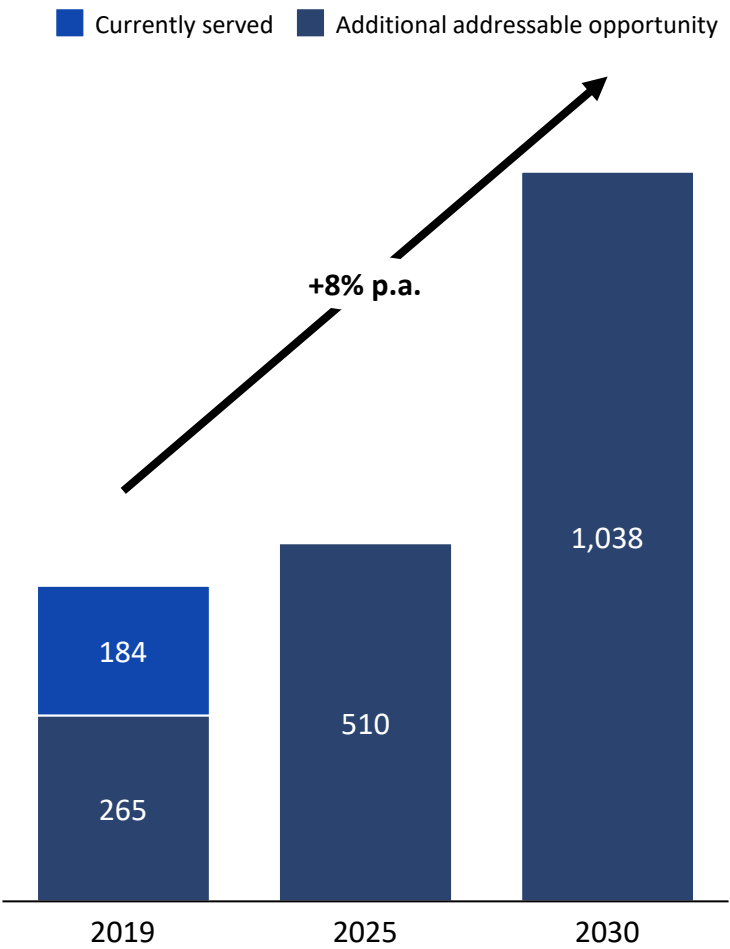
Specialized industrial parks



Strong government support

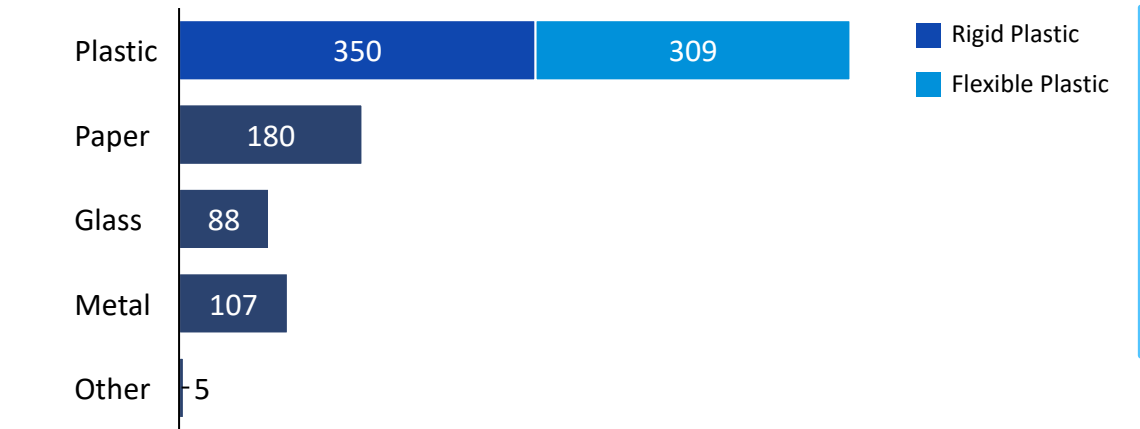
There is unmet and growing demand for packaging products in Ethiopia with ~20% of packaging imported which is highly inefficient

~\$1Bn demand of packaging products by 2030 in Ethiopia



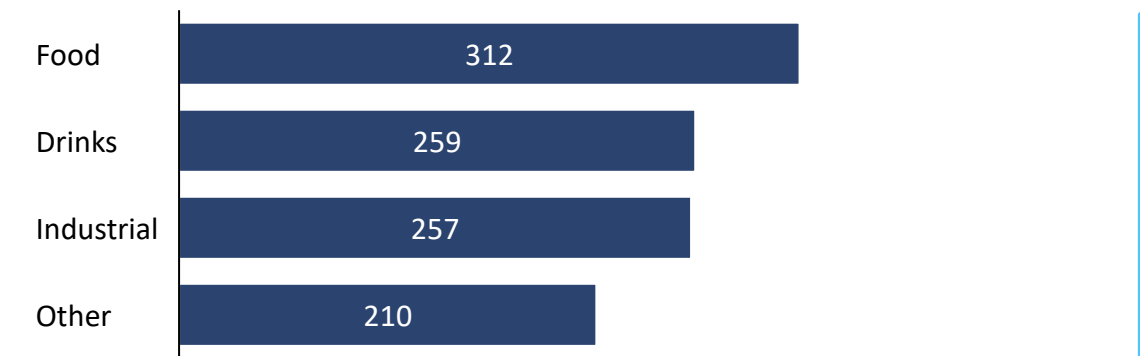
Source: estimate based on Smithers Pira, trade data, and local industry association

2030 Demand for packaging by substrate, USD mn



~64% of packaging demand will be plastic packaging in 2030

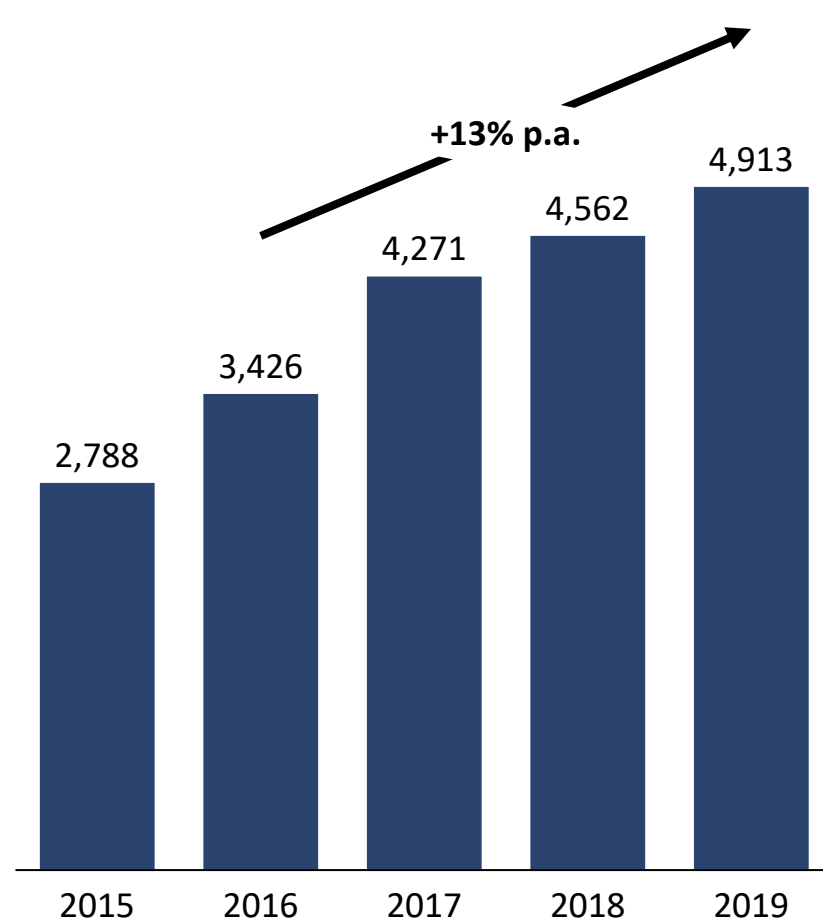
2030 Demand for packaging by end use, USD mn



55% of the packaging demand will come from Food and Drink industry

Ethiopia's manufacturing sector is growing at 13% annually, underpinned by key competitive advantages

Value added manufacturing, million USD (constant 2019 US\$)



50%

Agro-industries (food and beverage) account for about 50% of manufacturing goods

Agro-processing growth will be a major driver of opportunities in packaging



Second biggest country in Africa

- ~112 million population in 2019
- ~145 million people by 2030



Fast growing consumer base

- ~5% urbanization growth rate
- ~39 million urban population by 2030
- ~16% annual growth of total Consumer expenditure



Power Generation

- One of the highest power generation capacity in Africa with 4,206 MW with an additional 6,000 MW dam close to completion
- Lowest electricity prices in Africa with \$24 per megawatt hour



Labor

- Second largest labor force in Africa, ~55 million
- One of the lowest labor cost in Africa
- English is used as medium of instruction and working language

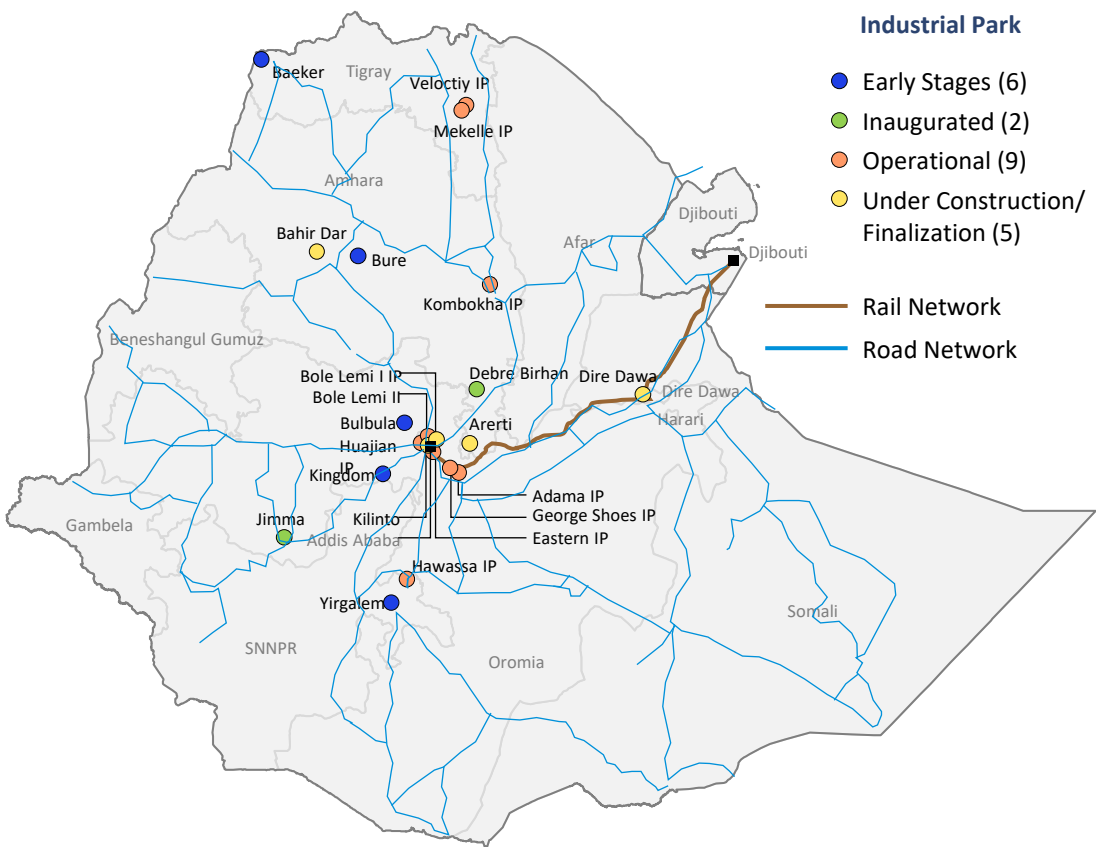


Infrastructure

- 121,000 km of road network
- 752 km of transnational rail network
- Largest air cargo terminal and air cargo operator in Africa

Specialized industrial parks in agro-processing, pharma and location near the capital offer ideal conditions for investment in the packaging sector

Industrial parks in Ethiopia



Selected industrial parks relevant for packaging manufacturers

Status	Park	Specialty	Size (hectare)
Operational	Kilinto	Pharma- ceuticals	279
	Debrebirhan	Agro processing	1000
In development	Bulbula	Agro- processing	263
	Yirgalem	Agro- processing	109
	Baeker	Agro- processing	151
	Bure	Agro- processing	155

Some of the benefits for investors include ...

- **Ready infrastructure:** fully developed infrastructure and access to utilities including a dedicated power station
- **One-stop shop service:** license, visa and work permit renewals etc. are provided at the industrial parks
- **Access to Forex:** ability to trade in foreign currency with other companies in industrial parks and guarantee for remittance of funds
- **Tax incentives:** Income tax exemption for up to 8-12 years, import and export duty exemptions



Source: EIC, Industrial Parks Incentives Packages

The government is committed to attracting investment in the manufacturing sector



Participant in regional and global trade agreements

There have been several developments that have created an enabling trade and regulatory environment to support manufacturers:

- **Ratification of the Africa Free Trade Agreement** which aims to remove tariffs from 90% of goods will boost intra-African trade, which aims to make Africa a single market of cumulative GDP of US\$ 3.4Tn
- Ethiopia is part of the **Common Market for Eastern and Southern Africa (COMESA)**
- Ethiopia is eligible for **preferential access to the U.S. market** under the African Growth and Opportunity Act (**AGOA**)
- Everything but arms free trade agreement with the **European Union**



Competitive incentives

The country has provided a number of incentives such as:

- **Exemption of payment of customs duties and other taxes** levied on imports to all capital goods
- **Exemption of Business income tax** (4 years for glass, metal and paper packaging, 2 years for Plastic packaging)
- **Loss carry forward** for up to five years


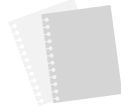




Regulatory protections

Regulatory schemes have been put in place to protect foreign investors

- **Constitutional guarantee** against expropriation or nationalization
- **Signatory of multilateral investment guarantee agency** & has concluded bilateral investment promotion & protection treaties with 30 countries
- **Right to employ** expatriate managers and experts
- **Double taxation avoidance** treaties with 18 countries

There are 12 promising investment opportunities in Ethiopia

Investment opportunity			Rationale	Market opportunity (2030, \$m)	Investment required (\$m)
 Plastic	1	Secure supply of PET bottles to domestic market – opportunity ranging from blow-moulding to end-to-end production	Rigid plastic is one of top substrates currently and in terms of expected growth, with several agro-processors (e.g. in fruit juices and edible oils) resorting mostly to imports	95	20
	2	Secure supply of flexible plastic packaging	Growing popularity of type of packaging with limited local offer in terms of quantity and quality that could be used for key export commodities	200	35
	3	Set up cutting plant for tubes for toothpaste	Consumer good manufacturers are importing toothpaste tubes at a high premium	8	TBD
	4	Incentivize production of bio-plastics from sugar cane to reduce environmental impact of plastic use	Increasing global pressure to shift from traditional plastic to alternative materials, as well as increasing global demand for eco-friendly packaging due to awareness, esp. in Europe and USA Ethiopia’s large sugar production can supply sugar cane waste to produce plastic	<120	TBD
	5	Boost production of recycled plastic to replace imports for local producers to use as feedstock or for gasification (fuel)	All raw materials for plastic production are imported currently, yet both rigid and flexible plastics consumption provides sufficient supply of feedstock for recycling process	30	25
	6	Recycle PET plastic to converted polyester fiber for textile sector, or bottle-to-bottle recycling	Add value to exported PET flakes, as polyester fiber for the textile sector, or by introducing high quality bottle-to-bottle recycling	30-40	75-90
 Paper	7	Set up liquid carton converting hub	Growing presence of product in Africa by Tetrapak, which could be looking for other African countries which are well connected to set-up as hub	140	TBD
	8	Set up supply of forest-certified bamboo wood pulp for paper packaging producers	Increasing demand for eco-packaging due to consumer awareness and preferences, particularly in Europe and North America, that could be served by large local supply of bamboo that is easy to ship in the pulp form	(export)	Up to 2,000
	9	Development of local production of corrugated paper – opportunity ranging from local cutting of imported corrugated paper, to boost of end-to-end production	Demand for corrugated paper across all key industries with local supply being limited in quality and quantity	70	38
	10	Boost paper recycling to replace imports for local producers to use as feedstock	Only few local players have access to locally produced feedstock while others face difficult importing processes, harming their competitiveness	40	10 to 20
 Metal	11	Increase metal cans production for food and beverage segment	Only one local player providing metal cans with fast growing demand	70	25
 Glass	12	Increase glass packaging production for beverages	Local demand being satisfied with expensive and inefficient imports	70	120

17

Produce pre-form bottles and other rigid plastics

Description/rationale of the investment opportunity

Imported PET pre-forms and other rigid plastic packaging amounted to ~\$70 million in 2019 showing there is an opportunity for new companies to fill the gap

Opportunity

~\$205 million by 2030

Other sources of value

PET and HDPE are relatively easy to recycle and Ethiopia has low levels of recycling with most of the solid waste ending up in landfills

Key Product

PET bottles

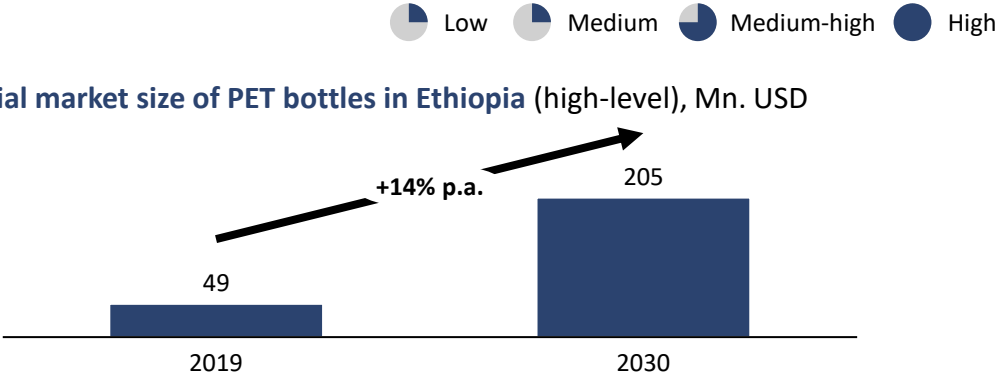
HDPE bottles

Key Enablers

Requires scalability and mass production

Access to raw materials and forex

Potential market size of PET bottles in Ethiopia (high-level), Mn. USD



Key assumptions

Average price to become \$1,779 /ton in 2030

Total demand for PET and HDPE plastics is equivalent to 70% of total rigid plastic packaging demand

Capital Requirements

- Chinese producer Zhejiang Zhengkai invested \$ 507 million in PET bottle chip plant with annual capacity of 1,2 million tons (\$423/ton)
- Required investment for 2030 demand levels: ~\$49 million

1. Total capital required summing PET bottle chips (7M\$) and blow molding part (3M\$)

Increase local production of flexible plastic packaging



1. From 623,500 in 2019 to 677,600 tons in 2024
Source: Euromonitor, PIRA

Description/rationale of the investment opportunity

Flexible plastics like pouches are gaining popularity as less material is required to package goods

This popularity can gain further momentum as the packaged food industry in Ethiopia is set to grow 1.7% p.a. between 2019 and 2024¹

Most of the volume growth will come from biscuits (3.2% p.a.), cereals (3.1% p.a.) and rice and pasta (2.6% p.a.) - all suitable candidates for flexible plastic packaging

Imported flexible packaging amounted to ~\$76 million in 2019 showing there is an opportunity for new companies to fill the gap

This opportunity could enable exporters within the agro-processing industry meet quality requirements from global markets and become more competitive

Key Product

Wrap film, Pouches, Cutter box and case ready film

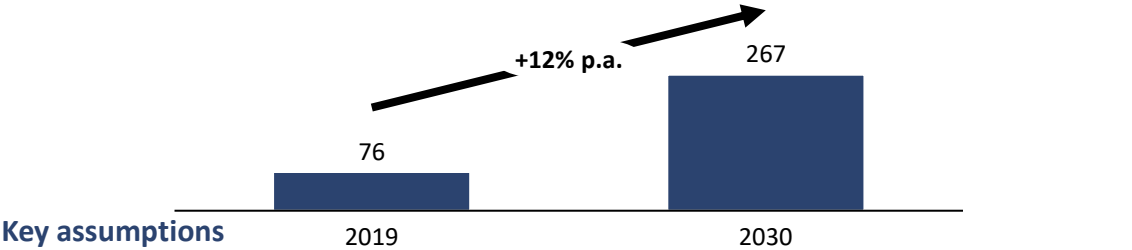
Key Enablers

Requires scalability and mass production

Access to raw materials and Forex

Strong commercial relationship between packaging manufacturers and agro-processors

Potential market size of food and beverage flexible plastics packaging in Ethiopia (high-level), Mn. USD



Key assumptions

average price will be \$3,069 /ton in 2030

Capex requirement for extruding and converting flexible plastics is \$ 571/ton

Capital Intensity

- Extrusion + converting option:** Borealis LDPE plant with annual capacity of 350,000 tons per year cost \$ 200 million (~ \$ 571/ton)
Required investment for 2030 demand levels: ~\$50 million

Set up bamboo pulp production (and additional bamboo products)



- 1. Bamboo crop annual sustainable yield of 30 m3/ha/yr; Dry density of 0.5 tonnes/m3; Chemical pulping yield of 50%, CTMP of 70%
- 2. Assumed size of production between 2.3-3.3 M tons of pulp per year

Source: Euromonitor, PIRA

Description/rationale of the investment opportunity

Ethiopia was the 9th largest exporter of bamboo raw materials in 2015, holding 3% of the global stock of bamboo with 1.4M hectares, but only 0.02% of the international trade

Bamboo is regarded as environmentally friendly and its rising popularity makes it an option for several end-uses such as personal care (e.g. tissues)

GoE plans to promote expansion of the national stock of bamboo to 1.6M hectares by 2030 (~14%)

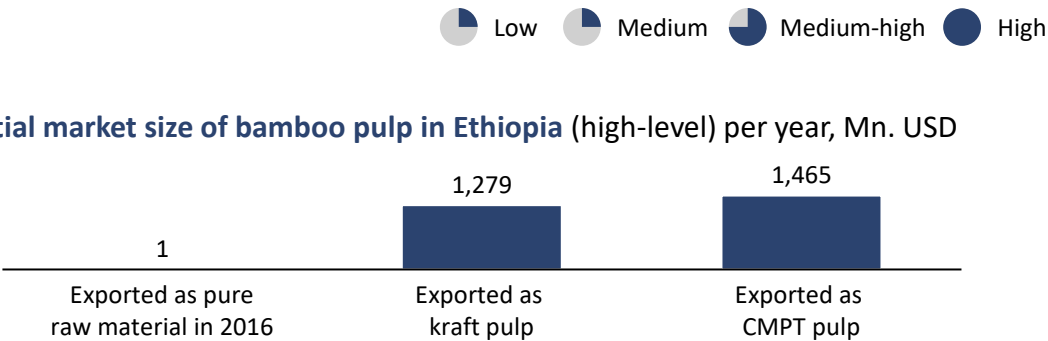
Bamboo pulp could be a competitive product as it is easily shipped to global markets with demand

Key Product

Mechanical Pulp (CMTP) : yellowish/grey tone with high opacity, smooth surface, higher absorbency; low cost product

Chemical Pulp (Kraft) : High quality pulp with better properties of strength and brightness

Potential market size of bamboo pulp in Ethiopia (high-level) per year, Mn. USD



Key assumptions

- Crop area: 1.4M hectares of bamboo in Western Ethiopia, of which 0.93M ha (67%) is lowland type
- Pulp yield: 1 hectare would yield 7.5 tons of kraft pulp, 12 tons of CTMP¹
- Price: 550 USD/ ton for kraft pulp, 450 USD/ton for CTMP

Capital Intensity

- Higher capital intensity than for paper mill
- Capital costs: 1500-2000 USD/ton for kraft pulp (5-7 bn USD), 1000-1500 USD/ton for CTMP (4-7 bn USD)²
- Efficient size (World class greenfield mill): 1-2 million ton for kraft pulp, 300-500 thousand ton for CMPT

Key enablers to materialize the opportunity

- Proximity between pulp mill and bamboo forests
- Stable supply from bamboo crops
- Regulatory framework in place to provide assurance to investors regarding land use and to minimize frictions from a fiscal and environmental standpoint
- Logistic infrastructure to bring bamboo to mill and then from mill to Port (e.g. 600 km asphalted road linking Benishangul Gumuz region to Addis Ababa)

There are three main annual events happening to promote the packaging sector in Addis Ababa

Non-exhaustive



Annual meeting point for the plastics, printing and packaging machinery and equipment industry in Addis Ababa, hosted by German company Fairtrade Messe which runs similar events in countries like Kenya and Nigeria



Compack is a professional expo about packaging processing technology, printing, logistics and warehousing organized by Indian company Smart Expos which holds events in Nepal, Bangladesh, South Africa, Kenya and others. The event was held in Addis Ababa for the first time in 2020



Complast is focused on the plastic packaging and machinery industries and is also hosted by Smart Expos in countries such as Nigeria, Kenya, and South Africa. The event was held in Addis Ababa for the first time in 2020



153

exhibitors from



18

countries



3,205

exhibitors from 20 countries



~80%

of exhibitors foreign and the rest Ethiopian