REGULATORY IMPACTS

New EU rules on packaging and packaging waste, and bisphenol A

State of play for Ghanaian agri-food operators

May 2026

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Contents

List of abbreviations

BPA	Bisphenol A
ECOWAS	Economic Community of West African States
EPA	Environmental Protection Authority (Ghana)
EPR	extended producer responsibility
EU	European Union
FAGE	Federation of Associations of Ghanaian Exporters
FDA	Food and Drugs Authority (Ghana)
GCTS	Ghana Cocoa Traceability System
GEPA	Ghana Export Promotion Authority
GEXIM	Ghana Export-Import Bank
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit [German Society for International Cooperation]
GSA	Ghana Standards Authority
HDPE	high-density polyethylene
HS	Harmonised System (as in HS Code)
IBCs	intermediate bulk containers
IOPG	Institute of Packaging Ghana
ISO	International Organization for Standardization
KNUST	Kwame Nkrumah University of Science and Technology
LDPE	low-density polyethylene
MESTI	Ministry of Environment, Science, Technology and Innovation (Ghana)
MOH	Mineral oil hydrocarbons
MoTAI	Ministry of Trade, Agribusiness and Industry (Ghana)
MSMEs	micro, small, and medium sized enterprises
PE	polyethylene
PET	polyethylene terephthalate
PFAS	per- and polyfluoroalkyl substances
PP	polypropylene
PPWR	Packaging and Packaging Waste Regulation 2025/40
rPET	recycled polyethylene terephthalate
SMEs	small and medium-sized enterprises
SPEG	Pineapple Producers and Exporters of Ghana (formerly Sea-Freight Pineapple Exporters of Ghana)
UAE	United Arab Emirates
USA	United States of America
UV	ultraviolet

Summary

The European Union (EU) has adopted the new Packaging and Packaging Waste Regulation (PPWR, Regulation 2025/40) and the Bisphenol A Regulation (BPA Regulation 2024/3190) in response to growing environmental concerns and increasing scientific evidence about safety risks. These regulations introduce stricter requirements for agri-food exports to the EU, focusing on recyclability, reusability, traceability, compostability, and chemical safety of food-contact packaging materials. The requirements will be phased in progressively until full implementation is achieved.

Transitioning towards more sustainable food packaging is expected to create challenges for producers of agri-food products. The impact of these regulatory changes on producers in low- and middle-income countries has not been specifically analysed, which complicates efforts to develop technical and potential assistance strategies to respond to anticipated challenges. As a first step towards greater insights into these challenges, this pilot case study examines the impacts of the PPWR and BPA Regulation on agri-food operators in Ghana that sell packaged products in the EU. It assesses the current sources of packaging used in agri-food exports, and evaluates the capabilities of the local packaging manufacturing sector to adapt to the new regulations. It includes outcomes from interviews conducted with policymakers and regulators, packaging manufacturers, and packaging users, particularly those engaged in exports to the EU.

The findings reveal that **awareness of the new PPWR and BPA rules is very low across regulatory bodies, manufacturers, and exporters**, with awareness about the BPA rules being lower than about the PPWR.

Regarding the PPWR's requirements on recyclability, reusability, and compostability, many companies reported current use of recyclable materials, showing a reasonable level of understanding and practice, especially in relation to recyclability. However, these practices are not guided by the PPWR requirements and therefore fall short of full compliance. For example, standardised recyclability testing in Ghana is scarce, while systems for sorting, grading, and certification are largely absent. Plastic recycling is dominated by informal small and medium-sized enterprises (SMEs) and relies heavily on informal waste collectors, with high electricity costs and poor-quality feedstock limiting output. Moreover, standardised recyclability assessments and specific migration tests for contaminants such as BPA and per- and polyfluoroalkyl substances (PFAS) are lacking, while the high cost and limited availability of specialised testing disproportionately affect SMEs. Digital traceability is also limited, making access difficult for third parties.

Most companies interviewed expressed their willingness to innovate and adapt through the design of 'fit-for-purpose packaging' that minimises waste. Nonetheless, the financial burden of compliance emerged as a major challenge. High costs were repeatedly cited, associated with redesigning packaging, testing for contaminants, retraining staff, and in some cases installing new production lines. Additional challenges include Ghana's non-alignment with EU rules and difficulties in sourcing EU-compliant packaging materials, particularly when alternatives currently come from Asia or the Middle East, where compliance with EU standards is not guaranteed. Therefore, without reliable local collection and sorting systems, meeting PPWR requirements – such as recycled content and large-scale recyclability – remains difficult as certified recycled inputs and verifiable audits are unavailable. Stakeholders noted that implementing a national extended producer responsibility (EPR) policy could help build local capacity and better position Ghana to meet future PPWR requirements.

Five essential steps for Ghana

The study identifies five essential steps for Ghana to achieve compliance with the new EU regulations:

- Raise awareness and preparedness among packaging stakeholders regarding PPWR and BPA rules
- Improve recyclability, reusability, and compostability of packaging materials
- Strengthen traceability, labelling, and documentation systems
- Enhance chemical testing capacity for packaging materials
- Develop a national policy on extended producer responsibility (EPR) obligations.

1. Background and objectives

In January 2025, the European Union (EU) adopted the Packaging and Packaging Waste Regulation (PPWR) 2025/40, replacing Directive 94/62/EC. The previous Directive evolved over time, with EU Member States applying diverging rules to attain the same EU-wide objectives, especially regarding plastic packaging. This created fragmented rules and administrative burdens. The PPWR addresses these challenges by establishing directly applicable, harmonised requirements across the EU.

As part of the EU's overall sustainability strategy, the PPWR sets new rules for packaging design, waste prevention, reuse and recyclability, and recycled content in plastics. It introduces stricter sustainability requirements for all types of packaging, including imported (packaged) food products. Key obligations include minimising substances of concern, ensuring recyclability, using minimum recycled content, enabling compostability where required, reducing excessive packaging, and applying harmonised labelling and environmental claims.

Additionally, the PPWR requires packaging to be accompanied by the correct documentation, so supply chain documentation will become more important. All operators in the supply chain will be responsible for sharing information to prove compliance with the PPWR. Packaging manufacturers must demonstrate conformity with the new requirements, and must prepare technical documentation (Annex VII) and an EU declaration of conformity for each packaged product (Art. 39 and Annex VIII). This declaration needs to be continuously updated (in case of changes in packaging, legal requirements, etc.). When packaged products are imported into the EU, the declaration of conformity and other manufacturer's obligations are transferred to the EU importer.

EU countries can individually request non-EU producers of packaged products to appoint an authorised local representative for extended producer responsibility (EPR) when these products enter their territory for the first time (even if they have already been on the market in other EU countries). This authorised national representative will carry out the obligations related to the management of packaging and of packaging waste in that country on behalf of the non-EU producer.

The PPWR applies from **12 August 2026**, though specific rules take effect on different timelines. Its scope complements existing laws, including the Single-Use Plastics Directive (2019/904).

In addition, Regulation 2024/3190 (the BPA Regulation) bans the use of bisphenol A (BPA) and other bisphenol derivatives in plastic food contact materials, including varnishes and coatings, printing inks, and adhesives. It requires that packaged food products placed on the EU market comply with its requirements by **20 July 2026**, with limited exceptions.

These changes add to an already complex regulatory landscape, with room for variation in how EU Member States implement certain measures. The implications for non-EU exporters, particularly low- and middle-income countries, are not well understood. To address this gap, COLEAD commissioned Farrelly Mitchell to assess potential impacts on export flows and investment, using Ghana as a case study. The study was implemented using semi-structured interviews with key stakeholders, including exporters of agri-food products to the EU, packaging manufacturers, and policymakers in Ghana. The agri-food export sector was targeted in consultation with COLEAD. In October 2025, an in-person validation workshop was convened in Accra, Ghana, bringing together over 30 key stakeholders to review and refine the findings of this study.

2. Packaging in agri-food exports to the EU – state of play in Ghana

This section presents findings on the current state of play of Ghana's packaging industry, based on information generated through semi-structured interviews and complemented by a desktop review. It gives an overview of key stakeholders in the industry, packaging sources (including manufacturing), and a general appraisal of Ghanian agri-food operators' awareness of EU packaging rules.

2.1. Key stakeholders in Ghana's packaging industry

Operators in Ghana's packaging industry include several companies manufacturing both cartons and plastic packaging, as well as agri-food exporters working independently as individual companies, jointly as associations, or in federations of associations.

At the regulatory level, Ghana's packaging industry is governed by a multi-institutional architecture, with the Ministry of Trade, Agribusiness and Industry (MoTAI) working as the overarching apex ministry on all trade related issues. In addition, the Ghana Standards Authority (GSA), the Food and Drugs Authority (FDA), and the Environmental Protection Authority (EPA) play direct operational roles with key businesses in the industry. As an agency under MoTAI, the GSA sets packaging standards and their testing requirements, while the FDA enforces these requirements. In addition to these regulatory authorities, the Ghana Export Promotion Authority (GEPA) operates an export school that conducts periodic training for agri-food exporters, while the non-governmental Institute of Packaging Ghana (IOPG) provides policy advocacy support.

Table 1 below summarises the key packaging stakeholders.

2.2. Ghana's packaging usage for agri-food exports

Various packaging materials are used in Ghana's food industry and for products targeting both domestic and export markets. These materials are either manufactured locally or imported, based on market requirements and other business considerations including cost, branding, durability, product type, convenience, and sustainability.

Locally manufactured packaging materials

Locally sourced packaging materials are largely made of plastic and include low-density polyethylene (LDPE), high-density polyethylene (HDPE), and polyethylene terephthalate (PET). Due to their affordability, flexible plastic packaging materials (sachets, bags, pouches) are usually used by small operators (micro, small and medium sized enterprises – MSMEs), and may be sourced from local firms such as Everpack, Packaging Matrixx, Finepack, UNIPACK, and Ecopack. There are also corrugated cardboards, woven polypropylene (PP) sacks (for gari, smoked fish), and baskets that may be used for fresh produce, sold on local markets.[1]

1 GMI Research (2025) Ghana Plastic Packaging Market and Analysis Report – Opportunities and Forecast 2025–2032. Dublin, GMI Research.

Table 1: Key packaging stakeholders and their influence in the sector

Stakeholder	Role/function	Primary interest
Ministry of Trade, Agribusiness, and Industry (MoTAI)	Policy, industrial development, export promotion	Economic growth, export competitiveness, industrial policy alignment
Ghana Standards Authority (GSA)/Standards Bodies	Standards development and enforcement	Harmonised standards, conformity assessment
Food and Drugs Authority (FDA)	Food safety regulatory enforcement	Safety of food products (not compromised by packaging)
Ministry of Environment, Science, Technology & Innovation (MESTI)/EPA	Environmental regulation, waste management oversight	Environmental protection, compliance with EU PPWR/BPA, circular economy
Packaging manufacturers (large and SME)	Design and production of packaging (paper, plastics, glass, metal)	Market access, cost of compliance, technology access
Agri-food exporters and producers	Use of packaging for exports (cocoa, fruits, processed foods)	Market access to EU, regulatory compliance, cost-efficiency
Recyclers and waste management firms	Collection, sorting, recycling, end-of-life processing	Feedstock security, circular value chains, profitability
Development organisations (World Bank, AfDB, GIZ)	Provision of finance, grants, technical assistance	Project outcomes, returns, sustainability
Industry associations (Ghana Chamber of Commerce, packaging associations)	Advocacy, capacity building, knowledge sharing	Member support, policy influence, standards uptake
Consumers/civil society/NGOs	Watchdogs, advocacy on safety and sustainability	Product safety, environment, affordability

Sourcing packaging materials such as corrugated boxes, woven bags, and flexible plastic films from local manufacturers shortens lead times for small businesses and substantially lowers their procurement costs by avoiding volatilities due to foreign currency exposure.

However, local packaging may fall short in barrier protection due to weaker heat, oxygen, and moisture barrier properties, affecting shelf life and export compliance. The aesthetics and labelling quality of local packaging materials often lag behind many imported alternatives, and consumers tend to prefer imported materials. Local manufacturers still rely on imported raw materials, exposing them to supply chain delays and currency fluctuations.

Imported packaging materials

High barrier packaging such as retort pouches, multi-layer laminated films, rigid jars and PET bottles are often imported (or produced using imported materials), and are preferred for their long shelf life and safety standards. Due to their higher perceived quality, agri-food exporters tend to import such packaging rather than sourcing locally to meet the expectations of their export markets. Imported packaging often incorporates advanced manufacturing features such as heat-sealing, nitrogen flushing, and laminated barrier layers, and has high moisture and oxygen barrier properties, making it particularly suitable for perishable goods destined for the export market.

However, imported packaging is associated with higher costs, including customs duties, and can be susceptible to foreign exchange volatilities. This can increase the overall cost of food items sold in imported packaging. Additionally, imports may also be subject to longer lead times of 40to 45 days, delaying production and export operations.

Table 2 summarises the types of packaging materials that are used in Ghana to export common agri-food products to global markets, including the EU market. European countries including Belgium, Denmark, France, Germany, Italy, Netherlands, Poland, and Spain are key destinations for Ghanaian agri-food exports.

Table 2: Packaging types used for exported products by the agri-food sector in Ghana

Exported product (example HS)	Typical packaging material/format	Common export destinations
Cocoa beans (HS 1801)	Jute or PP sacks; palletised	Belgium, Germany, Japan, Malaysia, Netherlands, USA
Cocoa liquor/paste, butter, powder (HS 1803–1805)	Foil-lined multilayer bags in cartons; food grade drums; big bags	Germany, Netherlands, Switzerland, Türkiye, UK, USA
Cashew nuts – in shell (HS 0801.32)	Woven PP sacks with liners	India, Vietnam
Cashew kernels (HS 0801.31; HS 2008 for roasted)	Vacuum pouches in tins or cartons; retail PET jars	Germany, Netherlands, UAE, UK, USA
Shea nuts/shea butter (HS 1207/HS 1515.90)	Nuts: PP sacks; butter: steel drums, HDPE pails/jerrycans; retail jars	Denmark, France, Netherlands, UK, USA
Canned tuna (HS 1604)	Lacquered tin cans in corrugated cartons; retail multipacks	France, Germany, Italy, Spain, UK, USA
Fresh pineapple (HS 0804.30)	Corrugated telescopic cartons with liners; plastic punnets (air freight)	Belgium, France, Netherlands, Spain, UK
Fresh mango (HS 0804.50)	Vented corrugated cartons with pads; sometimes modified atmosphere packaging (MAP) films	France, Germany, Netherlands, UAE, UK
Fruit juices and concentrates (HS 2009)	Aseptic cartons (e.g., Tetra Pak); PET bottles; bulk in aseptic bags/drums	Benin, Burkina Faso, Côte d'Ivoire, Nigeria, Togo; also UK (diaspora)
Yams (HS 0714.50)	Jute/mesh sacks; retail cartons for air shipments	Canada, Italy, Netherlands, UK, USA
Palm oil/palm kernel oil (HS 1511/1513)	Steel drums, intermediate bulk containers (IBCs), flexitanks; retail PET HDPE bottles	Benin, Burkina Faso, India, Netherlands, Nigeria, Togo
Coconut products (desiccated, oil, charcoal) (HS 0801/1513/3802)	Poly-lined cartons (desiccated); drums/IBCs (oil); PP bags (charcoal)	Germany, Netherlands, UAE, UK, USA
Dried chilli/pepper and spices (HS 0904/0907)	Laminated pouches; poly bags in corrugated cartons	France, Italy, Netherlands, UK, USA
Dried hibiscus/leafy botanicals (HS 1211)	Food-grade poly bags in cartons; PP sacks	Germany, Mexico, Poland, UK, USA

There are numerous challenges associated with the packaging materials traditionally used for Ghanaian food exports. Table 3 below summarises the food safety and environmental risks of these packaging materials and their component ingredients. Many of the component packaging materials potentially present significantly high risks to both humans and the environment. For example, BPA and tin migration could arise from the use of lacquered tins that are currently used to package processed food items such as soups and fish for both local and export markets.

Several other packaging components, such as epoxy, mineral oil, adhesives, and aluminium, are high-risk ingredients that could migrate into pre-packaged food products and negatively affect consumers. Additionally, because of their low recyclability, materials such as PP sacks with liners, foil-lined multilayer bags in cartons, vacuum pouches, and laminated pouches could be environmentally unsustainable.

Sourcing of packaging materials used for agri-food exports

Packaging materials used in Ghana's agri-food exports are either produced within the country or mainly sourced from Europe and Asia, especially where there have been challenges with the quality of locally produced materials (see Figure 1 below). For example, some members of the Pineapple Producers and Exporters of Ghana (SPEG) reported that they had previously changed their local sources of certain packaging materials for imported ones. European countries, including Italy and Spain, provide materials such as laminates for the local manufacturing industry.

With respect to imported packaging materials (rather than packed agri-food products), shipments from Northern Europe enter Ghana via Western Mediterranean ports through the Tema port in Ghana, although the Takoradi port handles some containerised cargo.[2] In addition, Asia and the Middle East (Kazakhstan, UAE) are significant sources of packaging cargo entering Ghana. Imported cargo from China (the origin of about 62% of imported plastics),[3] India, and Türkiye enters Tema port by means of long-haul services that feed into West African string services through transshipment hubs. Similarly, cargo from the Middle East also uses the Tema port as a primary discharge point.

Figure 2 below summarises the flow of packaging materials into Ghana for all types of uses, and the re-exports into regional markets of those not used within Ghana.

Other African countries including Egypt, Morocco, and South Africa are sources of glue and cardboard boxes that serve the Ghanaian packaging industry. The annual volumes of plastic (HS 3923) and carton (HS 4819) packaging materials imported into and exported from Ghana over the period 2010 to 2023 is presented in Figure 3 below.

Between 2010 and 2023, Ghana recorded an average annual trade in plastic packaging of US$30.7 million in imports and $54.3 million in exports, compared with $25.5 million in imports and $8.4 million in exports for carton packaging, indicating stronger trade flows for plastics than cartons. (However, both HS codes 3923 and 4819 represent broader sub-categories of packaging that encompass several other articles that are not necessarily used for agri-food exports.)

2 Ghana Ports and Harbours Authority (2023) Tema port to become first port of call in West Africa. News, 15 December.
3 GPMA (2019) Ban importation of flexible plastic bags from China - GPMA to govt. Ghana Plastic Manufacturers Association, 7 May.

Table 3: Packaging materials used by the agri-food sector in Ghana, main components

Packaging material	Main components	Key chemicals/ compounds	Food contact safety risk	Environmental risk
Aseptic cartons (Tetra Pak)	Paperboard + PE + aluminium	Cellulose, PE, aluminium, adhesives	High: aluminium/ adhesive migration	High: hard to recycle multi-material
Corrugated cartons	Kraft paper	Cellulose, lignin, starch	High: mineral oil migration	Low: biodegradable/ recyclable
Flexitanks	PE + PP woven	PE, PP, nylon	Medium: additive migration	High: multi-material
Foil-lined multilayer bags in cartons	Aluminium + plastics + paper	Aluminium, PE, PP, PET, adhesives	High: aluminium/ adhesive migration	High: multi-material, poor recyclability
Food-grade drums (plastic)	HDPE or PP	HDPE, PP, ultraviolet (UV) stabilisers	Medium: additive migration	Medium: recyclable but bulky
HDPE pails/jerrycans	HDPE	HDPE, slip agents	Medium: additive migration	Low: recyclable if clean
Jute bags	Cellulose and lignin	Mineral oil hydrocarbons (MOH)	High: mineral oil migration	Low: long-life, recyclable
Laminated pouches	PET/PE, PET/aluminium/PE	PET, aluminium, PE, adhesives	High: adhesive/ aluminium migration	High: very low recyclability
Oil drums/IBCs	Steel or HDPE	Iron, epoxy/HDPE	High: lining/additive migration	Low: recyclable/long life
Palletised (wood)	Wood	Cellulose, lignin, methyl bromide	High: fumigation residue risk	Low: biodegradable/ renewable
Poly bags	LDPE or HDPE	LDPE, HDPE, slip agents	Medium: additive migration	Medium: recyclable if collected
Poly-lined cartons	Paperboard + PE	Cellulose, PE	High: mineral oil/additive migration	Medium: PE lining reduces recyclability
PP sacks/woven PP sacks	PP polymer	PP, UV stabilisers, antioxidants	Medium: additive migration	Medium: recyclable but low rates
PP sacks with liners	PP + PE	PP, PE, slip agents, antioxidants	Medium: additive migration	High: mixed material, hard to recycle
Retail cartons (air shipments)	Corrugated fibreboard	Cellulose, lignin, starch	High: mineral oil migration	Low: biodegradable/ recyclable
Retail PET jars/bottles	PET	PET, antimony trioxide	Medium: antimony migration	Low: highly recyclable
Steel drums	Carbon steel	iron, carbon, zinc, epoxy coating	High: epoxy migration	Low: long-life, recyclable
Tins (lacquered)	Steel + lacquer	Steel, tin, epoxy resin	High: BPA/tin migration	Low: recyclable metal
Vacuum pouches	Multi-layer	Polyamide (PA), PE, PET, adhesives	Medium: adhesive/amine migration	High: multi-material, hard to recycle

High risk (red) = Significant migration or contamination potential, often strictly regulated (e.g. BPA, aluminium, mineral oils).
Medium risk (orange) = Some migration potential; requires testing for compliance.
Low risk (green) = Generally inert, minimal migration when food-grade.

Figure 1: Flow of imports of packaging materials to Ghana

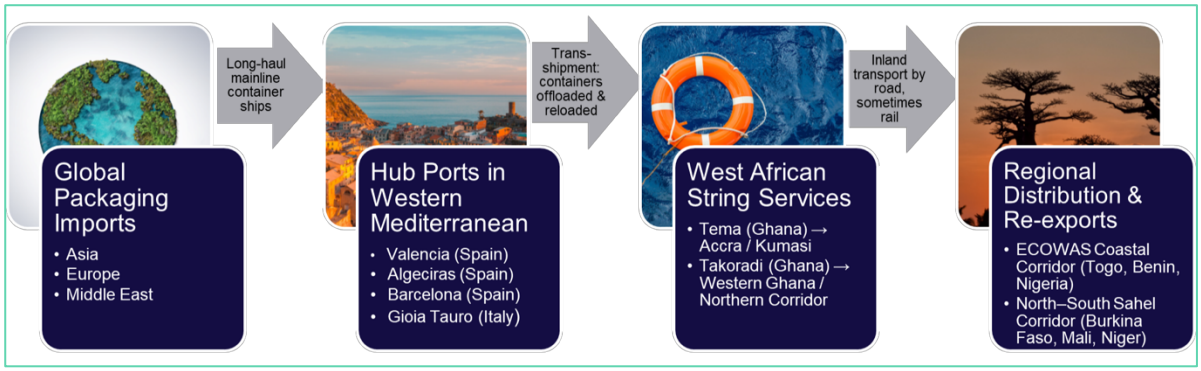
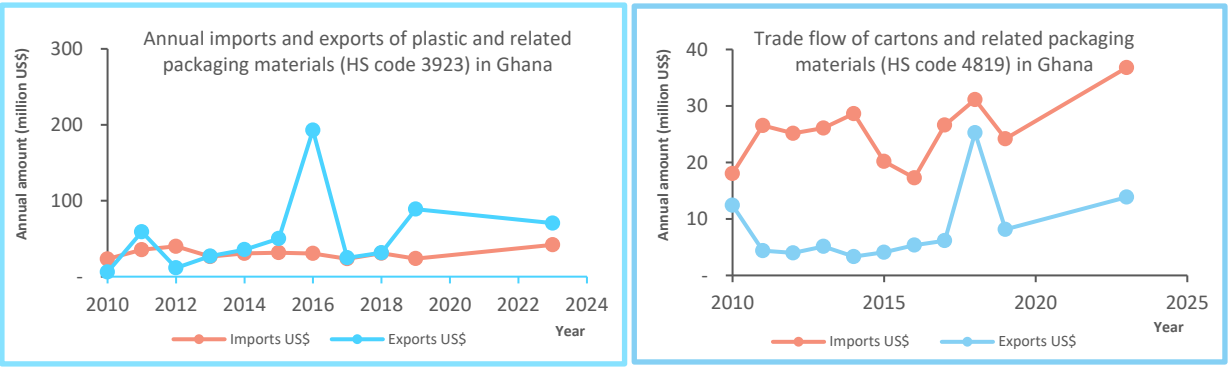


Figure 2: Annual imports and exports of plastic and carton packaging and related materials by Ghana (US$)



Source: TrendEconomy (2024) Annual international trade statistics by country 2022–2023: Ghana.

As an indicator of the volumes of trade flows in packaging materials to and out of Ghana, Table 4 provides a snapshot of the annual importation or use of packaging materials by a major exporter of agri-food products to the EU. This exporter's packaging use alone represents an annual volume of 327 MT valued at US$ 840,000.

Table 4: A typical annual trade volume of packaging materials used by a major agri-food exporter to the EU

Type of packaging used	Source of packaging materials	Typical volume used annually (kg)	Approximate value (US$)
Laminates for flow wrapping	Italy	7,000	120,000
Prefabricated laminated bags	Ghana	5,000	120,000
PE bags as primary packaging	Ghana	15,000	150,000
Cardboard boxes	Ghana/South Africa	300,000	450,000

2.3. Awareness of EU packaging regulations in Ghana – general appraisal

There is a notable policy momentum in Ghana, including the country's 2025 Environmental Protection Act, single-use plastics measures, advisory work on extended producer responsibility (EPR), and traceability pilots in key export sectors that mirror key aspects of the new EU requirements. Under the updated 2025 Environmental Protection Act, Ghana's Environmental Protection Authority (EPA) and other authorities are actively developing waste-management and EPR policies, signalling the country's preparation to phase out certain single-use plastics. These steps align with the circularity goals of the EU's PPWR.

However, there is a widespread lack of awareness about the emerging PPWR and BPA Regulation of the EU, and a significantly low level of readiness among Ghanaian actors to meet their stringent requirements. Because the PPWR sets legally binding recyclability grades, minimum recycled-content rules, reuse targets, and stricter labelling and traceability obligations (which will be implemented on a timetable that tightens from 2030 onwards), Ghanaian exporters to the EU would face near-term challenges related to chemical testing, material design, performance standards, and documentation requirements.

Ghana lacks testing capacity, national standards implementation, and formal sorting and recycling systems. The infrastructural requirements, methodologies, and protocols for testing BPA and PFAS are still lacking within the Ghana Standards Authority (GSA).

In addition, weaknesses remain in the country's testing capacity, national standards implementation, and formal sorting and recycling systems, all of which are critical for the country to reliably demonstrate compliance with PPWR and BPA requirements. Within the GSA, for example, the infrastructural requirements, methodologies, and protocols for testing BPA and PFAS are still lacking. In addition, Ghana currently has limited capacity, and no clear upgrading strategy to perform specialised recyclability assessments and traceability audits that EU importers would expect at scale. Therefore, while policy signals in Ghana remain positive, the country lacks a fully articulated regulatory roadmap and compliance timelines to meet the emerging EU regulatory requirements under both the PPWR and the BPA Regulation.

3. Changes required to comply with EU packaging regulations

There are current efforts at the national level in Ghana to address several sustainability challenges arising from the packaging industry. Although these efforts address key components of the PPWR and the BPA Regulation, they are sub-optimal from the perspective of accessing the EU market, since they were not originally intended and specifically formulated to address these new EU rules. As such, in-country interventions on recyclability, reusability, and compostability of packaging materials are still underdeveloped and remain outside the national regulatory framework.

Traceability, labelling, and documentation are generally at a more advanced level, particularly in certain sectors such as cocoa. These systems need to be strengthened and extended to include other value chains to comply with the new EU regulations, especially in relation to the availability and accessibility of the documentation that underpins such traceability systems.

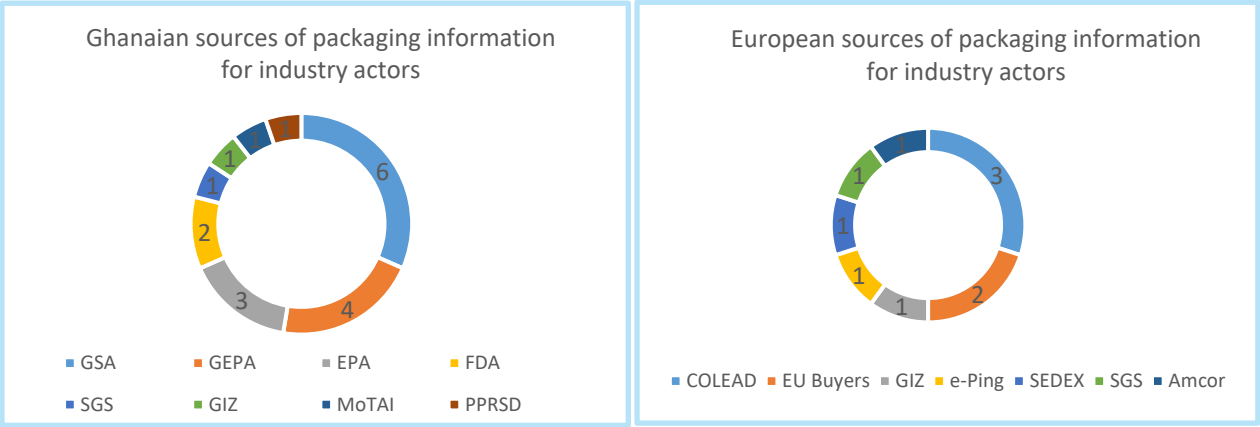
Similarly, while national laboratories exist and are staffed by qualified experts, their testing capabilities need to be upgraded, and testing protocols for emerging food contaminants need to be implemented and accredited. Likewise, the capacity for assessing recyclability must be extended. Finally, Ghana's efforts at developing an extended producer responsibility (EPR) policy needs to be finalised. The following section discusses these areas for improvements in more detail – all of which were confirmed and affirmed with key Ghanaian stakeholders at the validation workshop.

3.1. Increased awareness, and preparedness to meet EU requirements

Ghanaian industry actors receive regulatory information on packaging from national sources and from continental Europe. The Ghana Standards Authority (GSA) was identified as a primary domestic institutional source of information that fosters awareness among industry actors. Other sources of such packaging-related information identified by interviewees included the Ghana Export Promotion Authority (GEPA), the Environmental Protection Agency (EPA), and the Food and Drugs Authority (FDA). The GSA, for example, highlighted the role of the National Enquiry Point in disseminating information on rule changes that affect international trade. Similarly, GEPA has National Reference Centres, while the Ministry of Trade, Agribusiness and Industry (MoTAI) hosts EU desks to serve similar purposes.

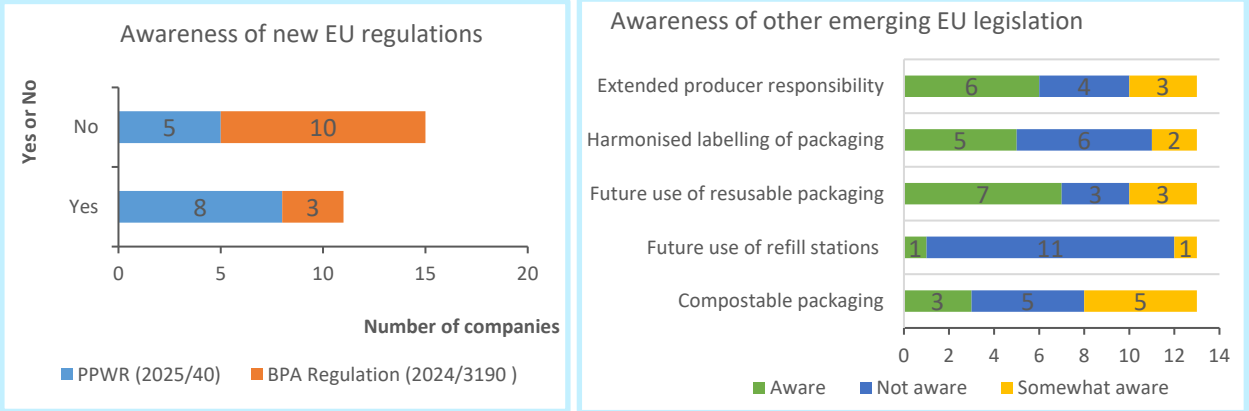
EU information sources include EU buyers, and international development organisations such as COLEAD and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ, German Society for International Cooperation). Ghanaian industry associations such as SPEG and the Federation of Associations of Ghanaian Exporters (FAGE) particularly make use of information received from COLEAD, although other industry actors obtain information from other sources (see Figure 3).

Figure 3: Sources of information about EU packaging regulations available to Ghanaian industry operators



Notwithstanding these information flows, among these industry actors there is generally a lack of awareness of the PPWR and of the BPA Regulation, their requirements, and associated conformity assessments for affected packaging materials. Limited awareness of the BPA Regulation is especially widespread in Ghana, pointing to the urgent need for sensitisation and capacity development for the sectors concerned. A similar lack of awareness was found relative to other EU regulations on the horizon, particularly about the use of refill stations, and harmonised labelling regulations within the EU, although their primary impact is on EU importers (Figure 4).

Figure 4: Awareness of new and emerging EU regulations among Ghanaian companies



3.2. Improved recyclability, reusability, and compostability of packaging materials

Plastic recycling in Ghana is largely carried out by informal SMEs and relies heavily on informal waste collectors. High electricity costs and the poor, ungraded quality of collected plastic waste make recycling challenging and affect the quality of recycled materials.

The recyclability and reusability of packaging materials in Ghana are still at an early stage, with policy frameworks that are yet to be enforced nationally. For example, although the national standard GS 1388 (developed by GSA) on recycling of plastic waste exists, the standard is underutilised. Some interviewees recommended incentives for manufacturers to reclaim packaging waste. The industry is dominated by plastics (notably PET, PP, and PE), limited but emerging paper-based packaging, and metal cans. While some beverage and food companies have started to promote returnable bottles and reuse schemes, overall recycling infrastructure remains weak and fragmented. According to interviewees from the manufacturing and agri-food export companies, the recycling sector is dominated by informal SMEs and is still heavily dependent on informal waste collectors. In his contribution during the validation workshop, the President of the Ghana Plastic Manufacturers Association, Mr Ebbo Botwe, revealed that these SMEs face high electricity costs (about 19% of total cost) for recycling plastic waste, such that recycling would be challenging in Ghana. Meanwhile, plastic waste supplied by informal collectors is said to be of poor quality, often ungraded, and therefore influencing the quality of materials produced with recycled content. Although PET recycling is on the rise, with thousands of metric tons processed annually, there is limited investment in formal recycling and material recovery facilities. However, the Mohinani Group, a major packaging manufacturer in the country, has recently commenced pilot projects on PET recycling and carton recovery, setting the stage for improving recyclability of packaging in Ghana.

Compostable packaging options (such as bio-based materials) are very limited in mainstream markets in Ghana, largely due to cost constraints and low consumer awareness. Some actors interviewed mentioned that the priority is more towards recyclability than compostability because the latter presents major authenticity and verifiability challenges. However, paperboard and corrugated cartons produced locally offer relatively higher recyclability, and are in growing demand from food, beverage, and export-oriented sectors. For example, Royal Crown Packaging, a carton manufacturer in Tema, was quick to indicate the company's readiness to lead a national shift towards paper-based packaging in the event that plastic packaging materials are phased out.

Some actors interviewed mentioned that the priority is towards recyclability rather than compostability because the latter presents major authenticity and verifiability challenges.

Given the short timelines of the EU regulations, it is crucial to ensure that agri-food operators can continue exporting to the EU when the PPWR and the BPA Regulation come into force. In conclusion, compliance with the EU requirements might pose a challenge to both public and private sectors in Ghana. The existing infrastructure for sorting, grading, testing, and certification of recycled materials needs to be upgraded for food packaging to be compliant with EU requirements, and for packaging manufacturers and agri-food exporters to use more recyclable, reusable, and compostable materials.

3.3. Stronger traceability, labelling, and documentation in the industry

Compliance with EU and other international standards has led to the adoption of traceability technologies (such as barcoding, batch numbers, and QR codes) among some agri-food exporting companies in Ghana. For example, the Ghana Cocoa Traceability System (GCTS) has been rolled out nationally, enabling tracking from farm to port with geolocation and digital mapping of farms in preparation for the EU Deforestation Regulation (EUDR).

Most companies consider traceability is beneficial for business and risk management. However, supporting documentation is largely not digitised, making access difficult for third parties. Although some firms are piloting digital traceability systems, their adoption remains limited.

In addition, every interviewee indicated they had in place one-step-back, one-step-forward traceability systems to track their supplies and deliveries to customers. Packaging Matrixx for example, has a system that embosses special in-house marks (perceptible only to trained eyes) on all their packaging products for ease of identification in case of consumer complaints and in situations where corrective or remedial actions are required. All of the companies interviewed also indicated their in-house traceability systems were tailored to their own internal purposes. Most of the companies indicated that traceability is good for business, pointing to the fact that without such a system, companies could take on liabilities that they should not. It would appear, however, that the documentation underpinning the systems is generally not digitalised, complicating access by third parties. One company, for example, indicated that although a system was in place, it would be difficult to retrieve information when required. While digital traceability systems are being piloted by some companies, adoption is still very limited in the country.

With respect to labelling and documentation, the Ghana Standards Authority (GSA) provides guidelines for sector actors, including requirements on nutritional information, expiry dates, and country of origin, although enforcement is inconsistent. Consequently, all packaging manufacturing companies provide adequate labelling information to aid in their own tracing and tracking exercises. However, among agri-food exporters, the information supplied to their customers related to certificates of analysis of the packaged food products, not to the packaging materials.

3.4. Improved testing of chemical components in packaging materials

Only a few Ghanaian companies expressed knowledge of BPA and currently conduct tests to ensure no migration of the chemical is found in their agri-food exports.

Many packaging manufacturers and agri-food exporters in Ghana currently conduct several tests on their packaging materials, although these are largely physical and mechanical tests (see Table 5 below). Chemical tests are conducted in some cases related to the toxicity of inks, acidity, and sulfide content of food contact packaging materials. In-house tests augment additional test information provided by raw material suppliers or packaging manufacturers; these tests are conducted more by manufacturers than by agri-food exporters. Agri-food exporters required to conduct tests that are not conducted in Ghana rely on external laboratories such as Eurofins (Luxembourg), Hemshell (India), TUV Rheinland (Germany), and Tentamus (Germany) for such testing services. For example, HPW AG conducts its annual migration tests with Tentamus. This company is among the few in the country that expressed knowledge of BPA, and also conducts tests to ensure no migration of the chemical is found in their agri-food exports. A few companies, including Cocoa Processing Company and Nkulenu Industries, carry out heavy metals testing for food-contact packaging materials.

Table 5: Types of tests conducted on packaging materials by Ghanaian industry actors

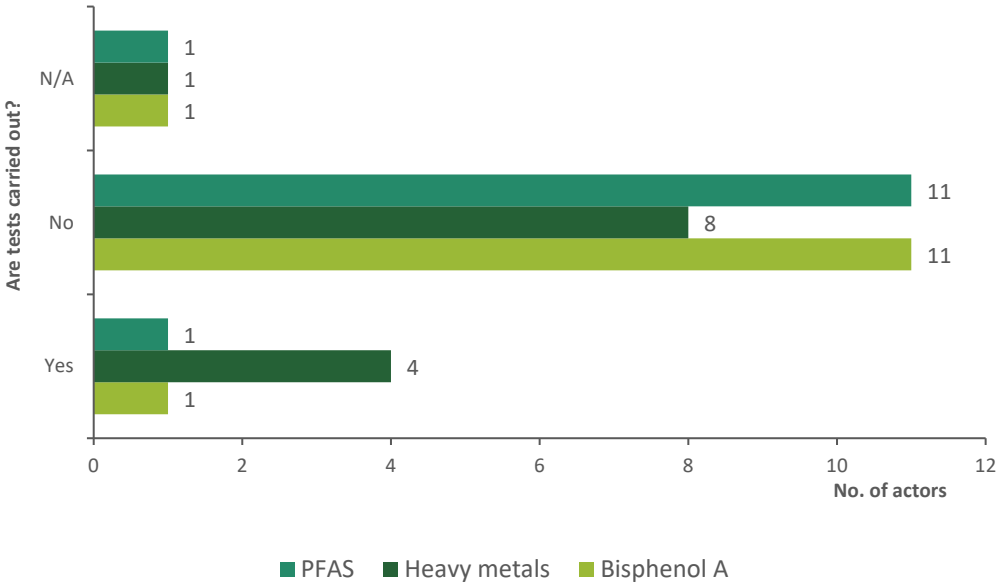
Source of information	Physical tests	Mechanical tests	Chemical tests	Certification/reporting
Own testing	Box quality	Tensile, grammage	Heavy metals, BPA*	–
Supplier information	Thickness, sensory (touch), surface tension, haze	Tensile strength	Toxicology (inks), acidity test, sulfide content, melt flow index	Heat treatment certificate
Both (own + supplier)	Moisture, colour consistency (spectro), friction test	Tensile, izod impact test, hardness	Degradation, UV test, melt flow rate	Certificates of analysis, material safety data sheet (MSDS) conformance

Although concerns are rising in globally about the chemical safety of packaging materials, particularly the use of BPA and other endocrine-disrupting substances in plastics, among major packaging stakeholders in Ghana there is limited awareness of their *toxicity* (aside from an awareness of the EU Regulation). The country's policy institutions, plastic manufacturers, and agri-food exporters had extremely limited knowledge of BPA's toxicity. Only a few food exporting companies could clearly indicate their awareness of BPA toxicity and have subsequently taken steps to ensure their sourcing strategies include a prohibition of BPA-containing packaging materials. Nkulenu Industries, for example, is now sourcing BPA-free packaging materials (led directly by the quality assurance manager), although at the time of the interview this practice was yet to attain official endorsement as a company-wide policy.

At the validation workshop, the GSA indicated it was verifying a test method for BPA based on a protocol for lead testing, requesting EU and other sources of support to strengthen its laboratory capacity. Already, this is likely a positive outcome of the awareness generated within GSA during the interview process as part of the impact study.

Consequently, the testing capacity for BPA and other emerging contaminants is limited nationally (Figure 5 below). Interactions with senior scientific officers and laboratory experts of the GSA revealed that it is now exploring modalities for incorporating BPA testing into its analytical protocols. This is consistent with the general lack of awareness of the new BPA Regulation, of BPA toxicity, and the fact that it is yet to assume national food safety priority status (at the validation workshop after the interview, the GSA indicated it was verifying a test method for BPA based on a lead testing framework, and requesting EU and other sources of support to strengthen its laboratory capacity). Currently, imported packaging materials are not always subject to rigorous chemical safety checks, creating the potential for health risks associated with BPA and other contaminants. While certain food and beverage producers supplying international markets may be cautious, and may source BPA-free materials to meet EU standards, BPA-containing plastics (e.g., polycarbonate bottles, linings of some cans) remain widely used on domestic markets due to their affordability and to a lack of consumer awareness. There is therefore an urgent need (beside awareness creation) to develop in-country testing capabilities, standards, and testing protocols for this and other emerging contaminants, and build national capacity for their testing, monitoring, and control to safeguard local populations and consumers on the international market.

Figure 5: Types of EU compliance test carried out by Ghanaian companies



3.5. Align national policies with EU requirements on voluntary EPR

The PPWR does not require non-EU countries to establish national extended producer responsibility (EPR) schemes. EPR schemes make producers financially and/or organisationally responsible for the management of the waste stage of a product's life cycle, for example by organising or paying for the collection and disposal of waste. Introducing and implementing such a scheme in Ghana could be a policy option to support voluntary compliance in alignment with EU requirements.

EPR is an emerging policy area in Ghana's packaging industry. There is currently high-level political commitment which, in June 2025, saw Ghana's Minister of Environment highlighting EPR as central to creating a circular plastic economy in the country. In addition, the Ministry of Environment, Science, Technology and Innovation (MESTI), through the Environmental Protection Agency (EPA), has introduced frameworks that require producers and importers of plastic packaging to take responsibility for collection and recycling.

The Plastic Waste Management Fund and recent EPR regulations for plastics signal a shift towards holding companies accountable for post-consumer waste management. A World Bank-supported advisory mission, through the Landbell Group, developed a comprehensive EPR strategy for plastic packaging, including the design of e-registries and legislative frameworks to reduce plastic waste mismanagement, affecting an estimated 86% of plastic waste in the country.[4] Other civil society groups and industry associations are increasingly lobbying for circular economy practices in Ghana, especially due to the plastics menace. If fully completed and enforced, EPR could significantly reshape Ghana's packaging landscape, pushing firms towards the use of more sustainable materials and take-back schemes. However, compliance remains low. Many of the companies interviewed, although aware of EPR, have no current plans to implement EPR-related schemes. Only a handful of large multinationals are making visible commitments. For example, during the interview Qualiplast Limited confirmed its collaboration with Coca Cola in an EPR scheme that rewards the beverage multinational with a crate for every five worn-out crates returned to the packaging manufacturer. Nationally, enforcement challenges, weak infrastructure for waste segregation, and limited incentives for companies hinder widespread adoption. Stakeholders at the validation workshop indicated that an in-

[4] Landbell Group (2023) Fighting the plastic menace: End-to-end strategy for EPR implementation is delivered in Ghana. Newsroom, 3 November.

country EPR would generally be helpful to Ghanaian actors in terms of local capacity development and in complying with the broader PPWR requirements. Table 6 summarises the key changes that remain for Ghana to achieve compliance with the new EU regulations.

Table 6: Gaps in current level of compliance to high-level EU regulatory requirements

EU regulation	High-level requirement	What does Ghana already have?	Main gaps
PPWR	Mandatory recyclability performance grades and design-for-recycling criteria; phased application (general application 12 Aug 2026; delegated acts on detailed grading follow)	Policy direction in place: national plastics policy, EPR advisory work (World Bank/Landbell), private sector pilots on reusable packaging; some recyclers and converters active	Technical capacity to run standardised recyclability assessments and produce independent performance grades; lack of accredited recyclability labs/agencies, insufficient national guidance mapping EU delegated acts to local standards; weak industrial sorting infrastructure to prove real-world recyclability
	Minimum recycled content rules; proof of recycled content and chain-of-custody (audit evidence)	Informal and small formal recycling sector (PET recycling growing); EPR design work envisages improved collection financing	Low volumes of high-quality, food-grade recyclate; no national auditing scheme for recycled content; collection/sorting systems not yet scaled to deliver predictable recyclate streams
	Strengthened labelling, documentation, and enforcement; compliance evidence for imports	GSA, FDA, and EPA have labelling and product/regulatory frameworks; KNUST and other labs improving accreditation	Enforcement and inspection capacity uneven; documentation standards not routinely aligned to EU evidentiary expectations; exporters may still need EU-certified third-party testing to satisfy buyers
BPA Regulation	EU chemical restrictions (BPA and other bisphenols); entered into force early 2025, phased dates for certain uses (e.g., food contact prohibitions effective 20 July2026; for some articles transition rules apply)	Health risks acknowledged within GSA and among some food exporters; a few exporters sourcing BPA-free food contact materials to meet buyer specifications	Awareness of BPA hazards low; national regulation not mapped to EU Regulation 2024/3190; limited domestic capacity for routine migration/BPA testing; GSA yet to elaborate BPA testing and analytical protocols; many SMEs source inexpensive materials from markets where BPA controls differ, risking non-compliant exports to the EU

4. Challenges to compliance

There is widespread concern and apprehension about the challenges the new EU regulations could pose for businesses in Ghana across the policy and regulatory landscape, packaging manufacturing, and agri-food exports to the EU. The main barriers to compliance range from policy (mis)-alignment, technical and financial challenges, and sourcing alternative EU-compliant materials, along with customer expectations for existing packaging materials including their affordability and functionality. This section discusses existing and perceived challenges to compliance as mentioned by interviewees.

4.1. Regulatory alignment

Stakeholders agreed that a national EPR policy could build local capacity and help Ghana meet future PPWR requirements.

Although there are some existing standards (e.g., within the GSA) that are matched to EU requirements, technology gaps between the EU and Ghana mean that not all such requirements have yet been fully localised. For example, the country's regulations on recyclability and reusability of packaging are still to be developed. Standardised recyclability assessments are also limited, and while some migration tests are carried out, specific migration tests for contaminants such as BPA and PFAS are yet to be developed by the GSA. Ghana's EPR policy is not yet fully outlined and articulated, even at the national level. Consequently, many of the agri-food exporters and packaging manufacturers interviewed lack clear checklists and local compliance pathways to meeting the requirements of the new EU packaging regulations. Although a national EPR is not a direct requirement for Ghana under the PPWR, stakeholders at the validation workshop accepted the notion that with a national EPR policy the country could build internal local capacity, and position itself to meet other requirements of the PPWR. Additionally, because these EU regulations are not a statutory requirement in Ghana, key stakeholders have questions about what tests are mandatory, their acceptable thresholds, and associated documentation requirements. Consequently, during the interviews, the GSA called for the development of standards and testing protocols, and the development of capacity in Ghana to be able to meet the new EU requirements.

Many stakeholders in Ghana are concerned that the high cost and limited availability of specialised testing for migration thresholds and recyclability grading could disproportionately impact SMEs.

Many stakeholders in Ghana are also anxious about the potential costs and availability of specialised testing methods for validating migration thresholds and recyclability performance grading, fearing these challenges may particularly affect the businesses of SMEs. While some larger manufacturers and exporters generally think they would be able to adapt to the new requirements, uncertainties about affordable BPA migration testing and certifications, and recyclability grading acceptable to EU importers, could present a major challenge to compliance.

4.2. Technical and financial barriers

There are existing technical knowledge gaps, generally, around the emerging EU regulations. These include scientific methods for migration testing, recyclability design, and other auditing and certification requirements. Additionally, awareness of the EU deadlines and nuanced product-specific obligations is incomplete within Ghana's policy and regulatory institutions, and among packaging manufacturers and agri-food exporters. Many interviewees requested information on the detailed provisions of the regulations and the time periods when they would become mandatory. This awareness gap could pose a significant challenge if not addressed urgently before the new EU regulations come into force. Implementing fast-tracked training

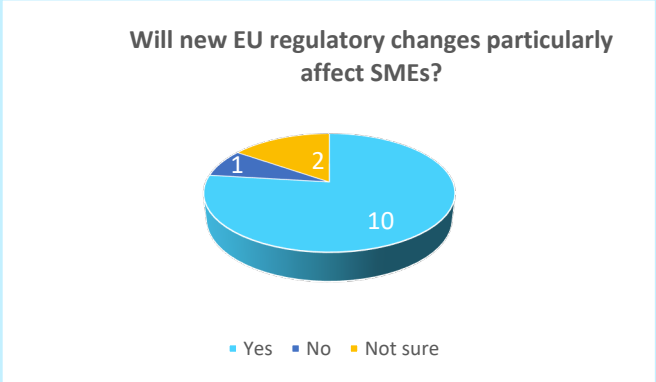
programmes, developing and disseminating standard operating procedures, and establishing a helpline for exporters administered by MoTAI, GEPA, or industry associations could forestall a possible chaotic transition.

Packaging manufacturers and agri-food exporters are concerned about increased compliance costs. SMEs, in particular, face challenges including limited finance, technology, competition, and rigid supply chains.

Both packaging manufacturers and agri-food exporters mentioned with concern the added compliance costs that would be imposed on their businesses. The cost implications of retooling production lines, (re)designing new packaging moulds, establishing supply chain networks for alternative EU-compliant packaging materials, training personnel, and meeting new testing requirements are anticipated by these companies to be huge. SMEs, especially, face significant hurdles in access to finance, technology access, competition from larger companies, and supply chain rigidities. The design and redesign of new packaging formats, possible material substitution, and in some cases the installation of new manufacturing lines could also present significant barriers to compliance, particularly for SMEs. One company estimated the cost of replacing its laden films (alone) – which are currently used in pre-packaged exports to the EU – would at the minimum be over a million pounds sterling.

Figure 6 presents a word cloud of the key challenges that were mentioned by the companies interviewed, highlighting the centrality of costs, among other burdens such as sourcing alternative materials, capacity development, testing requirements, customer expectations, and impact on SMEs.

Figure 6: A word cloud of anticipated challenges and their likelihood of affecting SMEs disproportionately



4.3. Sourcing alternative EU-compliant materials amidst market expectations

Currently in Ghana, manufacturers and agri-food exporters lack the capital to invest in local packaging redesign, BPA-free materials, or new testing protocols, making packaging imports another potential source of challenges.

While there is a general lack of awareness in Ghana of the new BPA Regulation and the need for BPA-free packaging alternatives, a few large-scale manufacturers have begun experimenting with PET, glass, biodegradable films, and multilayer paper-based materials that are already BPA-free. However, because the majority of local packaging manufacturers still depend on imported resins and laminates from Asia and the Middle East, many of these materials may not yet meet the EU's BPA, traceability, and recyclability standards. These packaging materials may expose Ghanaian actors to compliance challenges if their Asian imports are not EU-compliant. In Ghana currently, both manufacturers and agri-food exporters lack the required capital to invest in local packaging redesign, BPA-free materials, or new testing protocols. Therefore importation is also a key area where challenges could emerge.

Current local capacity for compostable or advanced recyclable polymers is minimal. As well, the national supply of recyclable materials is inconsistent and variable in terms of sorting and grading, with no national certification systems available to provide services in quality assurance. The near absence of local testing capacity for migration studies and BPA detection is expected to slow down the feedback loop between design innovation and certification. Therefore, even where packaging is designed for recycling, manufacturers could find it challenging to credibly claim or document recycled content – a situation made even more challenging by variabilities in the national recyclate supply. Again, even where Ghanaian packaging is designed to a higher standard, without functioning collection and sorting systems that produce predictable, food-grade recyclate, many PPWR requirements (recyclate content proofs, recyclability at scale) will be hard to demonstrate to EU buyers and auditors. While EU buyers are expected to demand verifiable audits or certified recycled inputs, this is currently not available locally. There is therefore an urgent need to retool and revamp existing testing capabilities to include BPA and PFAS detection, recycling testing, and their certification protocols.

> Without reliable collection and sorting systems in Ghana, demonstrating to EU buyers compliance with PPWR requirements such as recyclate content and large-scale recyclability will be difficult, as certified recycled inputs and verifiable audits are not currently available locally.

Where these systems are revamped, however, interviewees mentioned the need to implement these interventions along with a firm understanding of market expectations and demand. One packaging manufacturer, for example, questioned the purpose of shifting to new packaging materials when the market has not demanded this shift.

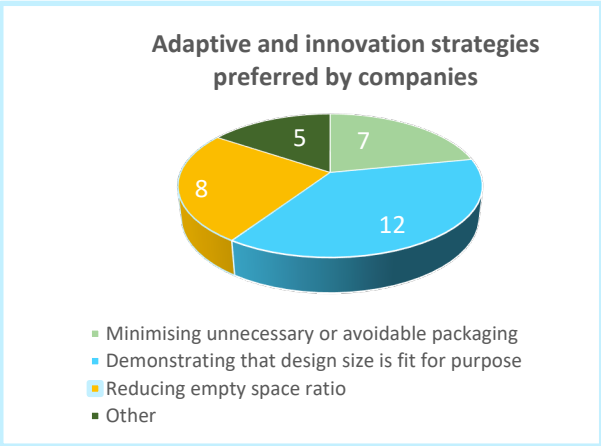
4.4. Adaptability and innovation capabilities

Ghana's packaging manufacturers and exporters to the EU market of packaged products such as cocoa, horticulture, and processed food have in the past adjusted to the EU's strict labelling, traceability, and food safety standards. This embedded experience provides a good indicative baseline of their ability to pivot into a new regime of tighter requirements, as affirmed by actors like SPEG and FAGE. There are also institutional capabilities within the GSA, FDA, and EPA (among others) that have in the past anchored the country's alignment with previous EU standards in areas such as traceability and food safety.

> The GSA has recently completed elaborating its PET recycling standards based on information from EU sources.

Additionally, there are ongoing pilot projects in PET recycling (rPET) and carton recovery in the country by companies such as the Mohinani Group. The production and use of corrugated cartons and paperboards already offer recyclable substitutes for plastics in some applications. Innovation spillovers could also be harnessed from donor-supported programmes, for example, by the United Nations Industrial Development Organization (UNIDO), the World Bank, and the EU. The EU market and its customer base for Ghanaian food products also influence the sector's adaptive and innovation capacity through requests placed on exporters to adapt in line with changing EU regulations. Many agri-food companies indicated that the requests received have largely included the need for Ghanaian companies to use recyclable materials in packaging, or to minimise excessive packaging. The GSA also indicated that it has recently completed elaborating its rPET standards on the basis of such requests from EU customers. Only a few companies reported requests from their EU customers to eliminate BPA, further confirming why there has been a general lack of awareness of BPA in food contact materials in Ghana (Figure 7).

Figure 7: EU Customer requests for changes in packaging, and adaptive and innovation strategies of Ghanaian companies



Minimising and avoiding unnecessary packaging or reducing the empty space ratio were less preferred. The actors argued that empty spaces provide added functionalities including the protection and cushioning of packaged goods, temperature and moisture control, and may be challenging to reduce these

Consequently, in terms of their preference for specific innovation strategies, most interviewees indicated a 'fit-for-purpose packaging (re)design' as the most plausible strategy they would want to adopt when the PPWR eventually comes into force. Minimising and avoiding unnecessary packaging or reducing the empty space ratio were less preferred. Actors argued that empty spaces provide added functionalities including the protection and cushioning of packaged goods, and temperature and moisture control, and it may be challenging to reduce these spaces in some instances.

Again, according to the agri-food exporters, what could pass for 'extra' or 'excessive' packaging may be needed in practice to accommodate mandatory labelling information and other regulatory requirements. In some other cases, these 'extras' are for enhancing the marketing and perceived value of certain products – especially those designed for special and festive occasions. Generally, however, it is envisaged that the current public and private institutional foundation would be able to support adaptation to the new PPWR and the BPA Regulation. At the same time, while interviewees indicated their readiness to use alternative EU-compliant materials, their heavy reliance on imported packaging inputs (films, inks, adhesives, and resin-based plastics) could limit the industry's control over design innovation and substitution.

While interviewees indicated readiness to use alternative EU-compliant materials, their heavy reliance on imported packaging inputs (films, inks, adhesives, resin-based plastics) could limit the industry's control over design innovation

5. Practical recommendations

In view of the gaps identified, and the urgent need to prepare the Ghanaian packaging sector ahead of the EU regulatory requirements, the following actions are recommended. The Government of Ghana alongside its development partners are envisaged to lead in operationalising these recommendations, while packaging manufacturers and agri-food exporters collaborate with their customers and suppliers in adopting best practices, and in sustainable and innovative packaging design.

5.1. Scale up national capabilities in testing and recyclability assessments

Expanding accredited testing and recyclability assessment infrastructure is critical to ensure that Ghanaian packaging manufacturers and agri-food exporters meet the stringent requirements of the PPWR and related chemical safety standards. Currently, Ghana has limited accredited laboratory facilities, with the GSA's ISO/IEC 17025 accreditation serving as a strong but insufficient starting point. By investing in additional labs or upgrading existing ones to ISO/IEC 17025 standards, Ghana can reduce its reliance on costly and time-consuming overseas testing. Principal actors within the GSA (who also attended the validation workshop) provided an estimated figure of €500,000 for laboratory equipment to develop national testing capabilities for BPA and other emerging contaminants. Other mid-range estimates put the figure at about €700,000 to €2.5 million (e.g., the estimated cost of a project in Türkiye for the establishment of an accredited laboratory was €1,130,000).[5] A mix of public, private, and donor investments is needed to build this capacity at scale, particularly for migration and chemical safety testing, which are essential to ensure that packaging materials are both safe and compliant.

Alongside laboratory expansion, establishing domestic recyclability-assessment capabilities is critical. Since recyclability assessments are a core part of EU compliance, Ghanaian exporters need either in-country accredited services or a streamlined, affordable pathway to EU-recognised laboratories. Strategic partnerships with European certification bodies could provide an interim solution while Ghana builds its own long-term capacity. In the process, local expertise and jobs in testing, compliance, and materials science would expand, supporting the broader goal of transitioning towards a sustainable and competitive packaging industry.

5.2. Fast-track EPR implementation and collection infrastructure pilot projects

Fast-tracking the implementation of current extended producer responsibility (EPR) systems would smooth Ghana's transition into a modern circular economy, bringing producers directly into waste management and recycling efforts. By operationalising existing advisory work from partners such as Landbell and the World Bank, Ghana can move quickly from policy frameworks to practical pilot projects. Early pilots in high-volume urban centres like Accra could demonstrate how EPR revenues can be channelled into building robust collection and sorting infrastructure, setting the stage for a nationwide system.

A critical use of EPR revenues should be subsidising upgrades in sorting and recycling facilities, and financing SMEs to transition to more sustainable packaging. This would not only address current gaps in waste collection and recycling, but would also make compliance more achievable for smaller players in the packaging and agri-food sectors. A phased rollout, starting with pilot projects, would allow for the testing of different models of collection, sorting, and recycling while providing lessons that can be scaled up nationally. Over time, a functioning EPR system could reduce environmental waste burdens and create new value chains in recycling and secondary materials.

[5] EU IPA (nd) Project Fiche: Establishment of an Accredited Calibration Laboratory. Instrument for Pre-accession Assistance (IPA) Decentralised National Programmes.

5.3. Support SME compliance

SMEs face unique challenges in meeting EU packaging regulations due to their limited financial, technical, and human resource capacities. Providing them with standardised templates for packaging technical dossiers would simplify compliance and reduce the burden of navigating complex regulatory requirements. In addition, offering access to a shared digital service or aggregator platform would give SMEs a cost-effective way to meet traceability and disclosure obligations without building individual systems from scratch. This collaborative approach would level the playing field and enable smaller firms to compete in export markets.

To complement these support services, a dedicated financing mechanism for SMEs is essential. Grants and low-interest loans could be accessed to cover redesign costs, testing expenses, and investments in compliant materials. Such financial support would not only reduce compliance barriers, but would also encourage SMEs to innovate in packaging design and materials sourcing. With proper backing, SMEs could play a significant role in driving Ghana's packaging industry towards greater sustainability and EU market alignment, rather than being left behind due to rising regulatory costs.

5.4. Leverage sectoral traceability blueprint

Ghana has already achieved significant progress in traceability through initiatives like the Ghana Cocoa Traceability System (GCTS), which ensures compliance with international standards and market requirements. These successes provide a valuable blueprint for other sectors, including the packaging sector, where traceability is becoming a non-negotiable requirement under the new EU rules. By learning from and adapting the IT systems, data management practices, and monitoring frameworks used for the cocoa traceability system, the country can build robust systems for packaging and related value chains, especially those most exposed to EU export markets.

Replicating these traceability models would help manufacturers and exporters demonstrate compliance with sustainability and safety standards while increasing their competitiveness. Beyond compliance, such systems can generate additional benefits, including improved supply chain efficiency, stronger consumer trust, and access to premium markets. Moreover, by leveraging existing institutional knowledge and IT investments, Ghana can reduce costs and accelerate implementation timelines. The key will be fostering collaboration across government, industry associations, and technology providers to ensure that traceability solutions are interoperable and widely adopted across multiple sectors.

In addition to the above, the following recommendations are specifically for the consideration of packaging manufacturers and agri-food exporters to the EU.

5.5. Invest in design innovation, recyclability, and global benchmarking

Packaging manufacturers targeting the EU market must prioritise innovation in packaging design, with a strong focus on recyclability and sustainability. This means reducing unnecessary empty space (where practical), adopting lightweight materials, phasing out BPA materials, and shifting towards mono-material packaging that is easier to recycle. Companies should also explore biodegradable or compostable options where feasible, ensuring that packaging not only protects products but also complies with circular economy principles. Investing in design innovation can reduce long-term costs, enhance brand reputation, and open up access to markets where eco-friendly packaging is becoming a key differentiator.

Additionally, manufacturers must actively learn from global best practices in packaging compliance to stay ahead of evolving regulations. By benchmarking against leading EU suppliers and collaborating with international certification bodies, packaging firms can adopt proven strategies for material sourcing, design optimisation, and regulatory documentation. Participation in global knowledge-sharing networks, trade fairs, and industry alliances can expose local companies to innovative technologies and sustainable practices that

may already be in use elsewhere. Embracing these lessons will enable firms to avoid costly trial-and-error approaches and accelerate their journey towards compliance.

5.6. Partner with packaging manufacturers, and seek advice and financial support

Agri-food exporters can achieve compliance more effectively by forging strong partnerships with packaging manufacturers. Working collaboratively would ensure that packaging solutions are tailored to the specific needs of products while meeting EU standards for safety, recyclability, and traceability. For example, SPEG had partnered with its packaging materials producers to redesign a fit-for-purpose packaging material which some of its EU customers requested for de-crowned pineapples. Such joint innovation initiatives can reduce costs when exporters share market intelligence, and manufacturers contribute technical expertise in design and material selection. These partnerships would also create opportunities for co-investment in compliance testing, shared infrastructure, and digital traceability platforms, reducing the burden on individual companies.

However, the transition to PPWR and BPA-compliant packaging would require significant investment in redesign, testing, certification, and supply chain adjustments. To ease this burden, exporters and manufacturers should actively pursue financial support from government schemes and development partners. Access to grants, concessional loans, and subsidies can make compliance more affordable, particularly for SMEs. At the same time, advisory support from technical experts and trade facilitation agencies, including COLEAD, can help businesses navigate these complex EU regulations, prepare technical dossiers, and strengthen their market readiness. Combining financial support with expert guidance will allow companies to transition more smoothly and competitively.

Annex: Methodology and approach

This study followed a structured, three-part methodology combining baseline desk research, stakeholder engagement, and compliance gap analysis to assess Ghana's state of the art, and what changes would be required for the country to comply with the new EU PPWR and BPA Regulation. This approach provided a contextualised understanding of the regulatory landscape and key stakeholders in Ghana, the changes that are required to achieve compliance, and the existing and potential challenges that could impede compliance. The insights generated were shared with stakeholders at a validation workshop which then informed and affirmed the development of actionable recommendations.

Baseline assessment

The study began with a desktop review of packaging use, trade flows, and the regulatory environment that shapes Ghana's agri-food exports. This review was complemented by communications with relevant state institutions and helped establish a foundational understanding of the sector's compliance readiness. Key actors were mapped across the packaging and export value chain, including local manufacturers, agri-food exporters, and regulatory agencies. A core component of this phase involved assessing stakeholder awareness of the PPWR and the BPA Regulation, as well as capacity to innovate and/or adapt to these requirements.

A total of 17 semi-structured interviews were conducted with identified stakeholders (representing policy and regulatory institutions, manufacturers of packaging materials, and exporters of packaged food products to EU markets). This enabled the documentation of institutional and operational challenges, and provided a comprehensive understanding of existing practices, perceived barriers, and readiness levels. These actors were selected to reflect the policy–practice spectrum (regulation, manufacturing, usage), value chain diversity (cocoa, cashew, banana, dried, fresh, and processed fruits and vegetables, snacks, and tubers), packaging types (plastics and cartons), gender (men-, women-, and youth-owned businesses), and business sizes (top-, mid- and lower-tier manufacturing and agri-food exporting companies).

Compliance gap analysis

Building on the baseline assessment, a detailed compliance gap analysis was conducted to compare current packaging and waste management practices with key requirements of the PPWR and the BPA Regulation. The analysis examined aspects such as recyclability, reusability, compostability, traceability, and chemical safety – particularly regarding the use of BPA. It also evaluated adherence to labelling, documentation, and extended producer responsibility obligations.

Special attention was given to the constraints faced by SMEs, informal sector actors, and value chains involving women and youth. Areas requiring specific changes were then outlined. The analysis also identified key barriers, including regulatory misalignment between Ghana's and the new EU regulations, technical and financial constraints, and challenges related to sourcing compliant packaging materials. On the bases of these challenges, practical recommendations were made for the consideration of policymakers and development partners.

Stakeholder validation workshop and practical recommendations

Based on the findings from the gap analysis, a set of practical, stakeholder-informed recommendations were developed to support packaging manufacturers, agri-food exporters, and regulatory institutions in navigating the transition to full compliance with the new EU regulations. Recommendations were designed to reflect the needs and capacities of stakeholders, focusing on scalable, context-appropriate interventions (the list of recommendations is outlined in section 5 of this report).

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