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West Africa Plastic Manufacturing and Distribution in the Sanitation and Hygiene Supply Chain:

Landscape Executive Summary

Research by
Archipel&Co.

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LANDSCAPE BACKGROUND

USAID has a target to reach 22 million people with affordable, reliable, and climate resilient sanitation services by 2027. To meet this target, USAID has partnered with LIXIL to form the Partnership for Better Living (PBL): https://www.globalwaters.org/content/partnership-better-living. Launched in 2021, PBL is a five-year (2021-2026) cooperative agreement between USAID and LIXIL, implemented through LIXIL's award-winning social brand, SATO: https://sato.lixil.com/

Durable, water-saving, easy to install, and simple to use. These toilet and hygiene products are designed for off-grid applications and can be used in areas where water is scarce. Through April 2023, SATO had shipped over 7.5 million products to 45 countries. To keep costs low and shorten the supply chain, SATO aims to produce locally/regionally whenever possible. It currently has licensing agreements to manufacture products in eight countries globally, including four in Africa: Kenya, Nigeria, Tanzania, and Uganda.

With only one manufacturer in West Africa, where more than 200 million people experience limited or basic sanitation, and where tariffs across fragmented borders raise costs, SATO sought to learn more about the market through a landscape analysis. In the first half of 2023, SATO commissioned social innovation agency Archipel & Co: https://archipel-co.com/en/ to conduct a Manufacturing and Distribution Landscape to better understand where manufacturing can be expanded and which companies can accelerate production and sales of SATO products in five key West African markets: Côte d'Ivoire (Ivory Coast), Ghana, Liberia, Nigeria, and Senegal.

This landscape contributes to the global evidence base by identifying relevant manufacturing and distribution actors in the sanitation and hygiene supply chain for plastic products in West Africa. It is being shared with the broader sanitation sector in hopes of accelerating market entry for impact-focused innovators in the WASH space.

LANDSCAPE OBJECTIVES

- **Identify and map potential partners in the plastics manufacturing and distribution sector across key West African markets for sanitation and hygiene products.**
- **Identify the manufacturing and distribution partners with the highest potential to service West African - particularly Francophone - markets with SATO's suite of market-leading sanitation products and services.**
- **Help SATO make faster and better decisions about future manufacturing and distribution expansion in West Africa.**
- **Help other water and sanitation innovators make faster and better decisions about future manufacturing and distribution expansion in West Africa.**

METHODOLOGY & GEOGRAPHIC SCOPE

The landscape team engaged in a mix of site visits and interviews, plus a secondary desk inquiry focused on five West African countries of priority to both SATO and USAID:

Côte d'Ivoire (Ivory Coast), Ghana, Liberia, Nigeria, Senegal

The desk inquiry identified and scouted more than 80 plastic manufacturers and 60 distributors across the five focus countries. This study assessed (to the extent possible using available online resources) production capacity, retailer relationships and channels, price points, terms of partnership, any raw material tariff implications, exclusivity requests, and processes and timelines for introducing new product lines. From this effort, 29 short-listed manufacturers and distributors were identified as targets for the site visits and interviews.

Site visits took place in all five countries. In-person interviews were conducted with business leaders at each of the 29 entities to directly view/inquire about production capacity, retailer relationships and channels, price points, terms of partnership, raw material tariff implications, exclusivity requests, and processes and timelines for introducing new product lines.

KEY FINDINGS

- **Volume is key.** Low margin, affordable WASH products require volume sales for distributors and retailers to remain interested. Sanitation SKUs compete with other potentially higher-margin products (e.g. piping, beverages) for shelf space, making it essential for sanitation providers to show retailers the upside of carrying their products. Every conversation with manufacturers and distributors centered on the question: "What are the potential volumes?"

- **Trust is critical.** Relationships matter across all markets, and any new entrant will need to build trust over time by establishing and maintaining an in-person presence and proving service and payment reliability. Many market players are members of Middle Eastern or South Asian diasporas, which traditionally rely on relationship-building before engaging in formal business, further necessitating a concerted effort to build trust.

- **Small may be mighty.** What may appear to be a smaller operation on the surface may actually handle massive volumes and be a key market player. All potential partners are worth speaking with.

- **Products change hands multiple times.** The West African WASH market is unstructured and often not formally regulated, with products changing hands many times in the value chain. Take the time to learn these touchpoints to better understand costs, to plan accordingly, and to reduce delivery delays.

- **Key players may serve multiple roles.** Understanding that companies in the distribution supply chain may simultaneously act as distributors, sub-distributors, wholesalers, and/or retailers can help sanitation providers gain efficiencies and speed-to-market by leveraging these many roles.

- **Opportunities abound.** Most business leaders are very opportunistic and eager to engage, meaning sanitation providers that can demonstrate volume/sales potential will find willing partners in all five markets.

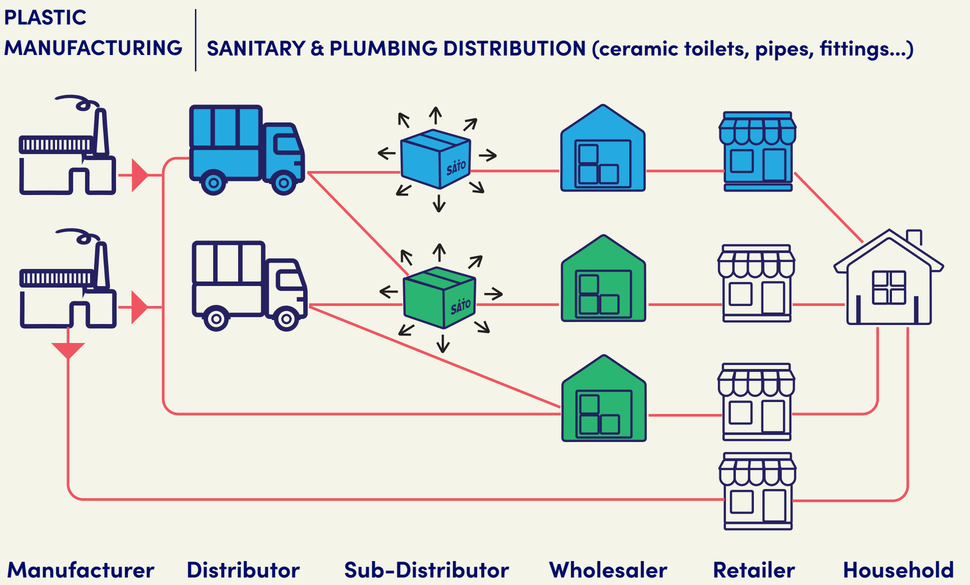
KEY MANUFACTURING INSIGHTS

1. Manufacturers' decisions are mainly driven by volume considerations.
2. Most manufacturers are not ready to make an investment into product molds.
3. Most manufacturers are capable of producing knock-offs (fake or cheaper versions), making it important for sanitation innovators to consider IP protection and to design safeguards before entering a market.
4. Major manufacturers may have strong distribution networks if they already make plumbing products (e.g. pipes).

KEY DISTRIBUTION INSIGHTS

1. Distributors are often found in market clusters except for in Liberia and Senegal, where no market clusters were found.
2. Distributors often outsource transport (except for in Liberia, where the cost of transportation is a major factor, so wholesale and retail serving non-urban markets have grown along major transport routes out of Monrovia).
3. The plumbing and sanitary markets in all five countries are "pull" markets; distributors have limited marketing experience to create or "push" demand.
4. Distributors' decisions are driven by volume and transport distance.
4. Major plumbing players are focused on high-end ceramic (not plastic) products.

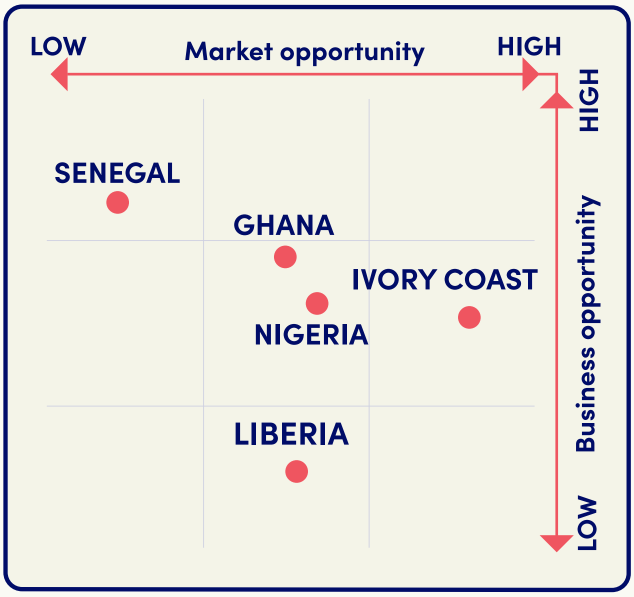
Primary Product Flow and Market Structure for Plastic Water and Sanitation Products in West Africa



WASH product and service delivery can be challenging and slow due to the complex & fragmented nature of supply chains in this region. For a product to get from the manufacturer to the end user, it may change hands five or more times.

OPPORTUNITY MATRIX

A key output of the landscape is this "Opportunity Matrix" which ranks the market and business opportunities of each of the five West African countries:



Senegal ranks highest for the Business Index with manufacturers and distributors ready to partner. The market opportunity ranks lowest: while the sanitation need is high in Senegal, it is mostly located in rural areas.

Ghana, Nigeria, and Ivory Coast are more attractive for both Market and Business Indexes and seem to be optimal markets. With a sanitation need that remains high in peri-urban areas and potential partners with good capacity.

Relative to the other countries, Liberia seems to be a market that could be difficult to enter commercially.

COUNTRY HIGHLIGHTS

CôTE d'IVOIRE (IVORY COAST)

2 Manufacturers and 1 Distributor Interviewed

Manufacturing Insights:	Distribution Insights:
Major players are members of the Lebanese diaspora and work in networks with distributors	Small retailers are often owned by Nigerians, who buy from Lebanese
Ceramic toilets are produced abroad and imported	Distributors operate across different levels of the supply chain
Manufacturers are capable of international exports	Wholesalers distribute to retailers in remote areas
Their distribution networks span across Ivory Coast	Many wholesalers are family-owned Lebanese companies
All manufacturers interviewed have recycling facilities and capabilities	

GHANA

2 Manufacturers and 5 Distributors Interviewed

Manufacturing Insights:	Distribution Insights:
Major players are members of the Lebanese or Indian diasporas and work in networks	Sanitation and plumbing products distributors typically don't work with manufacturers of plastics/other household products
Ceramic toilets are produced abroad and imported	The scope of a distributor spreads across different levels of a supply chain
Manufacturers are capable of international exports	Distribution partners are unlikely to promote or build demand for products
Their distribution networks span across Ghana	Retailers in remote areas get products from the nearest cities or cluster markets
Household products manufacturers are the most likely partners for plastic WASH products (versus plumbing product manufacturers)	Retailers can be found in several clusters (Kantamanto, Kaneshi, Mataheko)

LIBERIA

1 Manufacturer and 3 Distributors Interviewed

Manufacturing Insights:	Distribution Insights:
While capital is not an issue, Duraplast is unlikely to purchase molds	There is no dominant cluster for distribution
Duraplast and Sethi brothers make a strong distribution network	Wholesalers are spread along transport routes from Monrovia
Green Cities is not a recommended manufacturer	Most players span from distribution to retail
Duraplast may be open to political and social capital as a reason to engage	Working across sectors is typical for some distributors
	Major players are focused on high-end products

NIGERIA

1 Manufacturer and 10 Distributors Interviewed

Manufacturing Insights:	Distribution Insights:
Some manufacturers are increasing recycled content for production of certain products	Instability of the Naira (monetary unit) is impacting the cost of importation
Importation of raw materials and machines is being impacted by the currency volatility	Distributors may face delays in the arrival of goods and cost of clearing at the ports
More companies are entering the manufacture of plastic products	Construction is booming, leading to high demand for sanitation products
	Importers, distributors, and wholesalers sell products on credit based on experience

SENEGAL

2 Manufacturers and 2 Distributors Interviewed

Manufacturing Insights:	Distribution Insights:
Major players are members of the Lebanese diaspora or members of Senegalese communities	Sanitation and plumbing products distributors typically don't work with manufacturers of plastics/other household products
Manufacturers are capable of international exports	The scope of a distributor spreads across different levels of a supply chain
Their distribution networks span across Senegal	Distributors are unlikely to engage in promoting a product or building awareness
All manufacturers interviewed have recycling facilities and capabilities	Wholesalers distribute to retailers in remote areas
Household products manufacturers are the most likely partners for plastic WASH products (versus plumbing product manufacturers)	Distributors have the capacity to import products

Seeking additional information? Please send an email to pbl-sato@lixil.com for:

- Inquiries about SATO products
- Opportunities to collaborate with the Partnership for Better Living
- Access to the full research deck and/or the database of manufacturers and distributors identified in this study

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