

Sub-Saharan African Market for Polyurethane



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Frost & Sullivan

Sullivan House

4 Grosvenor Gardens

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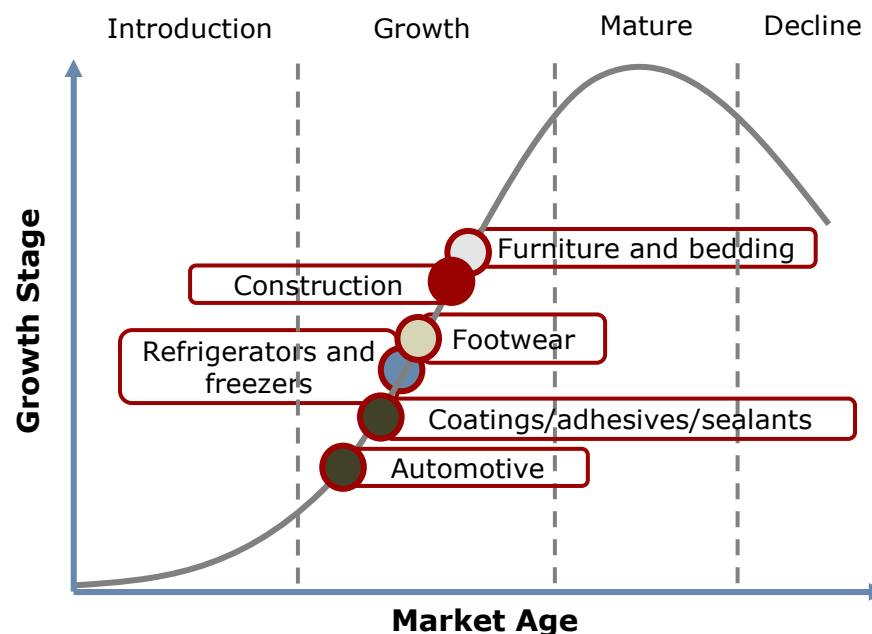
Executive Summary



Introduction

- The total Sub-Saharan African polyurethane (PU) market witnesses slow growth and is dominated mainly by multinationals. Though PU is used in many applications, lack of sufficient technology limits its usage in Sub-Saharan Africa when compared to that in other regions of the world. In addition, all raw materials for PU are imported.
- PU can have various levels of hardness. Therefore, two main types of PU bases are used, namely toluene diisocyanate (TDI) and methyl diisocyanate (MDI). This research service covers the following end-user applications:
 - Construction
 - Furniture and bedding
 - Refrigerators and freezers
 - Footwear
 - Automotive
 - Coatings/adhesives/sealants (CAS)

Total Polyurethane Market: Market Age by End-user Application (Sub-Saharan Africa), 2009



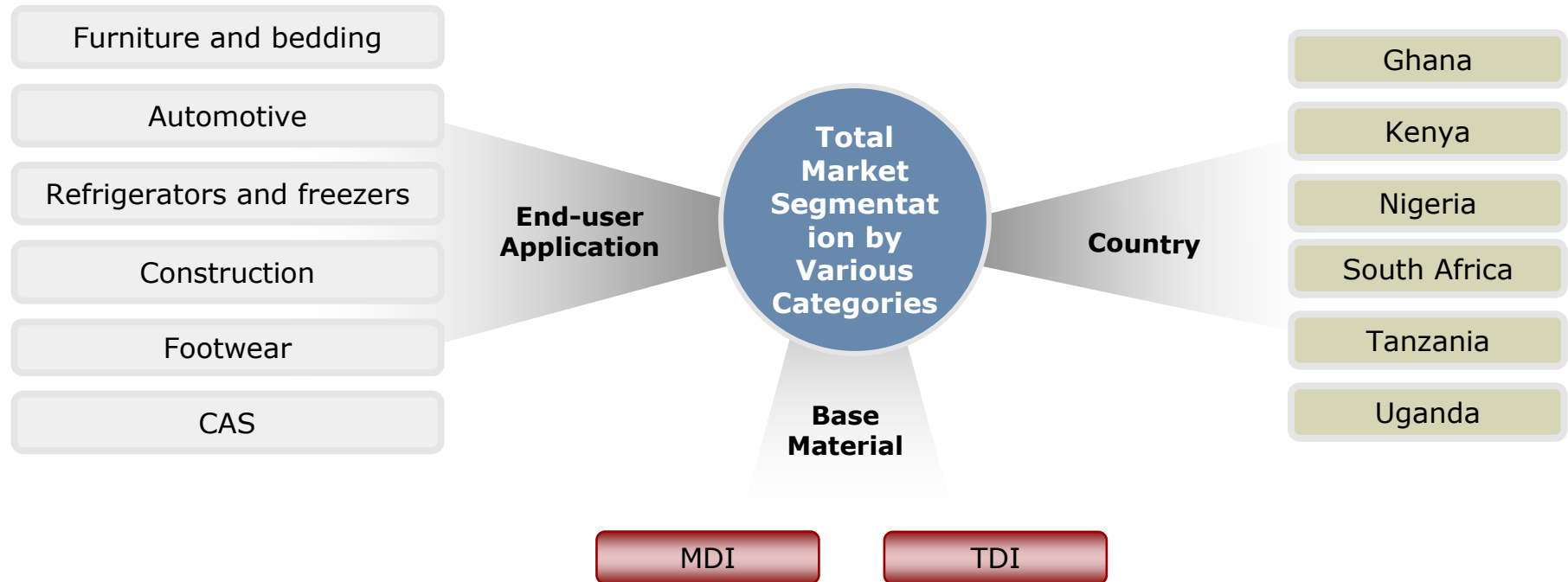
Source: Frost & Sullivan

- Purchasing power of Sub-Saharan Africans is limited, which reduces the demand for PU-containing goods. However, there will always be a need for bedding applications that drives the total market.

Research Overview

This research service focuses on the total Sub-Saharan African market for PU. Market segmentation by country, end-user application and base material is shown below.

Total Polyurethane Market: Market Segmentation by Various Categories (Sub-Saharan Africa), 2009



Note: CAS = Coatings/adhesives/sealants; TDI = Toluene diisocyanate; MDI = Methyl diisocyanate

Source: Frost & Sullivan

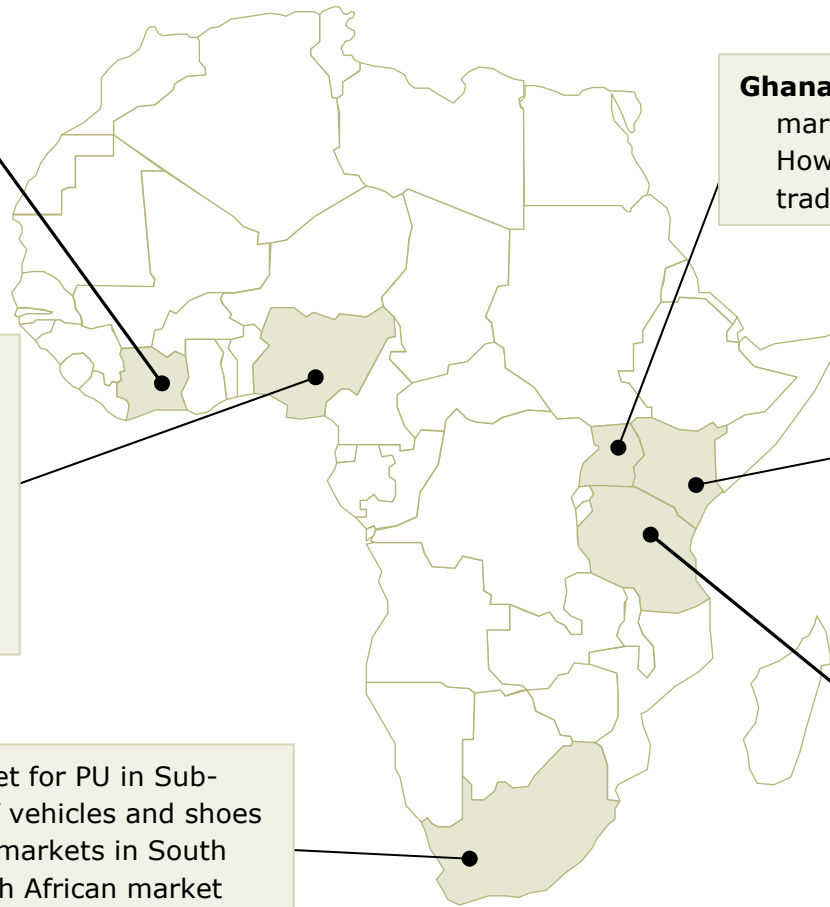
Market Overview

Total Polyurethane Market: Market Overview (Sub-Saharan Africa), 2009

Uganda has a small market for PU. It mainly manufactures PU for bedding applications in the form of cushioning. Uganda's young population holds potential to increase the demand for these applications.

Nigeria has a huge PU market in Sub-Saharan Africa, relative to its size. This market is expected to witness growth in the future. It manufactures a wider variety of PU-containing applications when compared to other Sub-Saharan African countries.

South Africa has the largest market for PU in Sub-Saharan Africa. Manufacturing of vehicles and shoes as well as paints are the largest markets in South Africa. The huge size of the South African market can be attributed to the diverse markets, thereby resulting in steady growth.



Ghana has one of the smallest PU markets in Sub-Saharan Africa. However, it engages in inter-border trade.

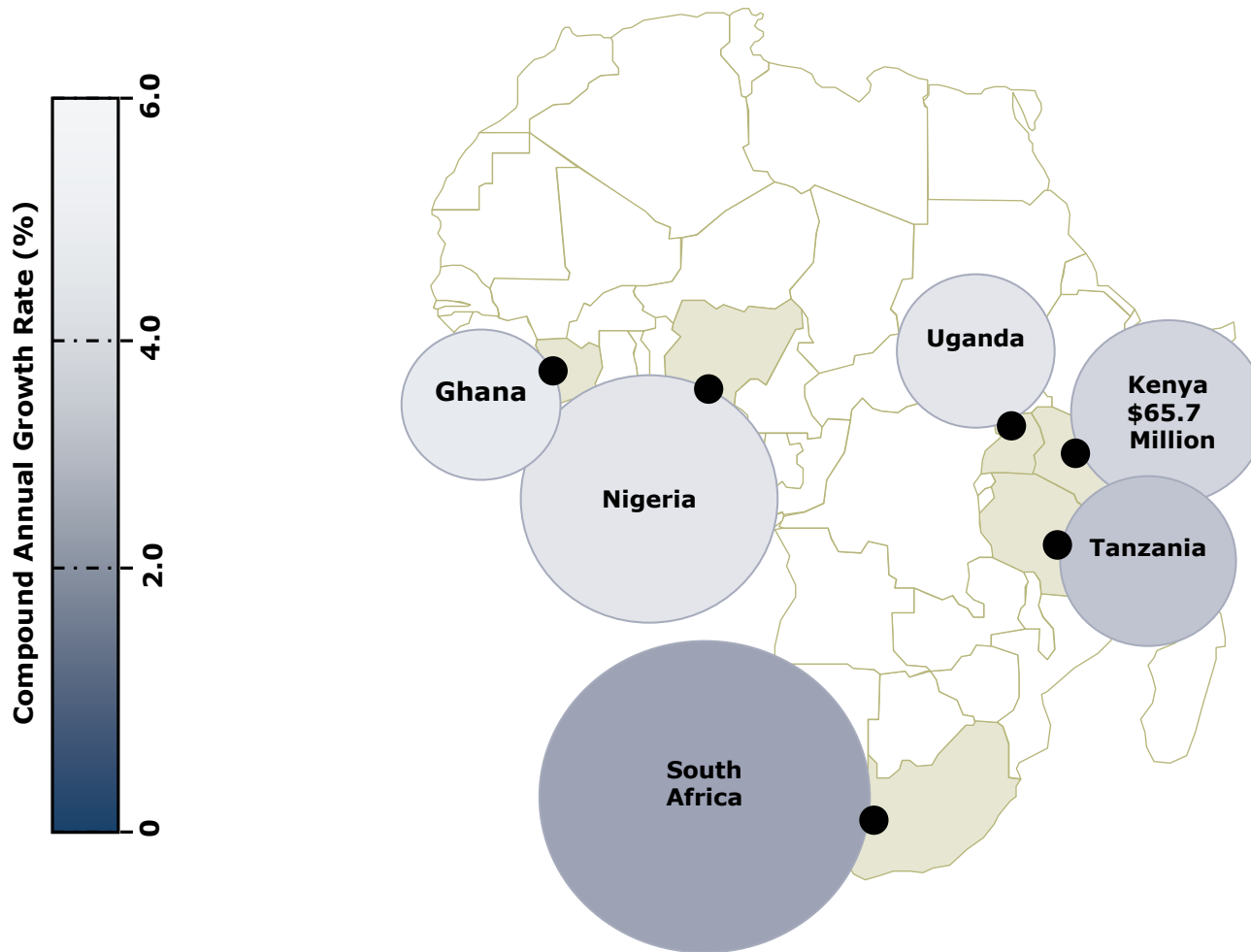
Kenya has a growing PU market due to its good distribution network system and inter-border trade operations. It is a key participant in supplying products to Ghana.

Though a relatively large country, **Tanzania** has a small PU market. It mainly manufactures flexible foam for bedding and furniture applications.

Source: Frost & Sullivan

Country-wise Summary

Total Polyurethane Market: Revenues and CAGR by Country (Sub-Saharan Africa), 2009-2016

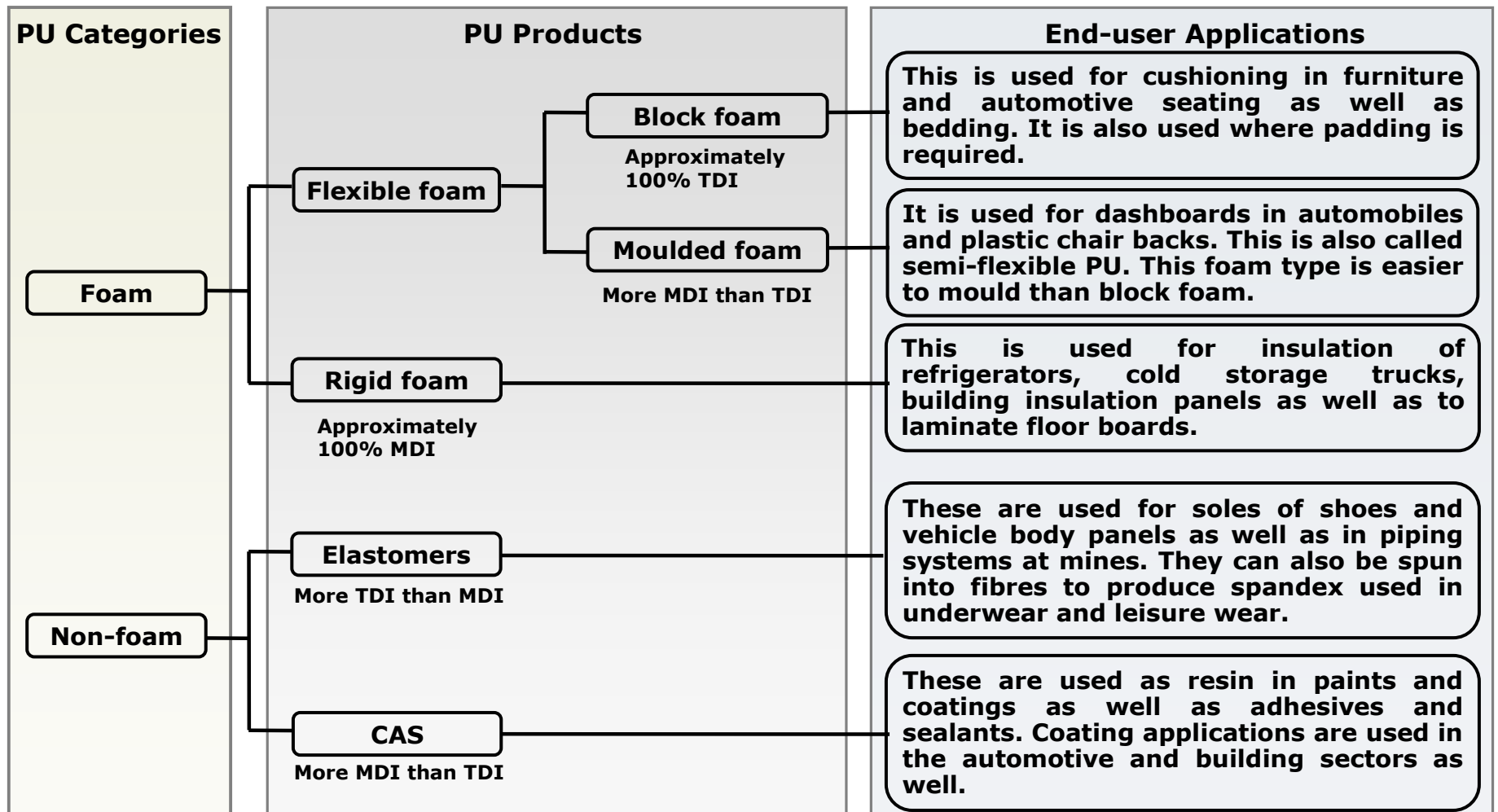


Note: Bubble size indicates the relative market size; colour indicates CAGR

Note: All figures are rounded; the base year is 2009. Source: Frost & Sullivan

Polyurethane Forms and Uses

Total Polyurethane Market: Forms and Uses (Sub-Saharan Africa), 2009



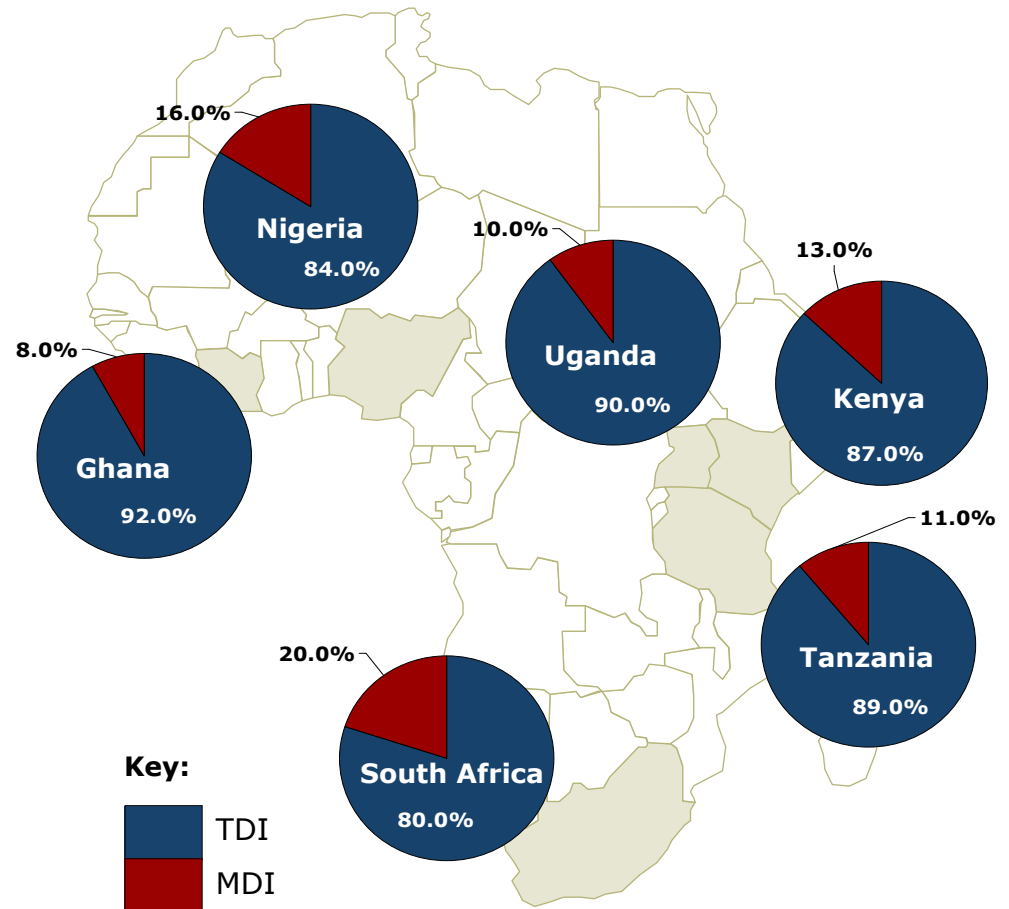
Note: CAS = Coatings, adhesives and sealants, TDI = Toluene diisocyanate and MDI = Methyl diisocyanate

Source: Frost & Sullivan

Base Material Analysis

- Globally, TDI consumption is three times that of MDI. This is because flexible foam is the largest market in terms of volume, which is widely used in bedding, furniture and other seating applications. TDI is also used in many other types of PU products, although in small quantity in certain cases.
- There is an increased shift towards more MDI-based PU, as TDI poses possible health risks upon formulation.
- MDI is used mainly in insulation applications like refrigerators and building structures (recently in Africa). PU for these applications requires formulations with 100.0 per cent of MDI.

Total Polyurethane Market: Base Material Consumption by Country (Sub-Saharan Africa), 2009



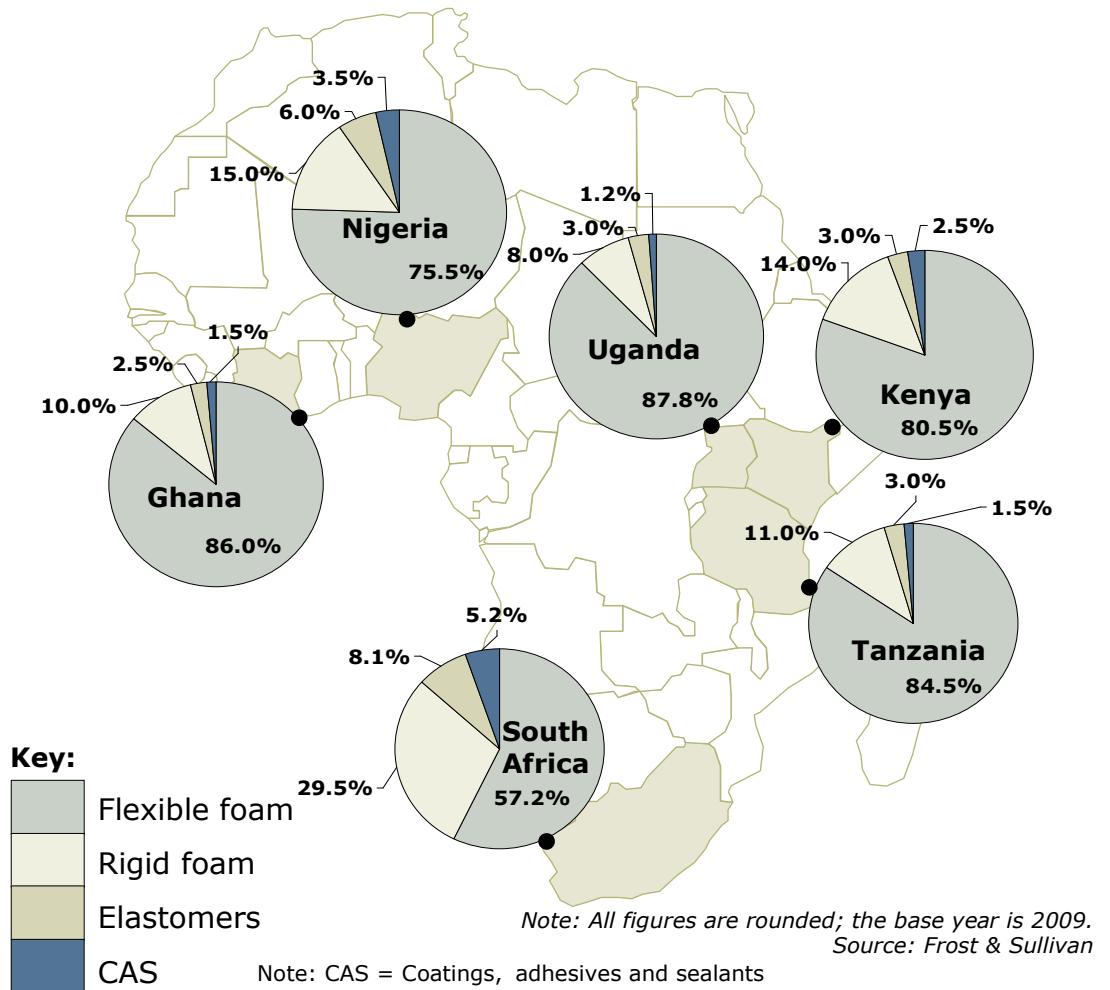
Note: TDI = Toluene diisocyanate and MDI = Methyl diisocyanate

Note: All figures are rounded; the base year is 2009.
Source: Frost & Sullivan

Product Type Analysis

- The primary use of PU is to manufacture flexible foam. Applications include seating, bedding and furniture cushioning. Flexible foam PU is also the easiest to manufacture, as it does not require intricate and expensive moulding technologies.
- Rigid foam usage is increasing in Sub-Saharan Africa, as PU insulation is being substituted for other more space-consuming insulation materials.
- Usage of elastomers and CAS is minimal in Sub-Saharan Africa, and this scenario will not change in the near future.

Total Polyurethane Market: Per Cent of Revenues for Product Type by Country (Sub-Saharan Africa), 2009

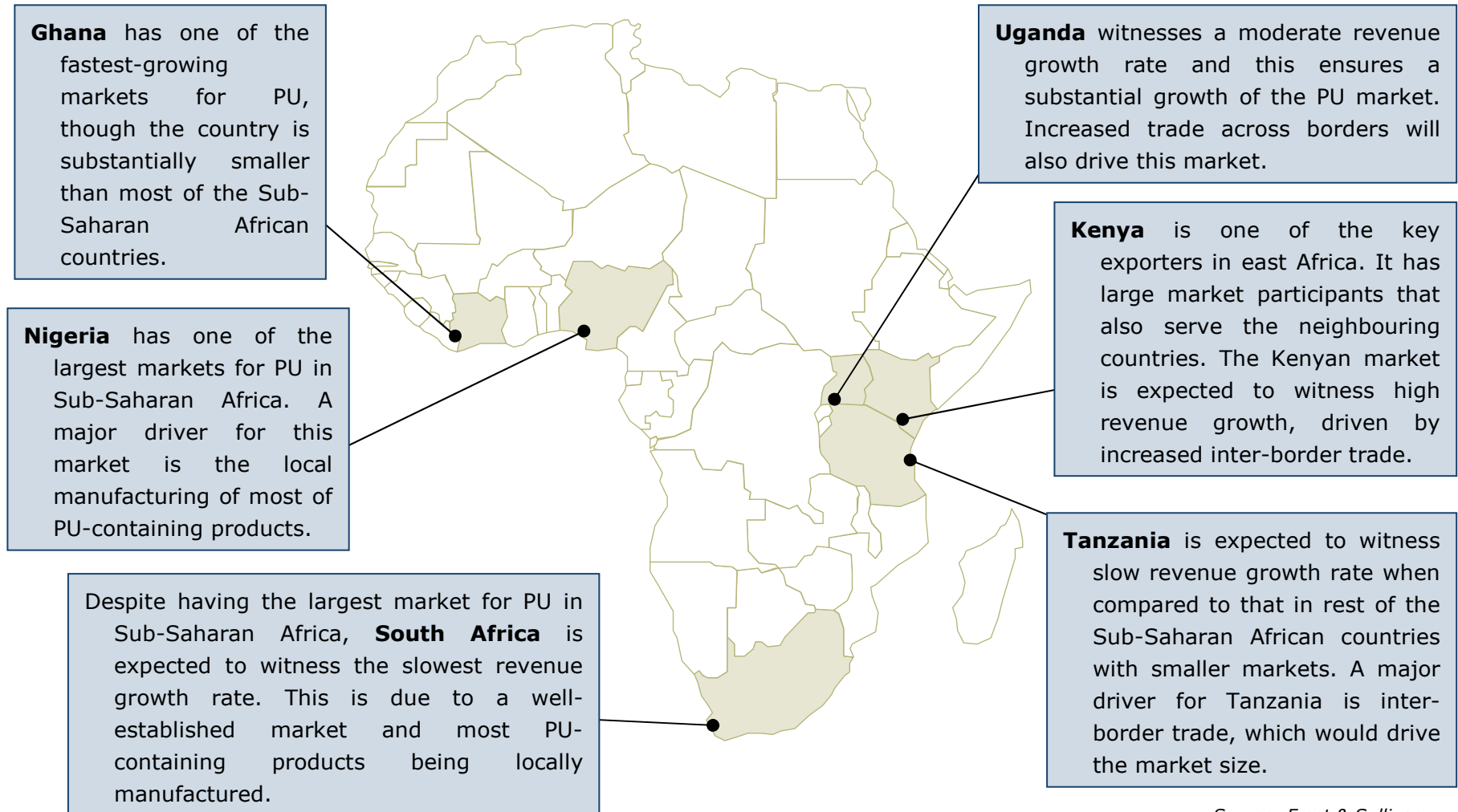


Key Findings

- Sub-Saharan Africa accounts for about 1.5 per cent of the world polyurethane market. Therefore, producing raw materials (TDI and MDI) locally is not economically feasible. Thus, all the raw materials required for PU manufacturing are imported, and the price depends on volatile exchange rates as well as availability of raw materials. TDI:MDI ratio is approximately 87:13 in Sub-Saharan Africa.
- The main PU product types manufactured for various applications include flexible and rigid foam, elastomers as well as coatings, adhesives and sealants. Flexible foam is the largest product type, as it is used in furniture, bedding and other cushioning applications.
- Bedding and furniture, automotive, refrigerators and freezers, construction, footwear, CAS and others are the major applications of PU across the world. PU has many applications due to its durability. Bedding and furniture is the main application in Sub-Saharan Africa. This application requires large amount of PU, along with the cheapest and easiest technology. Refrigerators and freezers as well as the construction sectors are increasingly using PU. These sectors are expected to witness the fastest growth in using PU.

Key Findings (Contd...)

Total Polyurethane Market: Key Findings Per Country (Sub-Saharan Africa), 2009



Source: Frost & Sullivan

Strategic Recommendations and Conclusions

Strategic Recommendations

- The total Sub-Saharan African PU market is small when compared to the Rest-of-World. Applications in Africa are not as diverse as those in Europe and Asia; however, the difference between products in the international markets and those available locally is increasing to applications.
- Companies that look to enter the total Sub-Saharan African PU market should not focus on the flexible foam sector, as it is saturated with large number of participants. This is because of the usage of flexible foam in bedding and furniture applications and low start-up cost for this type. Companies are recommended to enter a more specialised sector in the total PU market.
- From an environmental perspective, PU is easily recyclable and does not emit poisonous fumes when under extreme heat conditions.

Conclusions

- The total Sub-Saharan African PU market is witnessing fair and stable growth rate. Though flexible foam has become a commodity product, applications in the refrigerators and freezers as well as construction sectors are witnessing faster growth rates.
- The construction sector is using more PU products for insulation as a substitute for polystyrene, as PU has a longer life span. In refrigerators and freezers, it is functions as a lighter material with better insulation capabilities. These are some of the driving factors for increased usage of PU in Sub-Saharan Africa.

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