From Crude to Commerce – Exploring the Downstream Industry's Role in Economic Expansion

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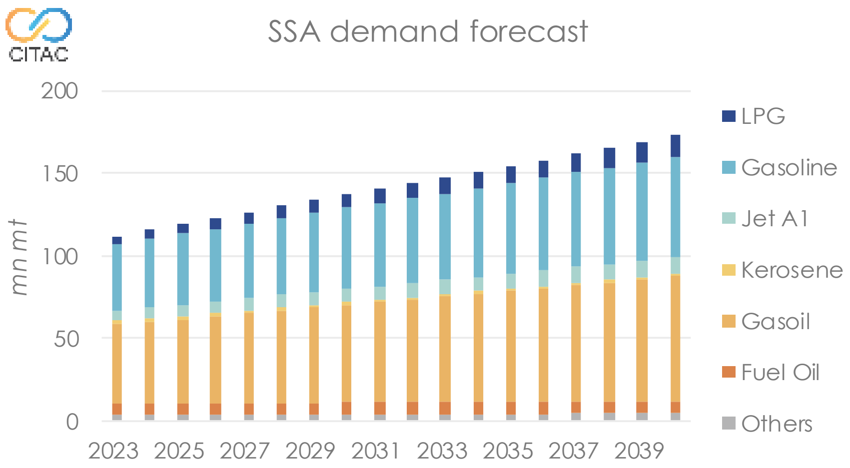
African Refiners & Distributors Association
جمعية المكررين والمسوقين الأفارقة
Association des Raffineurs & des Distributeurs Africains

The voice of african downstream oil
La voix de l'aval pétrolier africain
صوت مصب النفط الأفريقي

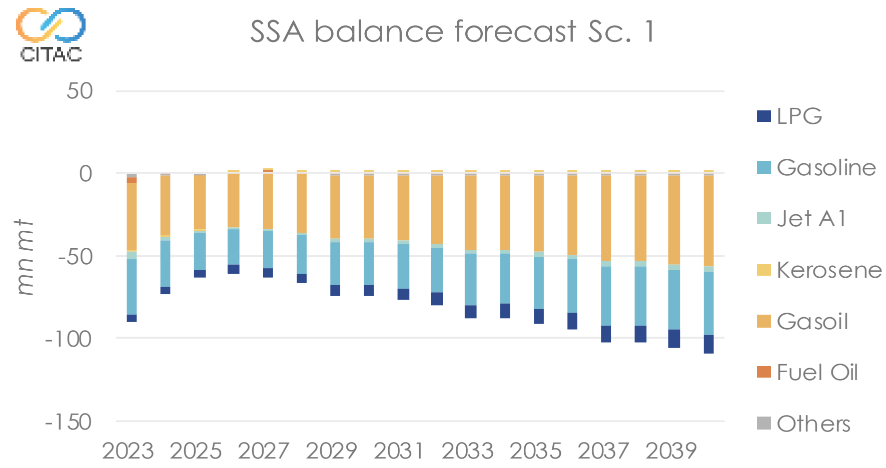
Introduction to ARA / ARDA

- ARDA = African Refiners and Distributors Association (www.afrra.org)
- Created in 2006; name changed in 2017 to reflect complete supply chain
- Acronym and logo changed from “ARA” to “ARDA” in October 2020
- **Role of the ARDA**:
  - ➢ Give unified voice to **African refiners** and independent **marketers**, **distributors** and **regulators**
  - ➢ Promote exchange of experience and best practices amongst all stakeholders
  - ➢ Champion efforts for investments across African Downstream supply chain
  - ➢ **Promote African Energy Security –** Maximize processing of African crude oil in African Refineries and transportation of cleaner fuels via integrated African Storage & Distribution infrastructure across the continent

Significant Investments needed to meet Africa’s Growing Petroleum Products Demand



Source: CITAC



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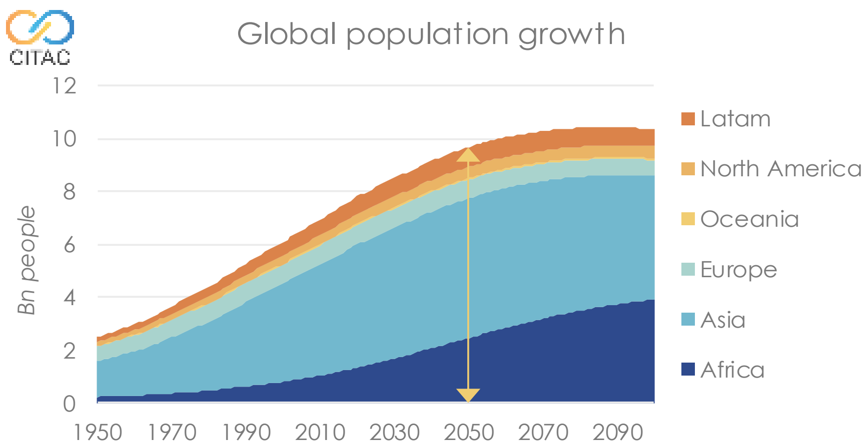


Source: UN

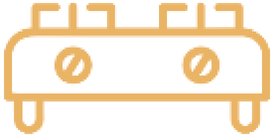
- Fossil fuels demand and products imports to grow over next two decades
- By 2050, 1 in 4 people globally will live in Africa; population is forecast to be 2.5bn
- **Downstream sector – refining, distribution, marketing & sale of petroleum products – is key driver of Africa’s economic development**

Investments across Africa's Downstream Supply Chain must be segmented by Activity

Refining

Terminals and Depots

Pipeline Infrastructure



Efficient Stoves

Tanker fleets

Service Stations

Bottling Plants & Bottle Fleets

Solar Kits

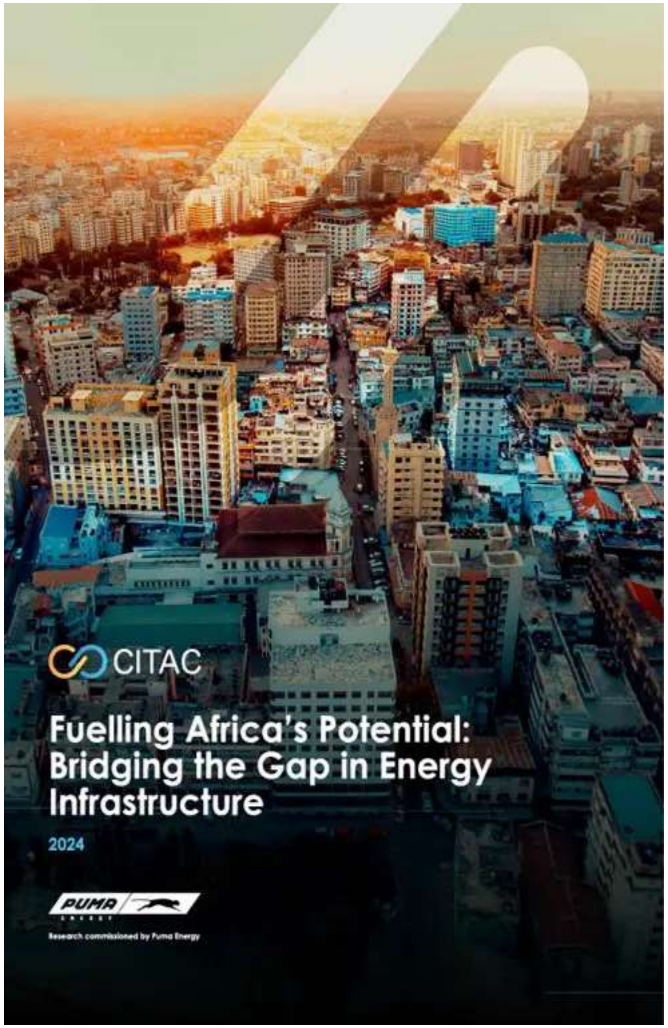
Significant Infrastructure Upgrades required to support Africa's Growing Energy Demand

- 2024 Puma/CITAC White Paper analysed infrastructural realities associated with meeting Africa's strong demand growth

- Africa's port, discharge and evacuation infrastructure characterised by:
  - ➢ Shallow drafts; congested berths
  - ➢ Small tanks; slow gate-to-gate truck times
  - ➢ Huge reliance on road transport
  - ➢ Full/near-full utilisation of pipelines (where existing)
  - ➢ Single points of failure (in some cases)

- Infrastructure challenges result in:
  - ➢ Higher prices to end consumer
  - ➢ Stockouts and business interruption(s)
  - ➢ Pollution; lost productivity
  - ➢ Road traffic accidents

- White Paper also highlighted differences between Africa and advanced economies in discharging and moving petroleum products effectively



Key Recommendations to address Supply Chain Issues and ensure Adequate, Cost-Effective Delivery

1) Conducive, Harmonized Regional Regulations

- **Different product specs between countries limits economies of scale and varying pricing policies drives smuggling**
- Regional approach increases potential for land-linked countries to coordinate volumes and improve security of supply

2) Market-based Pricing of Fuel Products

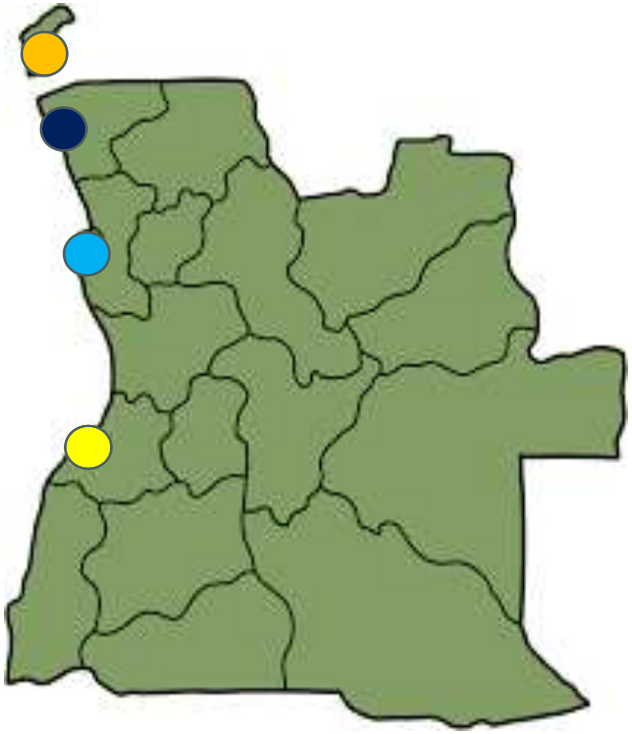
- Product pricing regulated in many SSA countries via price structures; stifle competitivity among operators with fixed margins encouraging inefficiencies
- **Market pricing drives competition creating potential for lower costs**

3) Relieve Infrastructure Bottlenecks and minimize Supply Chain Risks

- Evaluate existing/planned infrastructure adequacy against demand projections and supply dynamics and secure necessary infrastructure investments in timely manner
- **Rail, pipelines and larger ports present efficient solutions to product supply problems via trucks to more urbanized areas**

Sonaref – Increasing Angola's Energy Security via Increased Refining Capacity (425,000 BPD by 2027)

REFINERY	CAPACITY	STATUS
Luanda	65,000 BPD	Operational; new gasoline production complex completed
Cabinda	60,000 BPD	Target for Phase 1 (30,000 BPD) to be operational by 2025?
Soyo	100,000 BPD	Target startup by 2026
Lobito	200,000 BPD	Target startup by 2027
TOTAL	**425,000 BPD**	**REFINING CAPACITY**



Increasing Products Supply via Refining Capacity Growth = **Domestic Growth Strategy** + **Regional Growth Strategy**

65 to 425 KBPD by 2027

20% to 100% Domestic Market Share by 2027

0% to ~26% Regional Market Share by 2030

Supply Diversification: Expanding Refining Options to bolster Product Availability in Angola and Region

Luanda Refinery

Cabinda Refinery

- **Luanda Refinery** expansion for increased products supply flexibility will enhance Angola's energy security

- Plans for petrochemicals project(s) to deliver significant polypropylene (PP) and polyethylene (PE) by 2027

- Influx of other refineries (**Cabinda, Lobito and Soyo**) planned in near term to join Sonaref refining assets

- Phase 1 of Cabinda Refinery (30,000 bpd) to be operational by 2025?

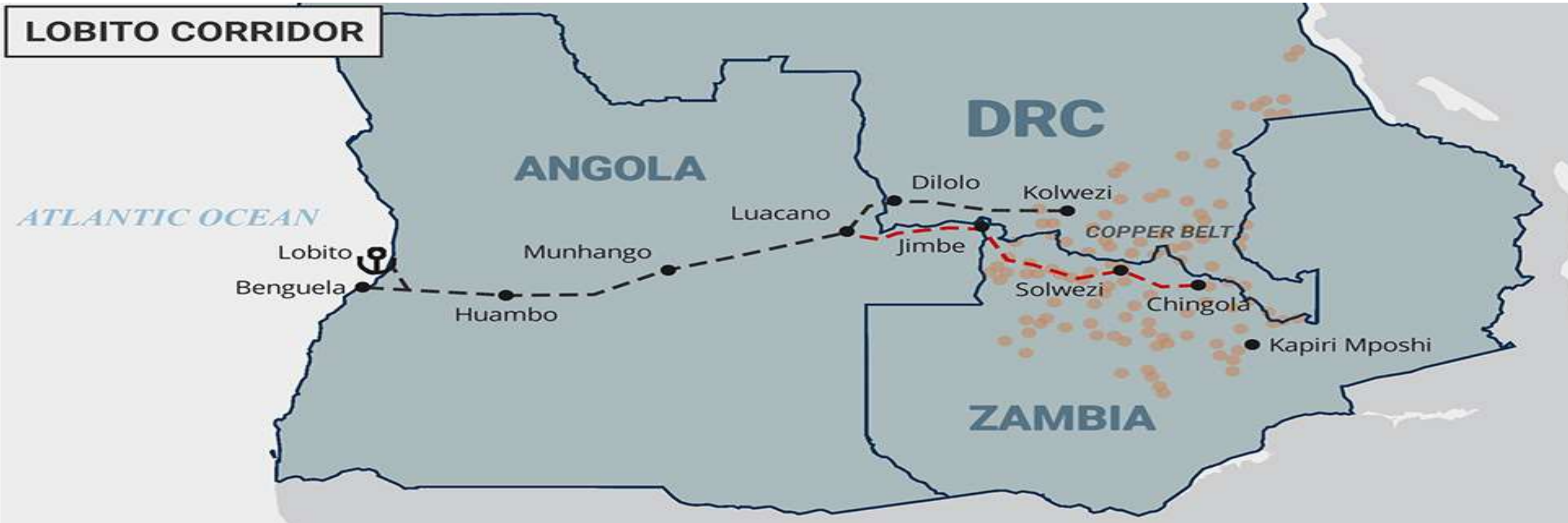
Supply Diversification: Waterborne Volumes enhance Angola's Products Supply Chain

- Angola has oil product discharge capability in multiple ports (**Luanda, Lobito, Namibe**)
- Advantage becomes more important as demand centres outside of Luanda expand
- Around Luanda, there are multiple, large scale discharge options (Pumagol, etc.)
- **<u>Advantage: </u>No single point of failure, unlike some other African countries**

Angola as Regional Hub for Petrochemicals

- Vast natural gas resources and fast-growing population make Angola a logical hub for development of **petrochemical facilities**
- Petrochemicals are contained in 95% of all manufactured goods, **most of which African countries currently import**
- Vibrant Petrochemicals Industry will promote value addition and import substitution while also reducing emissions
- **Methane (and NGLs contained in stream) flaring reduced but still ongoing** rather than routed to shore for upgrading or other applications
- **~750 KT of propane exported from Angola annually**; can be upgraded onshore in propane dehydrogenation (PDH) units to produce PP and hydrogen
- Angola exported excess naphtha to international markets in past; **~60% reduction (300 KT to ~120 KT) since Luanda refinery reformer upgrade in 2023**

Lobito Corridor – Regional Infrastructure to Unlock Value beyond Crude Oil



Source: Geopolitical Monitor (September 2024)

- Critical regional, pan-African infrastructure traverses multiple sectors
  - ➢ Transportation & logistics, agriculture, clean energy, health and digital access

- Promotes intra-African trade – transportation of cobalt and copper from DRC and Zambia and goods from Lobito to the DRC.
  - ➢ Only 13% of Africa's trade is intra-regional vs. Asia (55%), N. America (49%) & EU (63%)

2025 ARDA Week – Cape Town, South Africa

« Africa First: Delivering our Energy Future »

« L'Afrique d'abord: Assurer notre Avenir énergétique »

- **VENUE: Century City Conference Centre (CCCC), Cape Town, South Africa**
- Contact: **info@afrra.org** for more information

2025
Capetown, South Africa
ARDA WEEK
7-11 APRIL

2025
Capetown, Afrique du Sud
ARDA WEEK
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Thank You for your Attention