



Harmonizing Downstream Regulation in the era of AfCFTA

**Anibor Kragha,
Executive Secretary
African Refiners and Distributors Association (ARDA)**

11 March 2021

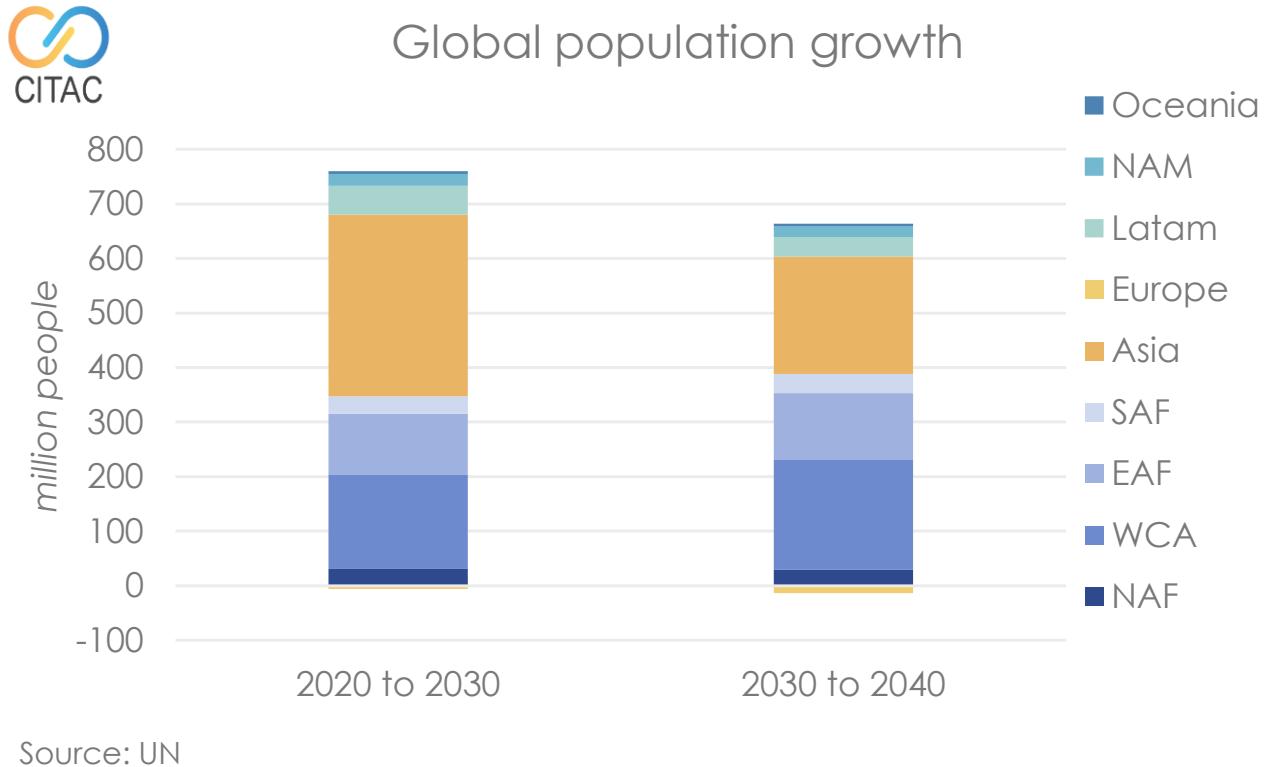
Contents

-
- 1. Introduction to ARDA**
 - 2. Context: Africa's Population Growth and Energy Transition**
 - 3. Urgent Need for Harmonization**
 - 4. Drive for Cleaner Fuel Specifications**
 - 5. Taxation, Subsidies and pricing**
 - 6. Regulatory Enforcement**
 - 7. The Way Forward**

Introduction to ARDA

- ARDA = African Refiners and Distributors Association (www.afrra.org)
 - **Mission: To serve as Leader in Africa's transition to Cleaner Fuels**
 - Created in 2006; name changed in 2017 to reflect complete supply chain
 - Represents pan-African Downstream oil industry; Members include refineries, terminals, pipeline operators, distributors, marketers and regulators
- Role of ARDA:
 - Give unified voice to **African refiners and marketers, distributors and regulators**
 - Promote exchange of experience and best practices amongst all stakeholders
 - **Champion efforts for efficient, economic, safe, secure and sustainable investments across African Downstream supply chain**
 - Foster cooperation with relevant governments, industry groups, regulatory agencies, financial & academic institutions and other NGOs
 - **Promote African Energy Security** – Maximize African Crude Oil into African Refineries, refined petroleum products into African Storage & Distribution Infrastructure, financed mainly by African Financial Institutions

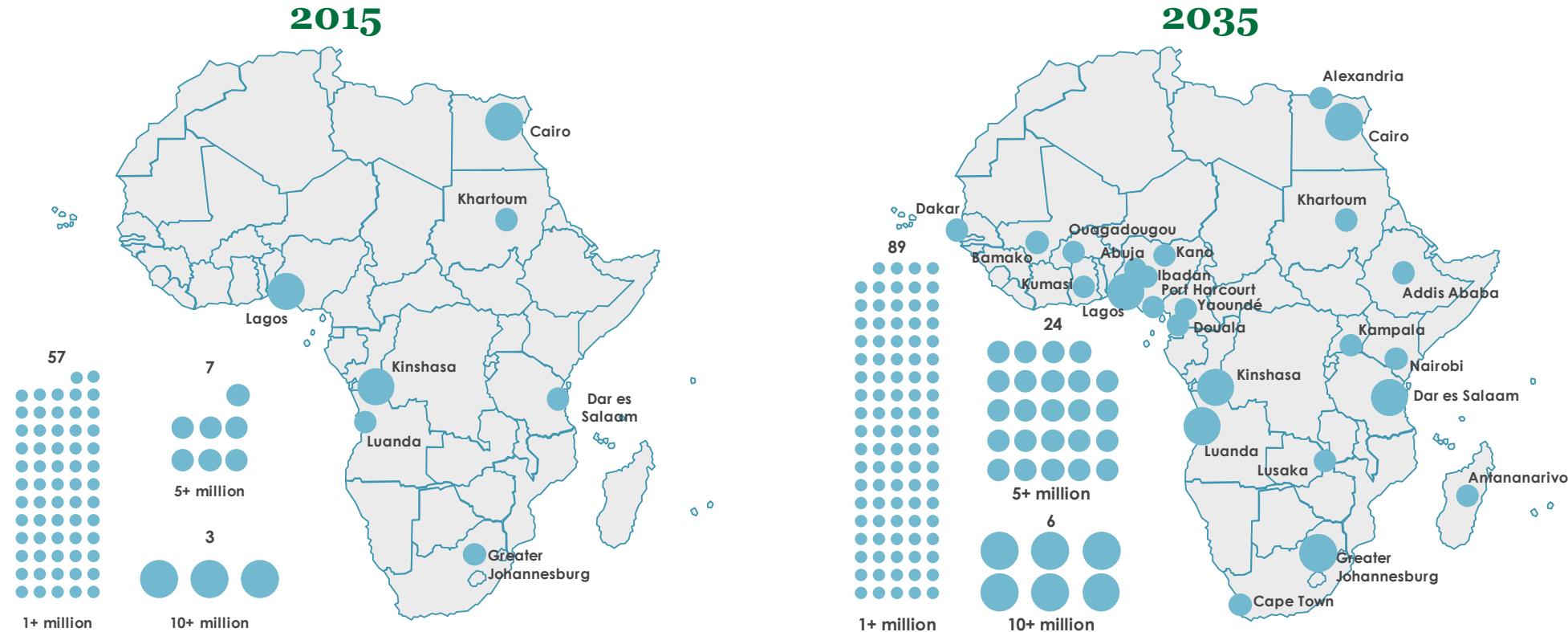
Context: Africa's population is exploding...



- Africa to account for 46% of global population growth over 2020-2030 and 60% over 2030-2040
- Nigeria to be the world's third most populous nation by 2050

...and urbanising fast

African cities by population

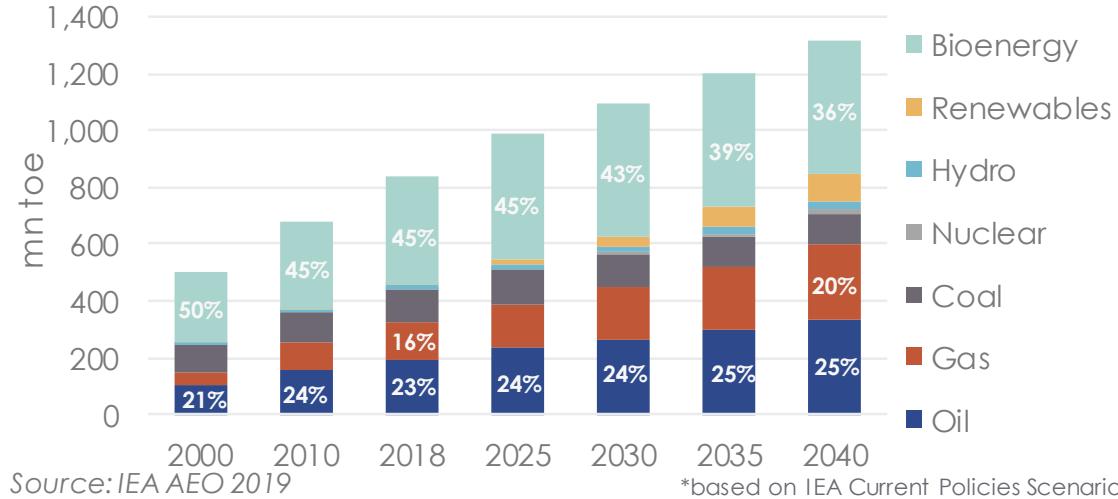


- Urban population in Sub-Saharan Africa to increase by 322mn people (to 757mn) by 2035

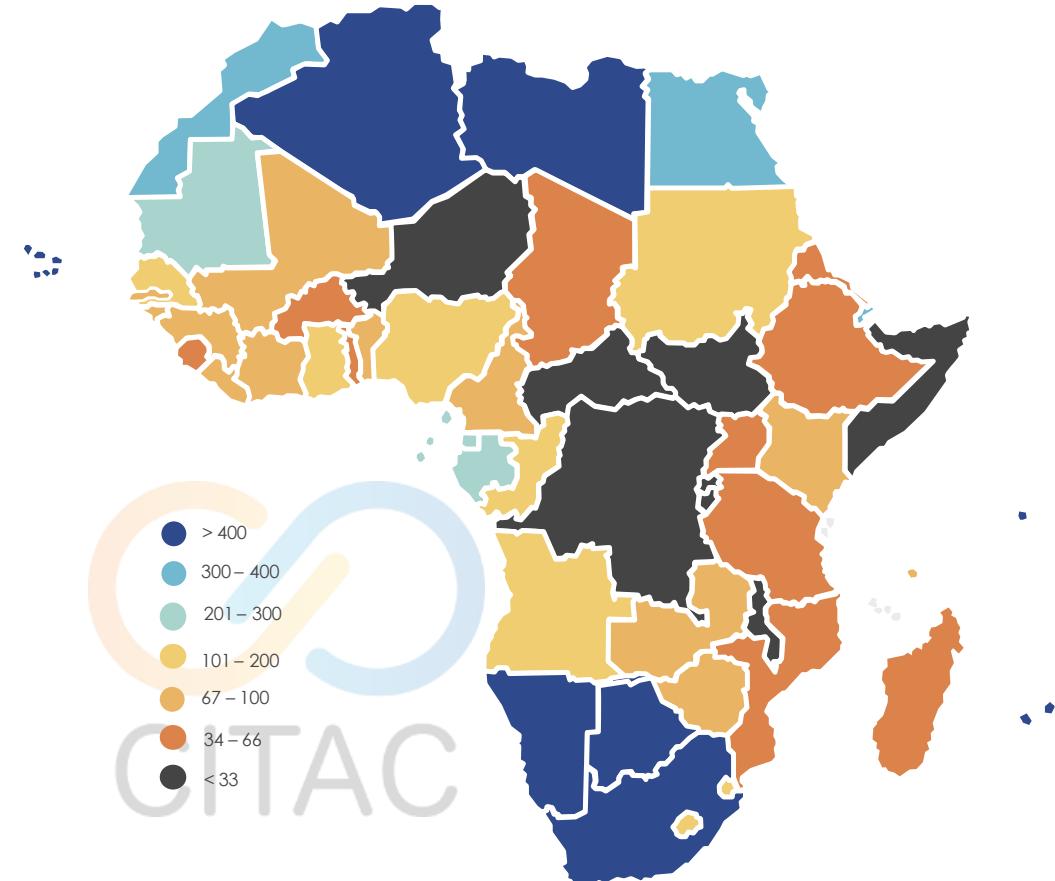
Oil products to remain a vital source of energy



African primary energy mix forecast*



Per capita oil consumption 2019
(kg per person)



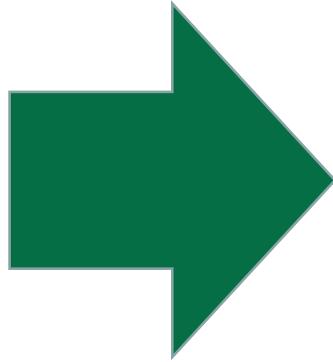
- In both absolute and percentage terms, oil products consumption is growing
- Per capita consumption still very low in many places

Urgent Need for Harmonisation of Regulations

CAUSE(S)

Africa still characterised by lack of harmonization in key regulatory areas:

- **Specifications**
- **Pricing**
- **Tariffs**
- **Other taxation**
- **Subsidies**
- **Enforcement**



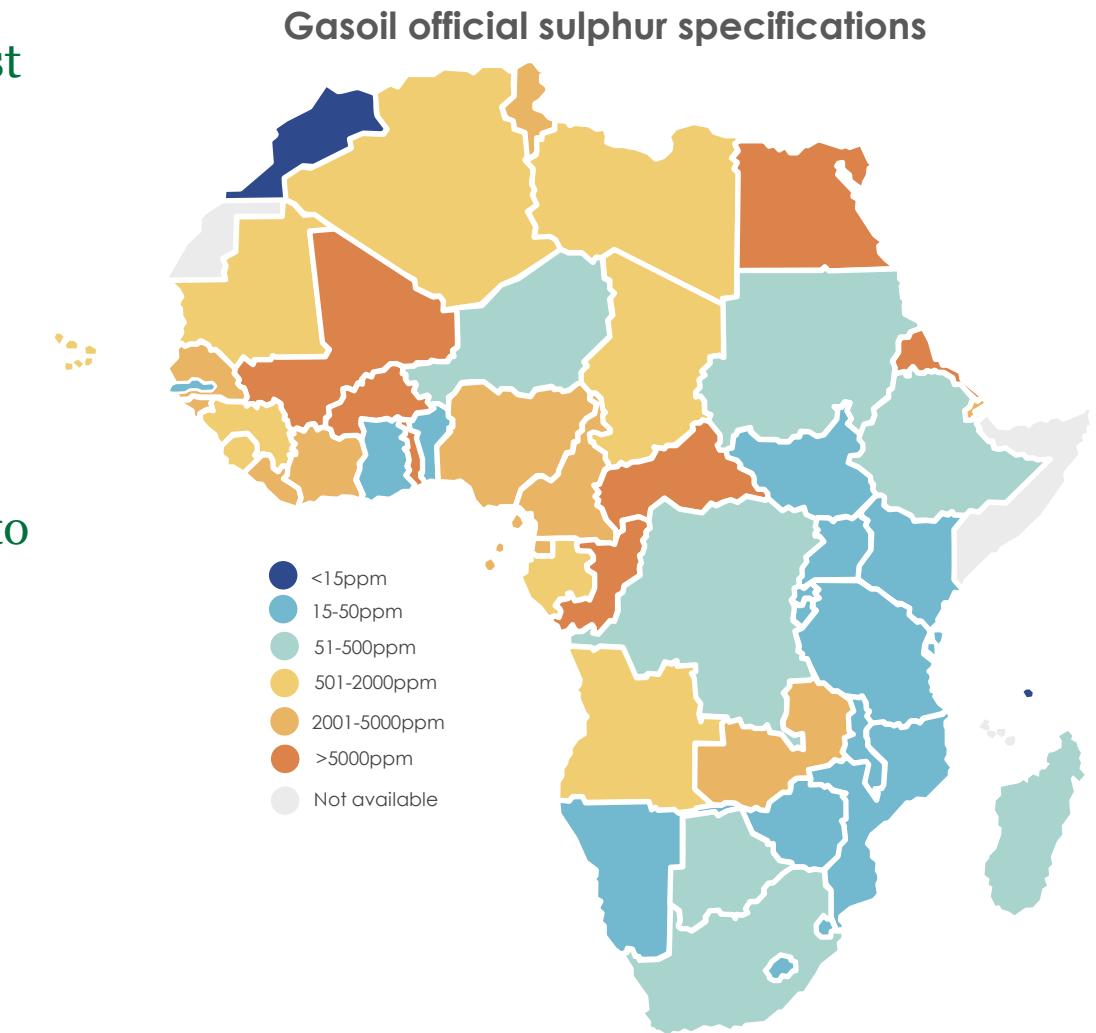
EFFECT(S)

This leads to:

- **Smuggling**
- **Fuel adulteration**
- **Pollution**
- **Vehicle damage**
- **Stunted/warped investment environment**
- **Segregated supply chains: higher prices to end consumer**

Uneven Progress in Adoption of Harmonized Fuel Specs

- Many countries have tightened specifications over past decade; **little coordination between countries**
- Major exception is East African Community (EAC) which now has uniform specifications
- Lax diesel sulphur specifications major challenge in West Africa – even if delivered quality is far superior to official specs
- Dangote output (Euro V compliant) will transform landscape; still room for economic, regional refinery projects



ARDA leading Drive to Harmonise Clean Fuel Specs

ECOWAS Study on Harmonising Fuel Specs

- Recommended AFRI-5 (max. 50ppm sulphur) imports from 1 January 2021; refinery waivers until end 2024
- Feb. 2020 meeting of Oil & Environment Ministers adopted Study recommendations; Directive issued in September 2020
- Implementation on-going on individual country basis



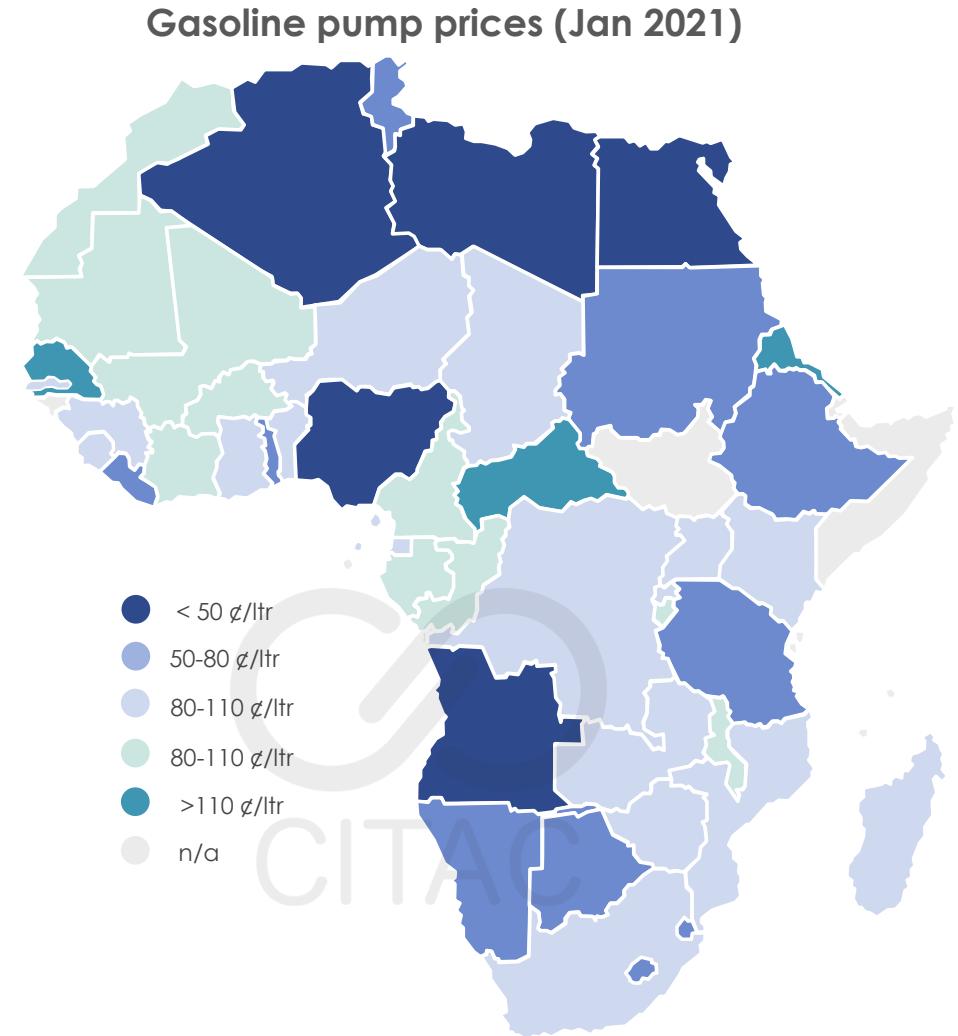
ARDA/AUC Study on Adoption of AFRI Fuels Road Map

- Phase 1: Highlighted health and & socio-economic benefits of cleaner harmonised fuel specs
- Phase 2: Finalizing assessment of cost implications of upgrading refineries to produce low sulphur (AFRI-6) fuels specs
- Recommendation is adoption of AFRI-6 (max. 10ppm sulphur) for imports and refined products by 2030
- Stakeholder Validation completed; progressing adoption within AUC approval processes



Key Enablers (1) – Harmonized Taxation, Subsidies & Pricing

- AfCFTA must enable standardisation of external tariffs
- Maximizing Africa's Free Trade Areas also requires harmonization of:
 - **Other Taxation (Excise, VAT, misc. levies)**
 - **Subsidies & 'under-taxation' (incl. on LPG)**
 - **Pricing (abolish price structures?)**
 - **Currency (single currency?)**
- Lack of uniform pricing results in smuggling e.g.:
 - Libya → Tunisia
 - Nigeria → Benin
 - Angola → DRC
 - Guinea → Mali



Key Enablers (2) – Enforcement of Regulations

- Independent regulatory oversight and enforcement vary significantly by country and ‘activity’:
 - Licensing
 - Specifications
 - Price structures, transport equalisation, subsidy administration
 - HSE
 - Fuel marking
- Lack of coordinated regulatory approaches between countries results in regulatory arbitrage
- Regional Economic Communities (RECs) are natural starting point for continent-wide regulation
 - Particularly pressing for 15-member ECOWAS, with its complex supply chains and pricing

Way Forward – Key Next Steps

- Uniform regulatory standards and enforcement must be established at REC level
- Implementation of Harmonized Fuel Specifications must be fast-tracked
 - ECOWAS Directive on new AFRI-5 gasoline and diesel specs
 - AUC Endorsement of AFRI-6 fuel specs
- Fiscal and regulatory harmony across Africa will unlock full AfFCTA potential
 - Long-term commitment required – EU started with Coal and Steel Community of 1951



Source: African Union



Thank you
www.afrra.org

AFRI Roadmap – Gasoline

	Gasoline AFRI specifications					
	AFRI-1	AFRI-2	AFRI-3	AFRI-4	AFRI-5	AFRI-6
RON, min. ^[1]	91	91	91	91	91	93
MON, min.	81	81	81	81	81	83
Lead content, mg/l, max. ^[2]	Unleaded	Unleaded	Unleaded	Unleaded	0.005	0.005
Sulphur content, % mass, max.	0.100	0.050	0.030	0.015	0.005	0.001
Benzene content, vol%, max.	to be reported	to be reported	5	1	1	1
Aromatics, vol%, max.	n/a	n/a	n/a	n/a	42	35
Density at 15°C, kg/m ³ min-max	n/a	n/a	n/a	n/a	725-780	725-775
RVP, kPa, max.	n/a	n/a	n/a	n/a	65	65
Ethanol content, vol%, max. ^[4]	10	10	10	10	10	10
Manganese content, mg/ltr, max.	n/a	n/a	n/a	n/a	18	6

1. A higher grade of gasoline may be marketed if required.

2. “Unleaded” means <0.013g of lead per litre.

3. In case of dispute test method ASTM D5453 shall be used.

4. Imported gasoline to be free from oxygenates.

AFRI Roadmap – Gasoil

	Gasoil AFRI specifications					
	AFRI-1	AFRI-2	AFRI-3	AFRI-4	AFRI-5	AFRI-6
Sulphur content, % mass, max.	0.800	0.350	0.050	0.005	0.005	0.001
Density at 15°C, kg/m³, min/max. ^[2]	800 / 890	800 / 890	800 / 890	820 / 880	820-880	820-845
Cetane Index (calculated), min.	42	45	45	45	46	46
Cetane Number, min.	n/a	n/a	n/a	n/a	49	51
Polycyclic Aromatics Hydrocarbons (PAH), max	n/a	n/a	n/a	n/a	11	8
Lubricity (HFRR @ 60 °C), micron, max.	to be reported	to be reported	460	460	460	460
FAME content, vol%, max.	7	7	7	7	7	7
Oxidation stability, hr, min ^[3]	20	20	20	20	20	20

1. In case of dispute test method ASTM D5453 shall be used.

2. In case of dispute test method ASTM D4052 shall be used.

3. Applicable only to gasoil/diesel containing > 2% v/v FAME