WHAT'S NEXT FOR AFRICA?

OIL AND GAS PROJECTS WORTH AT LEAST $213 BILLION ARE EXPECTED IN AFRICA WITHIN THE NEXT HALF-DECADE. MONEDA R&I BREAKS IT DOWN.

OCTOBER, 2021

Source: 1952 Africa

"Our mission is to trigger unconventional growth in African natural resource value chains - using alternative credit systems and world class execution."

$213.59B

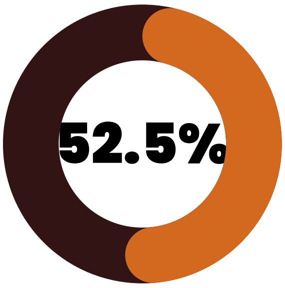
Total value of investments

40
Number of oil and gas projects

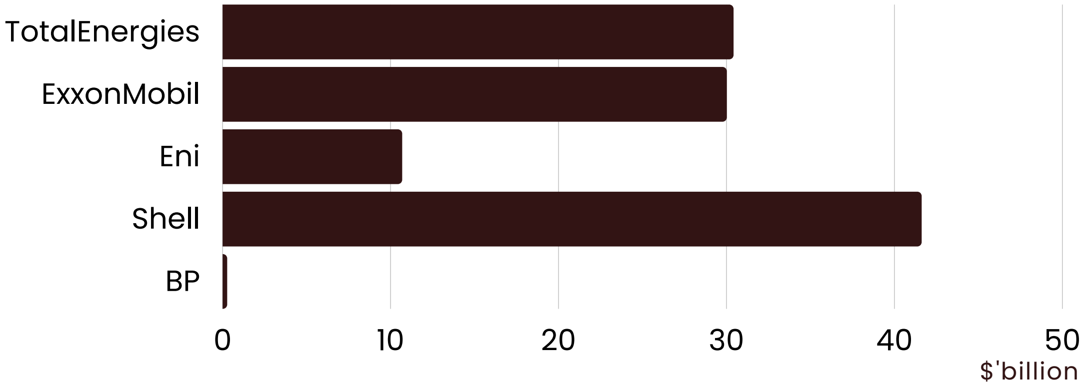
Projects in construction phase

70%
Operated by private companies/consortia

$117B
Investments by Big Oil



Gas utilization projects

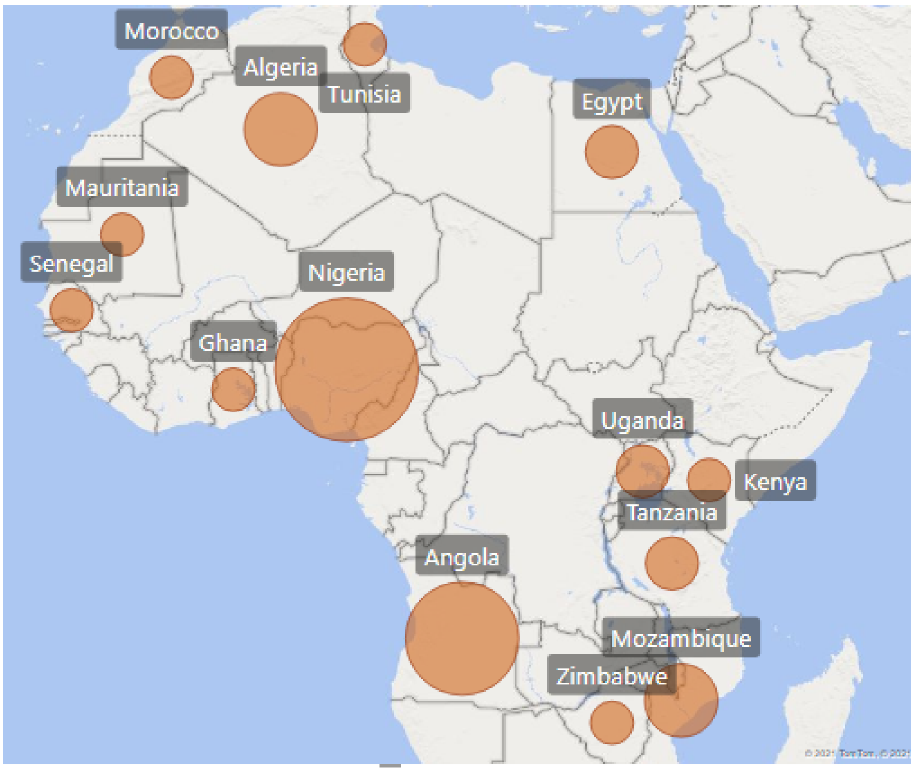


51.58MT
Of additional LNG output per year

8.334B
Cubic feet of gas production per day

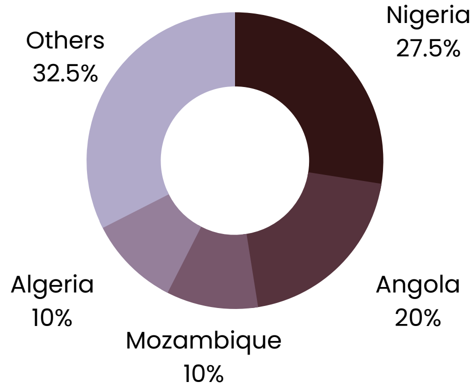
902K
Barrels of oil production per day

1.58MM
Barrels of additional refining capacity

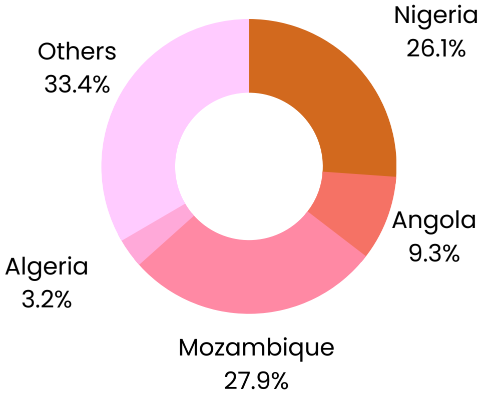


- Sub-Saharan Africa dominates with 80% of projects and about 90% of investments.
- North Africa is heavily focused on gas - 7 of 8 projects are gas-based.

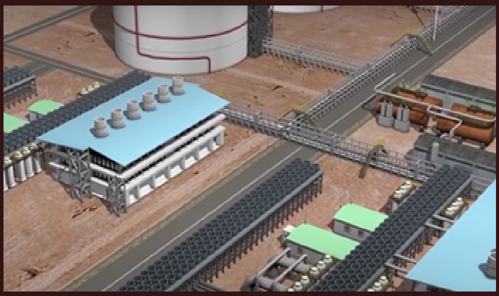
COUNTRY VS NUMBER OF PROJECTS



COUNTRY VS VALUE OF INVESTMENTS



TOP TEN PROJECTS



Ranked in order of decreasing cost

LIKONG'O - MCHINGA LNG

LINDI, TANZANIA

Value: $30 billion

Expected Startup: N/A

Scope: Two LNG trains, 5MTPA each

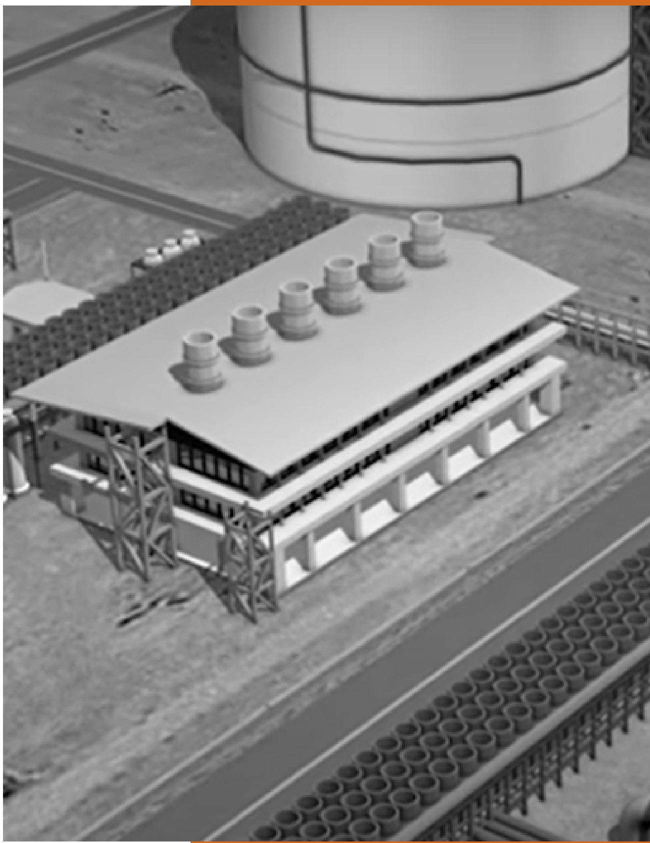
Operator: Shell & Equinor

Major contractor: N/A

Status: Negotiations

Key details

- FID is yet to be reached and contractors have not been picked.
- Negotiations resumed in May '21 and FID is expected in 2022.
- Contracts for local companies on two fronts: upstream development and LNG plant construction.



ROVUMA LNG

AFUNGI, MOZAMBIQUE

Value: $30 billion

Expected Startup: Unknown

Scope: Two LNG trains, 7.6MTPA each

Operator: ExxonMobil

Major contractor: JGC, Fluor, TechnipFMC (JFT)

Status: Negotiations

Key details

- Potential opportunities in fabrication and procurement. Mitsubishi Industries has been identified as major manufacturer of equipment
- 60 wells to be drilled offshore: opportunities in drilling and associated services
- Opportunities for owners of vessels to lease LNG carriers for export

Challenge

- Worsening security situation may extend timelines.

MOZAMBIQUE LNG/AREA 1

CABO DELGADO, MOZAMBIQUE

Value: $20 billion

Expected Startup: 2024

Scope: LNG plant, 12.88MTPA

Operator: TotalEnergies

Major contractor: Saipem, McDermott, Chiyoda

Status: Under Construction*

Key details

- Construction has begun, and may be difficult for new contractors to enter.
- Opportunities for financiers to support already awarded contractors.

Challenge

- Worsening security situation may extend timelines.

*currently halted as a result of insurgency.

OGIDIGBEN INDUSTRIAL PARK

DELTA STATE, NIGERIA

Value: $16 billion

Expected Startup: N/A

Scope: Fertilizer, petrochemical, CPF and power plants

Operator: NNPC

Major contractor: Julius Berger, GS&E

Status: Pre-construction

Key details

- Short-term opportunities abound for civil works/contracts.
- Longer-term opportunities will include procurement and fabrication.

Challenge

- Activities have been halted for years and this may impact cost and project plans

DANGOTE REFINERY

LAGOS, NIGERIA

Value: $12 billion

Expected Startup: 2022

Scope: 650,000bpd refinery

Operator: Dangote

Major contractor: Schneider Electric, Fabtech, Hang Xiao Steel

Status: Construction

Key details

- Project is nearing completion, opportunities may be available for local offtakers of petroleum products.
- Reports of financial challenges faced by the project may present opportunity for investors/financiers to snap up equity.

NAMIBE REFINERY COMPLEX

NAMIBE, ANGOLA

Value: $20 billion

Expected Startup: 2024

Scope: LNG plant, 12.88MTPA

Operator: TotalEnergies

Major contractor: Saipem, McDermott, Chiyoda

Status: Under Construction*

Key details

- Opportunities for civil construction, procurement of lines and fabrication.

Challenge

- Activities have been halted for years and this may impact cost and project plans.

BONGA SOUTHWEST - APARO

OFFSHORE, NIGERIA

Value: $10 billion

Expected Startup: N/A

Scope: FPSO, 20 wells & subsea infrastructure

Operator: Shell

Major contractor: Doris Group

Status: Planning

Key details

- Fabrication of FPSO topside modules and subsea infrastructure.
- This mostly presents opportunities for major indigenous contractors.
- There are also opportunities in drilling and its related services.

TILENGA/EACOP

LAKE ALBERT, UGANDA

Value: $8.7 billion

Expected Startup: 2025

Scope: Field development, 1,443km pipeline

Operator: TotalEnergies

Major contractor: TechnipFMC, CB&I, Fluor

Status: Negotiations

Key details

- Tenders were released mid-2021 but most were civil-related. Procurement and fabrication of pipelines opportunities are on the horizon.
- Service contracts in drilling and development are available in Tilenga.

Challenge

- Environmental concerns may stall FID and consequently, delay the project.

TAHRIR PETROCHEMICALS

AIN SOKHNA, EGYPT

Value: $7.5 billion

Expected Startup: 2023

Scope: 4MTPA Naphta cracker plant

Operator: Carbon Holdings

Major contractor: Bechtel, Linde, Maire Tecnimont

Status: Pre-construction

Key details

- Opportunities for gas utilization in the wake of growing gas discoveries.
- Procurement and civil construction; although it is unclear if tendering has been done.

Challenge

- Construction should have begun in 2019 but did not for unknown reasons. This will delay timelines.

ZABAZABA & ETAN

OFFSHORE, NIGERIA

Value: $6 billion

Expected Startup: Unknown

Scope: Field development

Operator: Eni

Major contractor: N/A

Status: Negotiations

Key details

- Fabrication of FPSO topside modules and subsea infrastructure but mostly presents opportunities for major indigenous contractors.
- Drilling and its related services.

Challenge

- OPL 245 has been a subject of litigation. Although Eni (and partner, Shell) has been acquitted, it is unclear what will happen next.

PROJECTS BREAKDOWN

NAME	COUNTRY	OPERATOR	START-UP	STATUS
Rovuma LNG	Mozambique	ExxonMobil	N/A	Negotiations
Likong'o-Mchinga	Tanzania	Shell & Equinor	N/A	Negotiations
Area 1 LNG	Mozambique	TotalEnergies	2024	Construction
Ogidigben gas park	Nigeria	NNPC	N/A	Pre-construction
Dangote Refinery	Nigeria	Dangote	2022	Construction
Namibe Refinery	Angola	Sonangol	N/A	Negotiations
Bonga SW/Aparo	Nigeria	Shell	N/A	Planning
EACOP/Tilenga	Uganda	TotalEnergies	2025	Negotiations
Tahrir Petrochem	Egypt	Carbon Holdings	2023	Pre-construction
Zabazaba & Etan	Nigeria	Eni	N/A	Negotiations
GasNosu Gas Pipeline	Mozambique	Gigajoule Group	2023	Planning
Coral FLNG	Mozambique	Eni	2022	Construction
Jorf Lasfar LNG	Morocco	ONEE	N/A	Tendering
Pecan Project	Ghana	Aker Energy	N/A	Negotiations
Sangomar Project	Senegal	Woodside Energy	2023	Construction
NLNG Train 7	Nigeria	NLNG	2025	Pre-construction
Hassi Messaoud	Algeria	Sonatrach	2024	Pre-construction
Brass Fertilizer	Nigeria	BFPCL	2025	Planning
Soyo refinery	Angola	Sonangol	2024	Negotiations
South Lokichar Project	Kenya	Tullow	2024	Planning
Uganda Oil Refinery	Uganda	AGRC	2025	Pre-construction
Lobito Refinery	Angola	Sonangol	2025	Tendering
Mtwara Fertilizer	Tanzania	TPDC	2020	Negotiations
HA Field	Nigeria	Shell	2024	Tendering
Hassi R'Mel Phase 3	Algeria	Sonatrach	2021	Completed

OCP Fertilizer Plant	Nigeria	OCP	2025	Planning
Harare-Beira Pipeline	Zimbabwe	Covern Energy	N/A	Feasibility
Nawara Gas Project	Tunisia	ETAP & OMV	2020	Completed
Zohr Gas Phase 3	Egypt	Petrobel	2021	Construction
Zinia 2	Angola	TotalEnergies	2021	Completed
Ain Tsila Project	Algeria	Groupe Isarene	N/A	Planning
Cabinda Refinery	Angola	Gemcorp	2022	Construction
ANOH Gas Project	Nigeria	Seplat	2022	Construction
Tinrhret Gas Project	Algeria	Sonatrach	2022	Construction
Ikike Project	Nigeria	TotalEnergies	2022	Construction
Platina Project	Angola	BP	2022	Construction
PAJ Block 31	Angola	BP	2023	Planning
Agogo FFD	Angola	Eni	N/A	Planning
Preowei	Nigeria	TotalEnergies	N/A	Pre-construction
Tortue Ahmeyim	Mauritania	Kosmos Energy	2022	Construction

THE GIFT THAT KEEPS ON GIVING

The domination of oil and gas will continue in Africa.

All projects analyzed are long-term projects with the least having an estimated project life of almost 20 years, an indication that Africa does not look to end its dependence on oil and gas any time soon.

While many may argue that Africa is being left behind in the energy transition race, perhaps, it is worthy to note that she is adopting a gradual and balanced transition rather than an abrupt one. **52.5%** of projects are gas-based, which will provide a cleaner fuel to not only power the continent but to drive industries across the world. An estimated **8.334BCFD** of additional natural gas production will aid the increment of LNG output capacity by **51.58MTPA** largely driven by **Mozambique**'s triad of LNG projects (**Rovuma, Area 1, and Coral**).

In a land filled with challenges, a flower grew from the concrete.

The number of projects, as well as the volume of investments, shows a lot of promise for the continent but there is a tall hurdle to climb - quite a number of the projects may not meet their timelines. Projects have been riddled with delays and the pandemic of 2020 made matters even worse. Almost **50%** of projects are likely to not meet their timelines for reasons ranging from security concerns to politics and finance. Some projects have stalled for years with the longest being Egypt's **Tahrir Petrochemicals Complex** which was expected to have been completed since 2017 but stalled due to the aftermath of the Egyptian Revolution and it is still unlikely to meet its new project start-up target - 2023. Mozambique's security situation has also stalled two major LNG projects on the continent. **3** of the **8** Angolan projects are to be operated by Sonangol, a company that is in a bit of a pickle after posting a **$4.1 billion loss** in 2020.

With reports of a decline in the insurgency in Mozambique, there is a probability of major projects not being extended for a long period. As a matter of fact, projects involving Big Oil and other international independents are attractive since they are barely politically driven, unlike state-oil companies. These projects can reduce delays to as low as possible. A good example is Eni's Agogo field that went from discovery to production in 9 months.

MONEDA

For further enquiries on how Moneda can assist, kindly contact;

Shalom Ukpai
T: +234 909 085 2852
E: shalom.u@monedainvest.com

Chinedu Ajaegbu
T: +234 815 552 7290
E: chinedu.a@monedainvest.com

Follow @monedainvest on social media

Nigeria
6, Abike Suleiman,
Lekki Phase 1,
Lagos.

Mauritius
71, Floreal Road,
Plaine Wilhems District,
Curepipe.