



United Nations  
Economic Commission for Africa

# Achieving a just and equitable energy transition for all

**Second session of the fourth Africa climate talks**  
*Enhancing climate resilience for better human security in the Sahel region*

26 - 27 February 2023  
Niamey, Niger

**Dr Linus Mofor**

Senior Environmental Affairs Officer (Energy, Infrastructure & Climate Change)

African Climate Policy Centre (ACPC), Technology, Climate Change, and Natural Resources Management Division,  
United Nations Economic Commission for Africa



IdeastoAction

[www.uneca.org](http://www.uneca.org)



# Africa's energy paradox

## Abundant resources

### Renewable resources:

- 20,000 MW of geothermal
- 350,000 MW of hydropower
- 110,000 MW of wind
- Abundant solar irradiation: 40% of global solar irradiation but only about 1.5 percent of global solar power capacity

### Fossil resources:

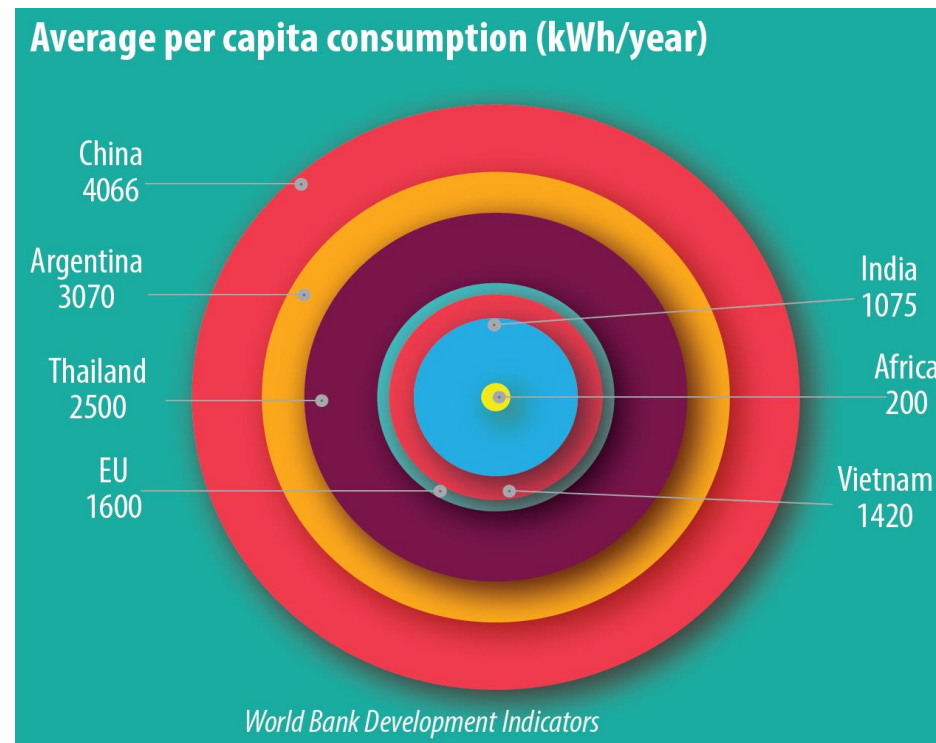
- Africa has good reserves of oil and natural gas.
- In 2020
- 7.2% of world's 1.73 trillion barrels of crude oil reserves
- 7.8% of world's 88.4 million barrels per day production
- 7.6% of world's 207 trillion cubic metres of gas reserves
- 6.2% of the world's 3.9 trillion cubic metres of natural gas

# Africa's energy paradox

## Abundant energy resources, Yet:

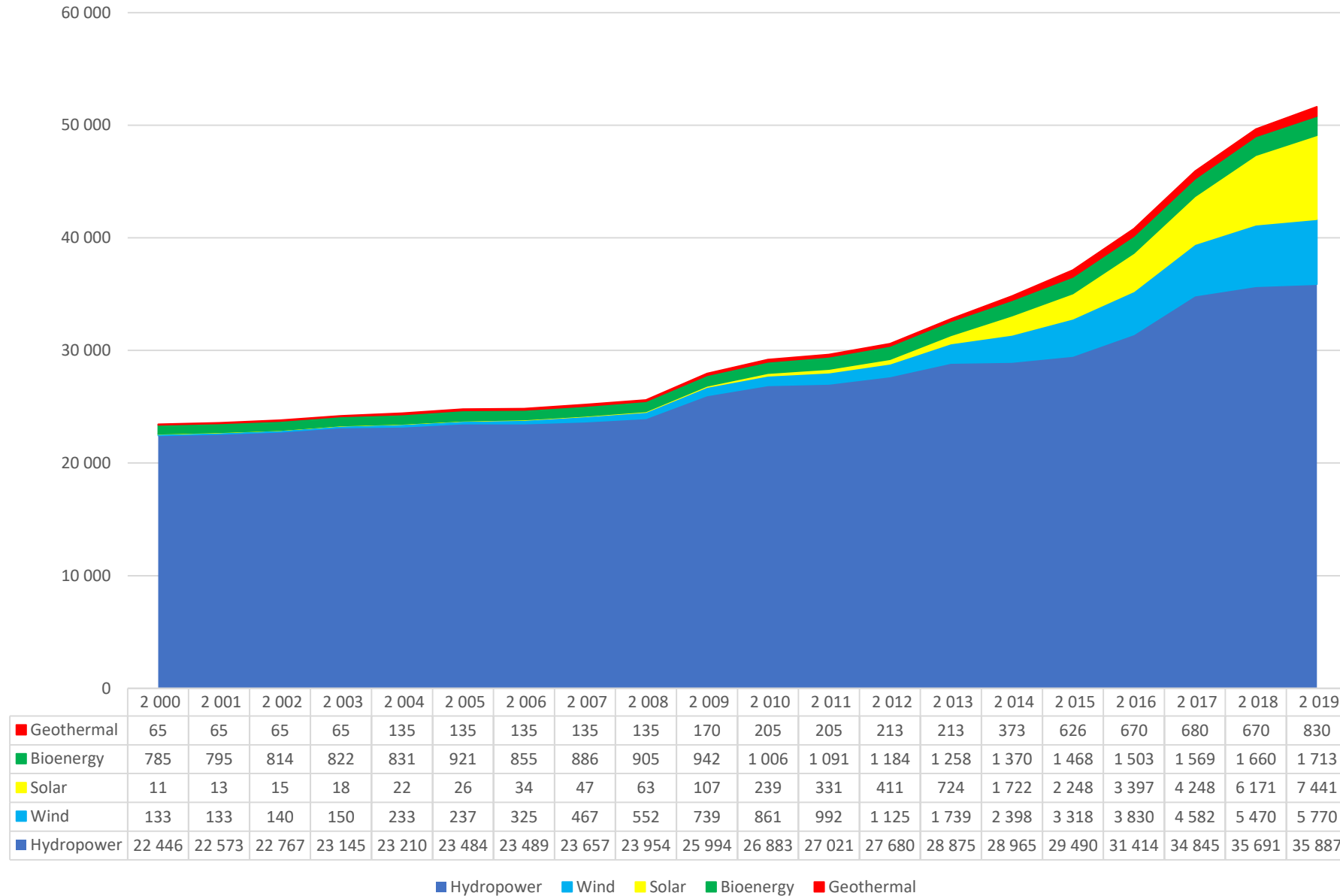
- 78% (560 million) of people globally without access to electricity
- 36% of 2.6 billion people without access to clean cooking
- 3.3 percent of global consumption of primary energy
- 3.2 percent of the 27,005 terawatt-hours of electricity generated globally
- 3 percent of global energy use in industry
- 3.5 percent of global installed electricity capacity of 7,100 gigawatts
- Less than 2 percent of global clean energy investments over last 10 years

- Very low consumption
- Low installed capacity
- Excluding South Africa and North African countries, rest of Africa has similar installed capacity as South Africa



**Limited and weak transmission and distribution; low cross-border trade in electricity**

# Growth in Renewable Electricity Capacity in Africa (MW)

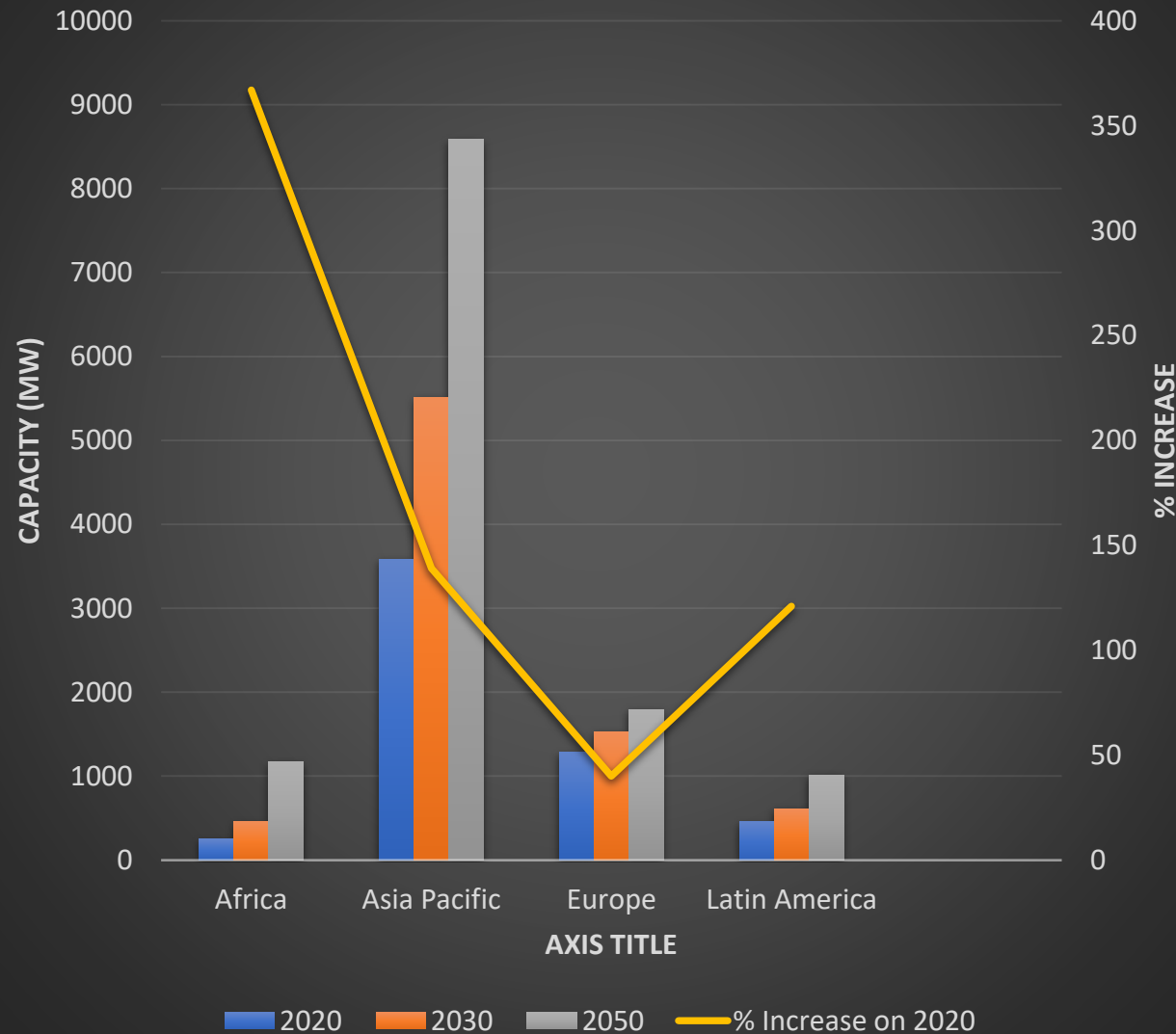


## Africa's electricity mix - 2019

Source	Capacity (MW)	Share (%)
Gas	87,000	37.2
Coal	54,995	23.5
Hydro	35,887	15.3
HFO	25,038	10.7
Solar	7,441	3.2
Wind	5,770	2.5
Nuclear	1940	0.8
Bioenergy	1,713	0.7
Geothermal	830	0.4

Source	Generation (TWh)	Share (%)
Gas	342	40
Coal	256	30
Hydro	134	15.7
HFO	77	9
Wind	14.12	1.7
Solar	8.7	1
Geothermal	5	0.6
Bioenergy	3.23	0.4

## Electricity capacity additions to 2050: Highest transformation in Africa (Enerdata)



To meet its SDG objective



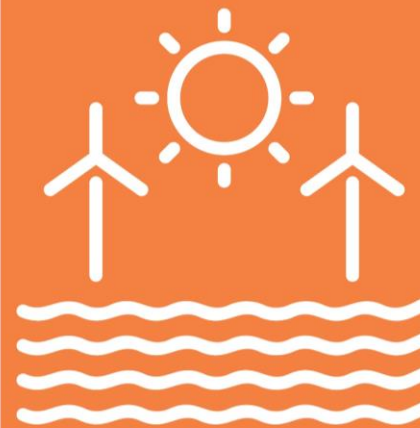
**1250GW**

**250GW**

**2030**

**2050**

Africa will need to nearly double its present electricity generation capacity by 2030 and increase it by at least five-fold by 2050.



**80%**

electricity generation capacity can be from clean energy power sources by

**2050**



- Just transition appears on once and in the preamble of the Paris Agreement but dominates the narrative.
- Africa can be the global growth pole for the energy transition and drive to net zero towards the temperature goal of the Paris Agreement.
- But, a **compelling** just and equitable energy transition in Africa must be:
  - ✓ Defined by Africa – **Kigali Communiqué + AUC Common African Position + COP27 decisions**
  - ✓ Led by Africa
  - ✓ Based on optimal use of the continent's abundant renewable energy and critical mineral resources
  - ✓ Involve Africa's private sector and domestic markets
  - ✓ Supported by international partners
  - ✓ Attractive to FDI

# The Kigali Communique on a Just and Equitable Energy Transition in Africa

## 7 principles:

- ✓ Make modern sustainable energy available to the entire continentLed by Africa
- ✓ Support Africa in the deployment of gas as a transition fuel and the long-term displacement of gas by renewable energy and green hydrogen for industrial development
- ✓ Pursue a modern energy minimum of 1,000 kWh per capita consumption
- ✓ Scale-up private and public sector investment to well over US\$ 2 trillion
- ✓ Prioritize the creation of millions of local jobs in the new sustainable energy sector
- ✓ Lift development finance restrictions that currently limit projects in Africa
- ✓ Catalyze a step-change in technology transfer mechanism



# The African Union's Common Position on a Just and Equitable Energy Transition in Africa

- Adopted at the 41st Ordinary Session of the Executive Council in July 2022
- The Common Position stipulates that Africa will continue to deploy all forms of its abundant energy resources including renewable and non-renewable energy to address energy demand. Natural gas, green and low carbon hydrogen and nuclear energy will therefore be expected to play a crucial role in expanding modern energy access in the short to medium term while enhancing the uptake of renewables in the long term for low carbon and climate-resilient trajectory.
- Emphasises Africa's right for *a differentiated path towards the goal of universal access to energy, ensuring energy security for our Continent and strengthening its resilience, while at the same time acting responsibly towards our planet by improving the energy mix* (H.E. Commissioner Abou-Zeid)

## COP27 Decision on energy: The Sharm el-Sheikh Implementation Plan (SHIP):

- *Acknowledges* that the **impacts of climate change exacerbate** the global energy and food crises, and vice versa, particularly in developing countries
- *Stresses* that the increasingly complex and **challenging global geopolitical situation** and its impact on the energy, food and economic situations.....
- *Emphasizes* the urgent need for immediate, deep, rapid and sustained reductions in global greenhouse gas emissions by Parties across all applicable sectors, including through increase in low-emission and renewable energy, **just energy transition partnerships and other cooperative actions;**
- *Recognizes* that the unprecedented global energy crisis underlines the **urgency to rapidly transform energy systems to be more secure, reliable, and resilient**, including by accelerating clean and just transitions to renewable energy during this critical decade of action;

## COP27 Decision on energy: The Sharm el-Sheikh Implementation Plan (SHIP):

- Stresses the importance of **enhancing a clean energy mix**, including low-emission and renewable energy, at all levels as part of **diversifying energy mixes and systems**, in line with national circumstances and recognizing the need for support towards just transitions;
- *Calls* upon Parties to accelerate the development, deployment and **dissemination of technologies, and the adoption of policies, to transition towards low-emission energy systems**, including by rapidly scaling up the deployment of clean power generation and energy efficiency measures, including accelerating efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies, while providing targeted support to the poorest and most vulnerable in line with national circumstances and recognizing the need for support towards a just transition;

## COP27 Decision on energy: The Sharm el-Sheikh Implementation Plan (SHIP):

*Affirms* that sustainable and just solutions to the climate crisis must be **founded on meaningful and effective social dialogue and participation of all stakeholders** and notes that the global transition to low emissions provides opportunities and challenges for sustainable economic development and poverty eradication;

*Emphasizes* that **just and equitable transition encompasses pathways that include energy, socioeconomic, workforce and other dimensions**, all of which must be based on nationally defined development priorities and include social protection so as to mitigate potential impacts associated with the transition, and highlights the important role of the instruments related to social solidarity and protection in mitigating the impacts of applied measures;



Chronic energy and development needs, climate change, and geopolitical shocks shaping Africa’s energy transition narrative

TheGuardian

Home Nigeria World Politics Sport Opinion Business

Industry

‘Energy transition cannot be identical considering Africa’s industrialisation need’

By Femi Adegboye

27 June 2022 | 3:05 am



Contributor: Photos/FACEBOOK/Professoryemisiobajola

Let Africa exploit its natural gas reserves, says Mary Robinson

Ex-UN climate envoy says continent’s need for energy is so great it should be able to widely use the fossil fuel



ARGUMENT An expert’s point of view on a current event.

Europe to Africa: Gas for Me but Not for Thee

Europe is ramping up its use of the dirtiest fuels—but keeps pressing Africa to stick to draconian green goals.

By W. Gyude Moore, a senior policy fellow at the Center for Global Development, and Todd Moss, the executive director of the Energy for Growth Hub.

ARGUMENT An expert’s point of view on a current event.

Why the Climate Panic About Africa Is Wrong

Once again, the rich world sees Africans as a threat to the planet.

By Todd Moss, the executive director of the Energy for Growth Hub, and Vijaya Ramachandran, the director for energy and development at the Breakthrough Institute.

Green + Equality

Europe’s Rush to Buy Africa’s Natural Gas Draws Cries of Hypocrisy

The EU wants to import as much African gas as it can, but doesn’t want to fund projects that would allow the

Bloomberg

Africa Edition

Live Now Markets Technology Politics Wealth Pursuits Opinion Businessweek Equality Green CityLab

Sign


EU Plans to Court Africa to Help Replace Russian Gas Imports

EU drafts action plan to cut energy dependence on Moscow

Europe to work with major producers and consumers of LNG

YallaAfrica

Africa’s energy transition calls for pragmatic measures to keep the continent competitive



Africa’s energy transition

United Nations Economic Commission for Africa (Addis Ababa)

ANALYSIS

By Vera Songwe, Damola Ogundijo and Amani Abou-Zeid

1. United Nations Under-Secretary-General and Executive Secretary of the Economic Commission for Africa

2. CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All

3. Commission for Infrastructure & Energy, African Union Commission

Chronic energy and development needs, climate change, and geopolitical shocks shaping Africa’s energy transition narrative

United Nations University

EXPLORE PROJECTS ARTICLES PUBLICATIONS EXPERTS

Home > Projects

Stranded Assets and Climate Change in the Context of Sustainable Development in Africa

nature

Explore content About the journal Publish with us Subscribe

nature > correspondence > article

CORRESPONDENCE | 13 July 2021

Africa: renewables infrastructure avoids stranded assets



COVID-19 Foreign Policy Economic Diplomacy Governance Natural Resource

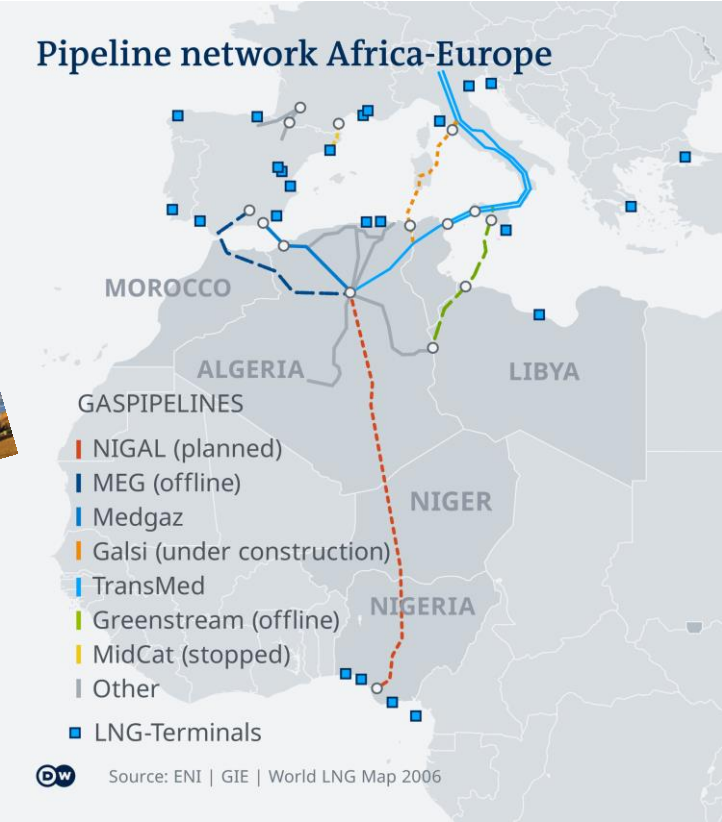
Policy Insights | Extractives, Natural Resources

Stranded Assets: The Nexus Between Extractives, Climate, & the Circular Economy Within the African Extractives Sectors

Who owns Africa’s fossil fuel assets?



Whose stranded assets?



IAEE Energy Forum / First Quarter 2020

Energy Transition and Stranded Assets: What does the Future Hold for Africa?

BY ANDREW AKWENY AND ROCKSON SAI



## A compelling energy transition in Africa is a win-win opportunity

- Opportunity to scale up clean energy, industrialize and develop regional and global value chains for transformation of critical minerals to drive the global electric shift & net zero
- Involvement of Africa's private sector
- Countries can take opportunity to address policy and regulatory barriers to investment
- Opportunity for strengthened international partnerships to de-risk investments
- Huge investments in transmission and distribution + dispatchable power to ramp up more variable renewables
- Does natural gas has a role as a transition fuel – e.g. for:
  - ✓ Clean cooking
  - ✓ accelerated deployment of variable renewables
  - ✓ Phase-out of more polluting fuels – coal & HFO
  - ✓ transition to **green hydrogen** economy



**THANK  
YOU!**

Ideas  
to  
Action