# The intersection of climate policy and energy security in Africa: Challenges and opportunities By Mandisa V. Xuba

#### Introduction

Africa possesses an abundance of renewable-energy resources, including solar, wind, hydro, and geothermal energy. Yet, a significant portion of its population remains without access to reliable and affordable energy, highlighting a critical paradox in the continent's energy landscape. According to the <a href="International Energy Agency (IEA)">International Energy Agency (IEA)</a>, about 900 million Africans still rely on traditional biomass for cooking, and more than 600 million lack access to electricity. This widespread energy poverty severely constrains economic growth and sustainable development.

To address these challenges, African governments are increasingly implementing climate policies and strategies, such as the <u>nationally determined contributions (NDCs)</u> under the Paris Agreement, South Africa's 2017 <u>national climate change adaptation strategy (NCCAS)</u>, and the <u>Africa climate change strategy</u>, among others. These frameworks emphasise the transition to renewable energy as a means to enhance energy access and sustainability.

However, for these policies to be truly effective, they must be seamlessly integrated into national energy strategies to strengthen energy security and resilience against climate change. Some countries demonstrate significant progress, such as Kenya, which is on track to achieve universal energy access by 2030. Kenya's success, particularly in renewable energy, with about 90% of its electricity deriving from renewable sources, serves as an innovative model for other African countries to emulate.

Drawing on Kenya's leadership in renewable energy, Morocco's extensive solar investments, and South Africa's transition from coal dependency, this paper seeks to offer valuable insights into effective practices, policy integration approaches, and innovative solutions for achieving both energy security and climate resilience.

# Policy issue and background

The primary issue lies in the complex interplay between climate policy and energy security in Africa, with countries facing a myriad of interrelated challenges as they strive to meet their climate commitments. One significant concern is the energy sector's vulnerability to the impacts of climate change and rising temperatures, erratic weather patterns, and natural disasters that disrupt energy production and supply, particularly for countries reliant on hydropower, which can lead to energy shortages and instability. In addition, there is a policy disconnect, with many current climate initiatives failing to adequately address the immediate energy needs of growing populations.

A rapid shift from fossil fuels, without fully considering the socioeconomic realities, may worsen energy poverty, particularly among marginalised communities that are least prepared for such changes. In addition, investment barriers slow progress towards energy security.

Despite the growing focus on renewable energy, significant investments in infrastructure, technology, and capacity-building are essential to support this transition, particularly given that the region, home to about 20% of the global population, <u>receives</u> less than 3% of global energy.

spending. Energy investment in the region has been declining since its peak in 2014, with a 34% reduction.

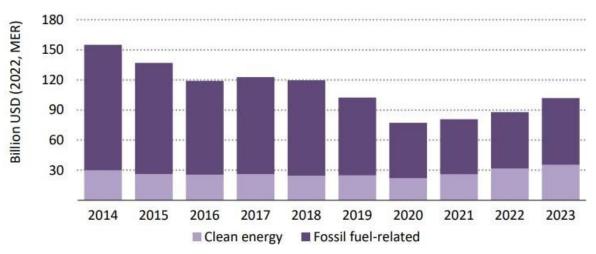


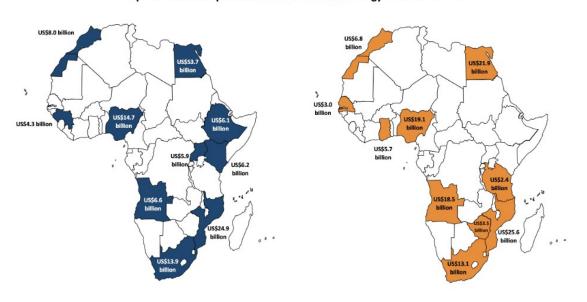
Figure 1.1 Energy investment in Africa by type, 2014-2023

Source: International Energy Agency. (2023). Clean energy investment for development in Africa

Challenges to increasing investment in domestic energy systems include a lack of bankable projects and the high cost of capital, which can be two to three times higher for renewable energy projects in Africa compared to advanced economies. This is due to the fact that around 21 African countries are also at high risk of debt distress, placing significant strain on public finances and state-owned enterprises (SOEs), which are often key players in the energy sector. Additionally, <u>rising interest rates across the continent have raised return expectations among investors</u>. For clean energy projects in particular,

this has led to disproportionately high expected returns, often exceeding those in advanced economies, reflecting the heightened risk perceptions in emerging and developing markets. As a result, these projects become less attractive to investors, further constraining the flow of capital needed to expand renewable energy infrastructure.

Countries such as South Africa, Kenya, and Morocco experienced a modest increase in investment for clean energy projects in 2023, particularly in solar, wind, and geothermal sectors, driven by improved investment conditions. Looking ahead, Kenya is expected to further expand its geothermal electricity capacity by 2025. More broadly, African nations, regardless of the size of their projects are working to harness their vast natural resources, including solar, wind, and hydro power, to advance sustainable energy solutions.



Top 10 African Recipients of Public and Private Energy Finance 2012-2021

The top ten recipients of public energy finance to Africa received U\$\$144.41 billion (73% of total public finance). The top ten countries that provided private finance accounted for U\$\$137.41 billion, (92%, of the total private energy finance).

Source: Carnegie Endowment for International Peace, 2023

Across the region, inadequate funding in the energy sector obstructs the successful implementation of climate strategies and limits the ability to adapt to changing conditions. Any transition to renewable energy must prioritise social and economic equity, ensuring that disadvantaged communities can access affordable and reliable energy sources.

Sustainability-focused climate policies must also address issues of accessibility and affordability, fostering a more inclusive approach to energy security that benefits all segments of society.

# **Kenya, South Africa, and Morocco:** A comparative analysis

#### **KENYA**

Kenya has made significant progress in advancing its vision of clean energy, with renewable sources now accounting for about 90% of its energy production, which includes a portfolio of geothermal such as the <u>Olkaria Geothermal Parkat</u> in the image below, being at the forefront, wind, solar, and hydropower resources. This energy mix positions the country as a <u>regional leader in climate action</u>, despite its exposure to droughts, floods and rising temperatures.





Photo credits: Osvaldo Coelho

As of February 2025, the country generated more electricity than it consumes, with an <u>installed capacity of 3,321 MW compared to a demand of 2,316 MW</u>, with approximately <u>9.7 million customers are connected to the national electricity grid</u>. However, electricity remains expensive relative to other African nations, and this has been driven by several

factors, including high costs associated with generation, transmission, and distribution, as well as limited investment in renewable energy.

Notably, about 30% of electricity is supplied by independent power producers (IPPs), whose contracts are often denominated in US dollars, meaning electricity costs rise when the dollar strengthens. On average, consumers pay 26 shillings per kilowatt hour, significantly higher than in neighbouring Tanzania and Ethiopia, where rates are 13 and 6 shillings, respectively, despite their more limited infrastructure.

Average Electricity Tariff Country (per kWh)	Government Subsidies	Dominant Energy Source	Role of IPPs
Kenya 26 shillings	Minimal	Geothermal, Wind	High
Tanzania 13 shillings (with subsidy)	Significant	Hydropower	Low
Ethiopia 6 shillings (with subsidy)	Significant	Hydropower	Minimal

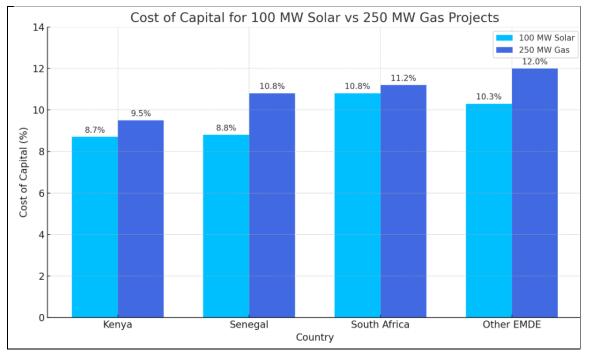
Besides having lower electricity costs, households in Ethiopia enjoy a more reliable power supply than those in Kenya, mainly due to the country's smaller transmission network and its significant reliance on hydropower for electricity generation.

In contrast, Kenya's high electricity costs are primarily linked to Power Purchase Agreements (PPAs) that Kenya Power signed with electricity generators years ago. These agreements often include steep wholesale prices, making it challenging to reduce retail electricity tariffs without risking financial losses for the utility.

With this in mind, <u>Kenya needs \$40 billion in investment over the next decade</u> to sustain its climate ambitions and this funding is essential to improving access to affordable, reliable, and secure energy, which continues to be a critical concern as noted above.

One of the primary challenges hindering the growth of renewable energy in Kenya is financial constraints. Limited access to local financing, coupled with high interest rates, makes it difficult to develop new renewable-energy projects. External funding from international organisations like the World Bank and the African Development Bank Group (AfDB) has been crucial in supporting these initiatives, yet it often falls short of covering the full investment needed for long-term growth. As a result, the East African country has historically financed its energy projects through a combination of public funds, climate finance, development finance, and commercial investments.

Weighted average cost of capital.



Source: The International Energy Agency (IEA)

Another significant obstacle is import dependency. The high costs associated with importing essential renewable-energy technologies, such as solar panels and wind turbines, drive up project expenses. This reliance on foreign equipment not only inflates costs, but also slows down the scalability of renewable initiatives, making widespread adoption more challenging.

The growth or expansion of renewable energy in Kenya is still hampered by regulatory obstacles. For investors and developers, bureaucratic inefficiencies, excessive red tape, and uneven policy execution at different governmental levels breed uncertainty. For instance, there tends to be frequent discrepancy between county-level land use planning and national renewable energy requirements, which results in inconsistent site approval decisions.

Developers are also frustrated with the Energy and Petroleum Regulatory Authority's (EPRA) tardiness in issuing Power Purchase Agreements (PPAs) and the fluctuating tariff structures for independent power producers. Sometimes agencies' licensing processes overlap, leading to redundant work and drawn-out timescales. When combined, these discrepancies cause project execution to be delayed and investor confidence in the development of large-scale renewable energy to be weakened. These regulatory challenges often delay project implementation and make it difficult to execute large-scale renewable-energy initiatives effectively.

In addition, land acquisition and community relations pose significant barriers to the development of renewable energy infrastructure in Kenya. Large-scale projects often face resistance from local communities due to fears of displacement, inadequate compensation, and a lack of meaningful consultation. These tensions are exacerbated by

the absence of clear, enforceable guidelines on benefit-sharing and the inconsistent application of the Community Land Act, which is meant to safeguard communal land rights. A notable example is the <u>Lake Turkana Wind Power project</u>, which faced legal challenges and community opposition over land rights and insufficient public participation. Although the project was eventually completed, it highlighted deep flaws in the land acquisition process and the need for more transparent, inclusive stakeholder engagement.

Similarly, a solar power project on <u>Wasini Island in Kwale County, part of the government's Off-grid Solar Access Project, was stalled due to disputes over land ownership</u>. Local communities were reluctant to release a two-acre parcel of community land for the project, as they wished to retain communal ownership, conflicting with the funding requirement for individual title deeds. This impasse underscores the critical importance of aligning land tenure systems with community expectations and ensuring thorough stakeholder engagement in renewable energy initiatives

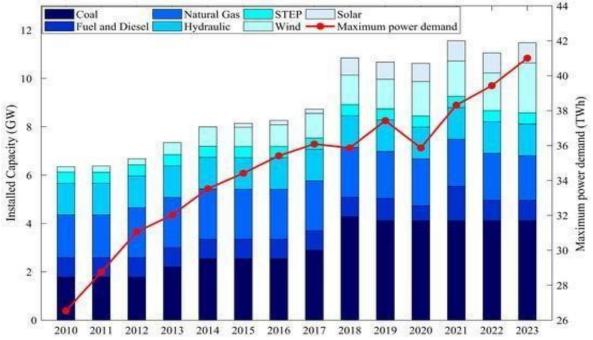
Finally, skill gaps in the renewable-energy sector pose a challenge to long-term growth. There is a shortage of locally trained professionals with the expertise needed to maintain, manage, and expand renewable-energy infrastructure. Investing in education and workforce training is essential to building a skilled labour force capable of driving the sector forward.

#### **MOROCCO**

Morocco has positioned itself as a regional leader in renewable energy, attracting significant investment and developing large-scale projects such as the <u>Tarfaya Wind Farm</u>, which is the largest wind farm on the continent, and the <u>Noor Solar Plant in Ouarzazate</u>, one of the world's <u>largest solarpower complexes</u> with a total investment of \$9.5 billion from multiple international institutions such including the World Bank, European Investment Bank, German Ministry of Environment just to mention a few. Despite these advancements, the country faces a dual challenge: it must meet its rapidly growing energy demands while reducing reliance on fossil fuels. Its geographical position in a climate-change hotspot makes it particularly vulnerable to extreme weather patterns, adding urgency to its energy transition.

Despite Morocco's significant progress in renewable energy, the country remains heavily reliant on coal. In 2023, coal accounted for 64% of electricity production, even though coal-generated electricity declined by 6.6% compared to 2022. Renewable energy sources contributed 21.7% to total electricity production, while electricity generated from fuel and diesel, despite a 58.6% yearonyear drop, still made up 3.8% of the energy mix.

Installed capacity by energy source in MW and maximum power demand in MW (2010–2023)

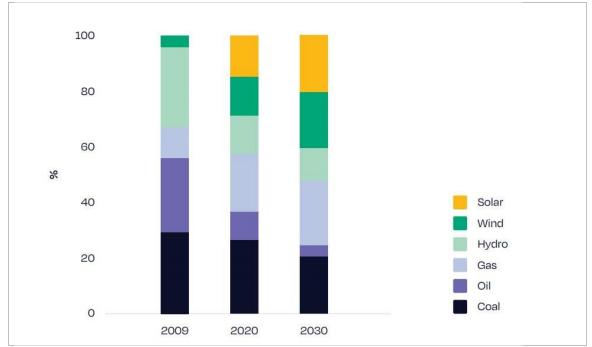


\* Source: Masrour, A., Haida, S., & Boudghene Stambouli, A. (2024). Morocco's energy transition: Achievements and challenges in the shift to renewables.

As the region's largest net importer of energy, Morocco recognises the need for a long-term energy strategy that balances sustainability with economic growth, and it has committed to a structured <u>energy transition plan</u> that prioritises renewable-energy investments and energy-efficiency improvements.

Earlier this year, the government approved \$32.5 billion worth of green hydrogen mega projects aimed at cutting industrial emissions, while also tapping into the country's vast solar and wind potential to produce low-cost green hydrogen, strengthening energy security and supporting economic development.



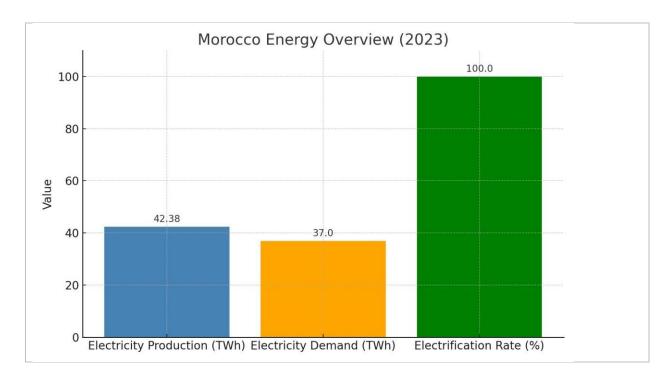


Source: Ministry of energy transition and sustainable development, 2024

To achieve its updated NDC targets, Morocco has outlined concrete <u>mitigation measures</u>, <u>investment programmes</u>, <u>and strategic interventions</u>, many of which are already in progress. These include the development of large-scale solar and wind energy projects, the implementation of energy efficiency measures across key sectors, and the rollout of green hydrogen initiatives. These efforts are supported by investment programmes aimed at mobilising both public and private capital, as well as strategic interventions such as policy reforms and infrastructure development. Together, these measures are intended to reduce greenhouse gas emissions, attract foreign investment, and create jobs in the growing renewable energy sector.

Beyond meeting domestic needs, the North African country has the potential to become a key electricity exporter. The global energy crisis, exacerbated by geopolitical tensions and rising gas prices, has made energy security a top priority for many countries. As a result, European countries are increasingly looking for alternative sources of affordable, sustainable electricity, a demand that Morocco is well-positioned to meet. Given its geographical proximity to Spain and abundant solar and wind resources, Morocco could emerge as a major supplier of clean energy, particularly green hydrogen, to Europe. However, it's not just Europe showing interest: several African countries are also looking to secure electricity imports from Morocco.

Morocco's 2023 Energy production, demand, and electrification rate.



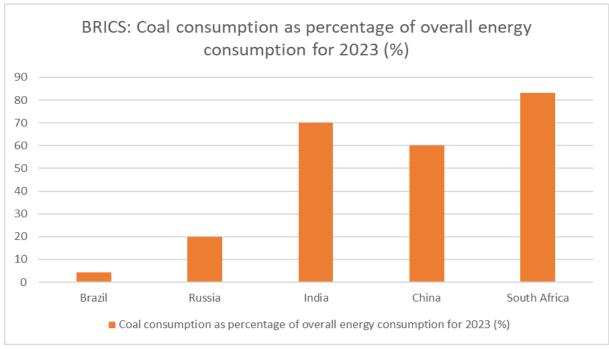
By capitalising on its renewable-energy potential and strategic location, Morocco could redefine its energy landscape. Expanding its clean-energy production, strengthening infrastructure, and enhancing regional co-operation could position the country as a renewable-energy hub, not just for Africa, but for the world.

The challenge now lies in accelerating the transition from ambition to reality, ensuring that Morocco's renewable-energy investments translate into tangible, long-term benefits.

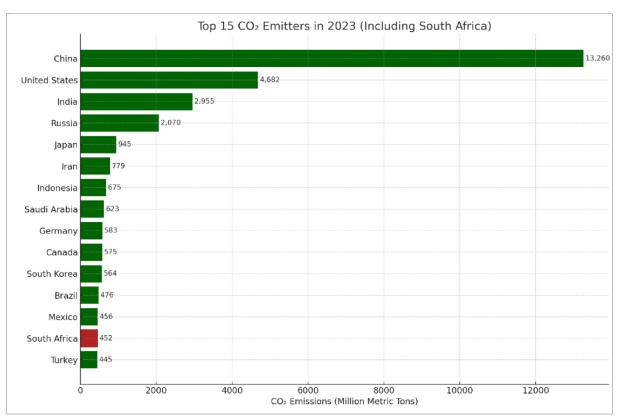
#### **SOUTH AFRICA**

Prolonged power outages, chronic underinvestment in the power sector, and a mix of transition related, social, and physical concerns are just a few of the urgent climate and energy challenges that South Africa is facing. The nation continues to rely heavily on carbon-intensive energy production, with coal providing about 80% of electricity through the state-owned utility, Eskom, making it the 14th largest carbon dioxide (CO<sub>2</sub>) emitter in the world as of 2024, with an annual production of about 405 million metric tonnes of CO<sub>2</sub>.

This dependence on fossil fuels highlights the pressing need for thoughtfully planned interventions to facilitate a fair transition, especially for communities, small enterprises, workers, and exporters who stand to lose the most from the trade and economic effects of decarbonisation.



**Source: Inclusive Society Institute** 



Source: Worldometers

To address these challenges, policies such as the latest <u>Integrated Resource Plan (IRP)</u> 2023 and the <u>Just Energy Transition Investment Plan (JET-IP)</u> have been introduced to facilitate a gradual shift towards renewable energy while minimising job losses in coaldependent communities. However, South Africa's energy transition is fraught with complexities. Eskom's ongoing financial instability and frequent power shortages underscore the tension between achieving climate goals and ensuring a reliable power supply.

As of 2024, South Africa's energy landscape reflects a complex interplay between its reliance on coal, efforts toward renewable energy adoption, and challenges in ensuring universal electricity access.

In 2024, South Africa's total electricity generation experienced a 2.7% year-on-year increase, with coal remaining the dominant source, accounting for approximately 87% of electricity production. This heavy reliance on coal underscores the country's ongoing dependence on fossil fuels for energy. In terms of the country's consumption, the country's electricity decreased by 4% to 195 TWh in 2023, continuing a downward trend observed since 2018 while access to electricity stood at approximately 87.7% in 2023, indicating that a significant portion of the population still lacks reliable electricity access.

Efforts to improve this rate are ongoing, with initiatives aimed at expanding infrastructure and integrating renewable energy sources. This raises a critical question. How can South Africa achieve a just transition away from coal while ensuring social stability, tackling poverty and unemployment, managing debt, securing energy supply, and promoting economic growth and development?

With the <u>planned decommissioning of several coal plants by 2030</u>, the urgency of this transition is heightened. The closures will have significant socioeconomic implications, particularly in coal dependent regions like Mpumalanga, where thousands of jobs are at risk. One potential strategy could be to use the <u>province's agricultural potential as an alternative economic driver</u>, creating opportunities for job absorption in farming, agribusiness, and agro-processing. This approach could help to mitigate job losses while promoting rural development and food security.

According to the <u>Climate Action Tracker</u>, the country's current policies and actions are rated as 'insufficient'. This rating indicates that substantial improvements are needed for South Africa's climate policies to align with the Paris Agreement's 1.5°C temperature limit. On its current trajectory, South Africa might not achieve the necessary emissions reductions to meet its NDC target range for 2030.

In contrast, Morocco's climate targets are rated as 'almost sufficient', suggesting that its policies are closer to being compatible with the 1.5°C pathway, though some gaps remain. Kenya's policies and its unconditional NDC target are rated as 1.5°C compatible, highlighting its strong climate ambition. However, there remains considerable potential for Kenya to pursue deeper emissions reductions across all sectors, particularly given its substantial renewable energy capacity.

## Policy lessons and the way forward

In their energy transitions, South Africa, Morocco, and Kenya all face formidable obstacles, but they also provide valuable insights. Although Kenya has made great progress in the field of renewable energy, intermittency management requires improved grid infrastructure. Morocco has been a leader in solar and wind development, but its ongoing reliance on coal highlights the need for system modernisation, better energy storage, and a phased transition. To address the crisis brought on by an excessive reliance on coal-fired power plants, South Africa must urgently diversify its energy mix.

Furthermore, for all three countries, the relationship between water and energy is crucial. Morocco's solar plants need a lot of water to cool and hydropower in Kenya and Morocco is susceptible to droughts. Adopting water-efficient technologies and integrated water-energy management are crucial to addressing this. In addition, there are difficulties in balancing sustainability and energy access, especially in remote areas. Morocco and South Africa should concentrate on lowering the cost of electricity and making it available to marginalised communities, whereas Kenya has increased access through decentralised energy systems. This can be done by reducing long-term electricity costs and promote environmental sustainability by leveraging their substantial renewable energy potential. Additionally, reforming energy pricing and subsidies to ensure equitable access for low-income households would alleviate the financial burden on marginalised communities.

Finally, regional collaboration is essential for advancing energy security and renewable energy development. Morocco has the capacity to export renewable energy to both Europe and Africa, while Kenya stands to benefit from deeper regional energy cooperation. South Africa, already a key player in the Southern Africa Power Pool (SAPP), plays a significant role in regional electricity trade and supply. Despite its high domestic demand, it has historically been a major exporter of electricity to neighbouring countries, and greater involvement in regional energy initiatives could further support the growth of sustainable and secure energy systems across the continent.

### **Expert Insights**

#### Mr Murefu Barasa -

Chairperson of the Kenya Renewable Energy Association (KEREA) & Managing Partner at EED Advisory (Kenya)

Kenya's Renewable Energy Paradox - Clean, Yet Costly

Kenya is often hailed as a renewable energy leader in Africa, with over 90% of its grid electricity sourced from geothermal, wind, and hydro power. But beneath this impressive statistic lies a stark paradox: Kenyan households and businesses continue to face high electricity costs and uneven access. Why is power so expensive in a country so rich in renewable resources?

In a conversation with Mr. Murefu Barasa, Chairperson of the Kenya Renewable Energy Association and Managing Partner at EED Advisory, I probed this contradiction and uncovered deeper structural and policy challenges that go beyond just generation.

"Electricity in Kenya is not subsidized," Barasa explained. "Unlike in Ethiopia or Tanzania, the market is more liberalized, and that impacts pricing for end users."

He clarified that while the centralized electricity mix is more than 90% renewable, Kenya's total energy consumption, which includes transport, cooking, and heating, is still dominated by biomass and petroleum. In other words, clean electricity is just one piece of a much larger, dirtier energy puzzle.

#### The Cost Isn't Just in the Generation

According to Barasa, the real bottlenecks lie in infrastructure and delivery. Kenya's aging transmission system is particularly vulnerable at the Sua chokepoint, where disruptions can paralyze the entire grid. "We need to strengthen the backbone of the system," he said, "and that includes smarter, automated distribution networks with technologies like smart meters."

Despite these issues, Barasa is optimistic. With greater investment in low-cost geothermal energy and transmission upgrades, Kenya can begin to lower electricity costs without compromising its climate goals.

#### **Community Resistance and the Land Question**

But technical fixes alone won't solve everything. Community tensions around land use have disrupted several major projects. Barasa cited the Loiyangalani wind project in Marsabit town and geothermal development near Maasai lands in Olkaria as cautionary tales. "Communities are often victims, but sometimes, resistance is stirred by misinformation or exclusion," he said. His advice? Meaningful consultation, fair compensation, and localized conflict resolution must become standard practice.

#### Skills and the 'Technical Assistance' Narrative

I also asked about the perceived skills gap in Africa's clean energy transition. Barasa didn't mince words: "Kenya trains engineers who go on to work for international utilities. We're not short on talent, we're short on targeted expertise in areas like managing variable renewable energy or battery storage." He warned against over-reliance on Western technical assistance, urging African governments and institutions to own the narrative and build domestic capacity.

Barasa closed with a sobering note: not all renewables are cheap, and poorly planned energy systems can actually drive costs up. "We must be cautious when stacking variable sources like wind and solar," he said. "System integration matters just as much as clean generation."

# Mr. Chigozie Nweke-Eze – Hydro-Energy, Infrastructure & Climate Change Expert (Morocco)

Morocco's Energy Journey Offers a Blueprint for Africa — But the Work is Not Yet Done

In a continent grappling with energy poverty and climate vulnerability, Morocco stands out as a leader charting a bold course toward a greener and more resilient future. In a recent discussion on energy transition and infrastructure in Africa, Mr. Chigozie Nweke-Eze an expert in hydro-energy, infrastructure, and climate change, highlighted Morocco's significant achievements, while also cautioning against complacency.

"Morocco is a continental front-runner," Nweke-Eze said. "It has shown political will and long-term vision in investing in renewable energy, particularly solar and wind. Projects like Noor Ouarzazate have become global symbols of what is possible on the continent." He noted that Morocco's ability to implement large-scale renewable projects, supported by enabling policies and strong institutional frameworks, sets it apart from many African countries still struggling with fragmented planning and low execution capacity.

However, Nweke-Eze also offered a critical reflection. "Morocco has made strides, but it must now focus on inclusivity," he said. "We need to ask: Are these projects reaching the most vulnerable? Are rural areas — the ones most energy-poor seeing real transformation?" He warned that even the best-designed infrastructure can fail to deliver justice if it reinforces existing inequalities or leaves communities behind. For Nweke-Eze, Morocco's story presents both a lesson and a challenge to the rest of Africa: coordinated planning, policy consistency, and investment in national capacity do vield results.

Yet he was clear that Morocco must go further, ensuring that its energy leadership is matched by local ownership, community participation, and transparent climate finance mechanisms. "We need to track where the money is going and who benefits," he insisted.

His message was clear: Morocco is not just a case study in renewable ambition; it is a platform for continental dialogue and cooperation. "Morocco can play a key role in fostering South-South learning across Africa," he said. "But the transition must be African led, rooted in local realities, and focused on both access and equity."

# Bhekumuzi Dean Bhebhe – Senior Advisor at Power Shift Africa (South Africa)

From Ambition to Action: Why South Africa's Just Energy Transition Is Stalling

South Africa's transition to a low-carbon economy is in trouble. Despite the promising vision of the Just Energy Transition Investment Plan (JET IP) and the Integrated Resource Plan (IRP), the country's move away from fossil fuels toward cleaner, more inclusive energy has been bogged down by financial bottlenecks, political incoherence, and a lack of grassroots participation.

In a recent interview, Bhekumuzi Dean Bhebhe, Senior Advisor at Power Shift Africa, shared compelling insights on what's going wrong, and what needs to change. His analysis paints a sobering picture of a transition that, while noble in its aims, is being undermined by global financing injustice, domestic policy fragmentation, and the exclusion of the very communities it seeks to uplift.

#### A Misunderstood and Uneven Transition

According to Bhebhe, the very idea of a "just transition" has not been fully embraced or properly adapted across Africa. Different countries have different relationships with fossil fuels, some are major producers, others are heavily dependent consumers. South Africa, as Africa's top emitter, is especially entangled in coal dependent systems of employment and power generation. This makes the transition not only a technical issue, but a deeply social one. In coal-reliant provinces like Mpumalanga, there is no clear roadmap for alternative livelihoods. Communities are being asked to support the end of coal without any viable economic replacement. "People will understandably push back when the only certainty they face is poverty," Bhebhe warns.

Globally, the energy shift is no less fraught. In 2023, more than 50 gigawatts (GW) of new coal power were approved, the highest since the Paris Agreement was signed in 2015. This trend undercuts the argument that coal is on the way out and makes South Africa's internal resistance to transition even more understandable.

#### **Climate Finance Without Justice**

A major barrier, Bhebhe argues, is the way climate finance is structured. Despite promises of support, most financing still comes in the form of loans, often at commercial rates adding to the debt burdens of countries already struggling under fiscal pressure.

"Financing a just transition through loans is unjust," Bhebhe says. Not only do these loans trap countries in debt, but they are also typically offered in foreign currencies like the U.S. dollar. This exposes governments to exchange rate volatility: a depreciating rand makes repayments more expensive, adding stress to national budgets and shifting funds away from essential services.

The solution? What Bhebhe calls "the dignity of finance", a shift toward grants, concessional loans, guarantees, and local-currency instruments that align with justice, not just returns. Without such reforms, the just transition will remain a rhetorical ideal rather than a lived reality.

#### Fragmented Institutions, Overlooked Communities

Beyond finance, Bhebhe highlights institutional incoherence as a second major barrier. The JET IP is a case in point, its implementation has been slow and plagued by a lack of interdepartmental coordination.

Overlapping mandates and unclear governance structures have resulted in delays and confusion, rather than action.

Meanwhile, affected communities and civil society groups have largely been treated as bystanders. "We talk about consultation, but we rarely see real participation," Bhebhe notes. This exclusion not only undermines the legitimacy of the transition but also squanders valuable local knowledge and leadership. Adding to the confusion is the absence of a clear national consensus on South Africa's future energy mix. Stakeholders remain divided on gas, hydrogen, green coal, and renewables. These disagreements slow down investment and deepen public mistrust.

#### Toward a Public-Led, People-Centerer Transition

What does a real just transition look like? For Bhebhe, it starts with reclaiming the public mandate. "We need to move away from this obsession with private-sector-led transitions," he asserts. "Public finance, public leadership, and public accountability are essential." Energy transitions, he argues, must be grounded in broader economic justice. That means tackling issues like tax reform, illicit financial flows, and the external debt crisis alongside decarbonisation. Crucially, Bhebhe calls for targeted investment in communities like those in Mpumalanga. Without real economic alternatives, jobs, retraining, infrastructure, the idea of a just transition will remain just that.

This work was produced as a result of a grant provided by the Africa-China Reporting Project at the Wits Centre for Journalism at the University of the Witwatersrand. The opinions held are those of the author.

#### **Extra resources:**

https://www.sciencedirect.com/science/article/pii/S0957178724001486 Kenya

file:///C:/Users/mandi/Downloads/Kenyas-Energy-Sector\_Challenges-and-Policy-Options.pdf Kenya

(challenges and opportunities)

https://iea.blob.core.windows.net/assets/aeadbc3e-5020-4c83-bcfe6a00d1aca49c/CleanenergyinvestmentfordevelopmentinAfrica.pdf Kenya

https://www.trade.gov/country-commercial-guides/kenya-energy-electrical-power-systems#:~:text=Kenya's%20energy%20mix%20predominantly%20consists,%2C%20HFO %20plants%2C% 20and%20imports. Kenya.

https://africa-energy-portal.org/news/morocco-advances-renewable-energy-goals-two-

new-solar-powerstations Morocco <a href="https://africa-energy-portal.org/news/morocco-">https://africa-energy-portal.org/news/morocco-</a>

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8\_hr\_63e55db63a .pdf?updated\_at=2025-03-

14T09:15:35.347Z Morocco