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Introduction

Africa's energy sector is ripe for investment, bolstered by a series of oil and gas discoveries alongside a growing appetite for renewable and green energy solutions. The continent remains well-positioned to leverage its abundant resources in the context of the global energy transition, although steps need to be taken to avoid the exploitative practices of the past. With this in mind, sustainability and community beneficiation have become high priorities for host governments and international investors alike.

It is difficult to discuss a sustainable energy transition in Africa without recognising the pressing energy requirements of many African countries, and we are seeing increased desire from governments to diversify their energy mix in a manner which enables industrialisation and the upliftment of the population as a whole. This approach has seen a raft of innovative energy strategies, ranging from the pursuit of green hydrogen to battery storage solutions, that showcase the continent's potential.

That is not to say that hurdles do not exist. Issues including infrastructure shortcomings, inaccessible financing, and the nuance of local business and political environments from an integrity and operational standpoint, remain key considerations. In particular, the liberalisation of regulatory and legislative frameworks is often perceived to be a key driver of development across the energy arena by investors, and we are starting to see how certain countries have sought to promote and incentivise - rather than obstruct - investment in their respective constituencies by adopting friendlier policies.

In this energy series, we unpack some of the key trends, opportunities, and challenges to consider when entering African markets:

01 - S-RM's Head of ESG and Sustainability, Natalie Stafford, examines the energy infrastructure challenges the continent must address to harness its potential for transitioning to green energy.

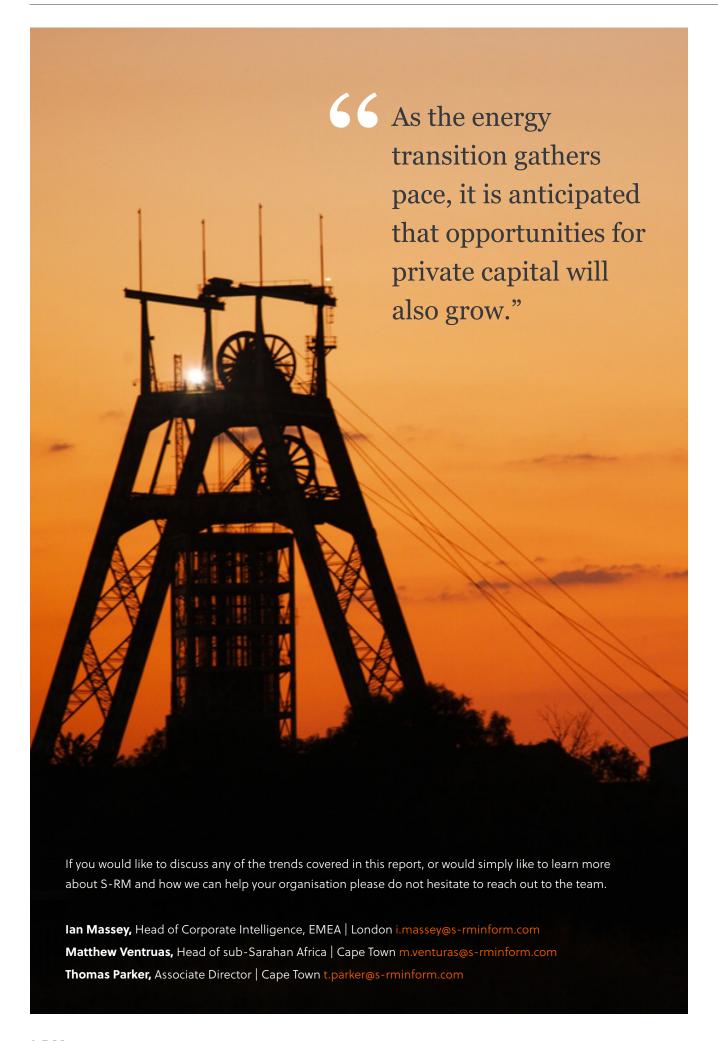
02 - Next, Thomas Parker, Associate Director, SSA, reflects on lessons learnt from the green hydrogen boom in Southern Africa.

03 - In the third article, Matthew Venturas, Head of Sub-Sarahan Africa, delves into the importance of maximising Africa's abundant natural resources when considering what a just energy transition could look like in the region, exploring a range of factors from favourable regulatory climates and local content requirements to the potential for disputes with host governments.

04 - and finally, Belén Satorre, Associate Director - ESG, asks if the African mining sector can deliver on its role in the energy transition without leaving local communities behind.

The insights shared in our report are all gleaned through S-RM's experience advising clients on the continent. We continue to work hand in glove with our clients to ensure they are armed with the intelligence to make informed decisions across a range of remits, whether this be conducting due diligence ahead of a potential acquisition, reviewing the operating and regulatory environment of a new market, or supporting in the development and implementation of ESG policies and best practice.







Backing Africa's energy transition:

Tackling the energy infrastructure deficit

Head of ESG and Sustainability **Natalie Stafford** examines the energy infrastructure challenges the continent must address to harness its potential for transitioning to green energy.

Africa has a massive and untapped potential for green energy generation. According to the International Energy Agency, the continent holds an estimated combined 60% of the world's best solar, hydropower, wind and geothermal energy sources. This is often pointed to as a significant potential contributor towards the global energy transition, as governments and companies seek homegrown renewable energy supplies to meet growing regulatory demands and maintain a stable and local source of power. But herein lies a twofold problem for the continent. Firstly, there is still insufficient investment in energy generation

projects on the continent. For example, Africa has 40% of global solar energy generation potential, but generates less than 1% of global production. Secondly, and relatedly, alongside any plans for energy generation, investors and governments need to take a serious look at energy infrastructure – both transmission and storage. There is no point in bridging Africa's energy generation gap unless there is also the infrastructure to support it at the same time.

Energy supply across Africa is intermittent, and a focus on renewable energy sources alone will not improve consistency of supply. The scale and geography of the continent mean a large amount of energy will be generated in regions often far from population or industrial centres where it is needed. Ironically even some of those areas with the highest concentration of energy transition related mining activities, like the DRC, are the ones facing the largest energy deficits. A glut of energy production is virtually useless unless it can be stored and transmitted. The lack of energy infrastructure hampers investment flows into energy generation projects.

And this in turn hampers wider economic growth and affects many of the other potential investments across the continent that private capital is waiting to flow into. Whether technology and data centres, or telecommunications or light manufacturing – they all need efficient facilities and will be reliant upon a reliable energy supply.

The challenge of energy infrastructure is starting to be noticed. At Africa Climate Week in 2023, the COP28 presidency announced a USD 4.5 billion commitment to developing clean power in Africa – critically part of it was targeted to address key energy transition barriers, including the continent's infrastructure deficit.

But increasing energy generation and access requires more than just funding. Policy and institutional challenges and capability gaps need to be overcome, and sustainability and ESG considerations need to be factored into every project to avoid falling foul of regulatory or reputational issues.

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Key challenges facing Africa's energy infrastructure

An opening up of transmission markets

Of all energy investments into the continent in the last decade, it is estimated that only 0.5% went to transmission networks. One of the biggest challenges is the presence of vertically integrated state utilities which have traditionally dominated African economies but have largely been a watchword in inefficiency and corruption. The most effective tool to encourage inward investment into transmission is the decoupling of these utilities. Those countries best able to attract investment are those who have made a head start in liberalising their markets and reviewing their regulatory environments to make them more attractive investment environments.

South Africa has already embarked on the liberalisation

of its energy market and, along with Namibia, it is no surprise that they are seeing some of the biggest investments into not just energy generation, but also infrastructure. Other countries making notable progress include Morocco and Kenya. Already, this is attracting the interest of development finance institutions (DFIs).

It has been estimated that Africa needs GBP 50 billion of annual investment if it is to reach universal electrification by 2050. But this investment needs to be appropriately scaled. Everything from off grid solutions to large-scale main grid infrastructure development, including those which cross borders, needs to be on the table, some of which can be achieved through innovative forms of finance. Lower cost projects not connected to the grid are, for example, generally easier for private capital to be deployed. These projects often have the potential to scale significantly and returns can be greater, but they attract currency risk for investors with revenue usually generated in the local currency. Larger scale projects on the other hand can struggle to attract the requisite funding. In both cases the answer falls to blended finance structures, still largely reliant on DFIs and other concessionary capital. As the energy transition gathers pace, it is anticipated that opportunities for private capital will also grow.



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Some of the most interesting solutions lie in 'electricity power pools'. Five such regional pools already exist across the continent, theoretically allowing areas to export surplus power to neighbouring regions affected by chronic power shortages. Again, these pools are hit by the challenges of lack of infrastructure and maintenance.

The members of the power pools are also predominantly traditional government utilities, which struggle to attract investment due to inefficiencies and long development cycles. There is talk of an even larger grid extending across 12 African states, from South Africa right up to Niger and Mali. But in reality this requires not just investment into sophisticated grid technology and storage, but political agreement and regulatory alignment between respective governments. Neither will be easy to achieve and certainly won't be having any material impact on the continent's energy infrastructure any time soon.

Batteries as a viable storage solution

Some of the biggest renewable opportunities in Africa lie in wind and solar. Unlike the often large and disruptive infrastructure projects associated with hydropower and geothermal, wind and solar energy are comparatively lower cost, cleaner and quicker to get up and running. Supplies are potentially bountiful, particularly in northern and eastern Africa for wind, and desert geographies like North Africa, Namibia and the Sahara for solar, but will always be intermittent. Rather than reverting to traditional energy sources during their down time, it makes much more sense to focus on building storage capacity to balance supply and demand.

Battery energy storage solutions (BESS) are considered the key technology to driving forward Africa's storage capacity. BESS functions like a battery in collecting energy from wind or solar panels, or from the electricity network, storing surplus power when electricity is being generated and then drawing from the electricity stored when the system is in deficit. These are electrochemical infrastructure assets comprising lithium-ion batteries. BESS is built into some solar and wind projects, and there are already some large BESS either under construction or already built. Perhaps best known is the Kenhardt BESS built

by Scatec to provide 225MW of storage capacity to the South African national grid, with similar projects expected in Mozambique and Senegal, with the latter closest to completion in 2025.

In late 2023 there was welcome progress in hastening investment in Africa's energy storage when the global BESS Consortium was announced. This group of 11 countries, including Egypt, Ghana, Kenya, Malawi, Mauritania, Mozambique, Nigeria and Togo, committed to expand the use of BESS in low- and middle-income countries. All participants have agreed to reach a goal of 5GW of BESS by the end of 2025. Member governments will be supported in their objectives by a range of international partners providing funding and technical assistance and it is intended that the 2025 goals will offer a roadmap for more ambitious targets in future years.

Yet, there is still not enough BESS, even at the tendering and feasibility stages, to meet the current pipeline of storage demand in Africa. Challenges persist around costs, supply chains and sustainability.

At this stage, projects with a battery component still require either a high tariff for the power, or subsidies to keep the tariff affordable. A recent study by the International Institute for Sustainable Development on BESS in South Africa, highlighted how even in this country, considered the most advanced in its BESS across Africa, cost, or access to affordable capital, is still a prohibitive barrier for investors. The cost of batteries themselves is gradually falling. Lithium-ion battery costs themselves have fallen by 90% since 2010. Costs are expected to be competitive by 2030 at around USD 80/kwh, but this is still some way off.

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A BESS supply chain presents a unique challenge for Africa, but it is one that will have to be tackled, given the domestic manufacturing industry for batteries in Africa is nascent at best, and even then is focused on lead rather than lithium batteries. Any attempt to localise production would need to be a continent-wide priority, but there is no indication of an appetite for this. In the meantime, BESS projects in Africa face stiff competition from other larger and more developed projects elsewhere in the world for a limited resource that many are seeking. Jurisdictions with more developed regulation and larger projects are at the front of the queue for sourcing, resulting in uncertainties around delivery and longer lead times for African projects. Geography causes similar practical challenges. Many BESS projects in Africa will be in more remote locations, which creates obstacles for repairs or replacement, and manufacturing warranties are more limited for those projects further from a hub. This can make the risk of an Africa project from a supplier and financier perspective prohibitively high.

Batteries also pose significant sustainability challenges. Whilst ultimately supporting the energy transition and drive to net zero, paradoxically they rely on the extraction of lithium, a usually water-intensive process known to result in GHG emissions, biodiversity loss and water pollution. Localised social issues are also associated with extraction – from human rights abuses and child labour in the DRC, to infringements on the rights of indigenous peoples in Argentina.

Whilst ultimately supporting the energy transition and drive to net zero, paradoxically [batteries] rely on the extraction of lithium, a usually water-intensive process known to result in GHG emissions, biodiversity loss and water pollution."



Additionally, there is no clear consensus on end-of-life management and policies for batteries. There is currently no lithium-ion recycling facility in Africa so if batteries are to be disposed of safely there are significant fees associated with export, as well as logistical challenges of how many of these batteries can be transported on one vessel, in addition to health and safety issues and fire hazards. If energy infrastructure in Africa is to meet its objectives and do so sustainably, plans and policies will need to be put in place to consider all aspects of the lifecycle of this infrastructure.

Governmental barriers persist

The development of energy infrastructure is still at a comparatively early stage in Africa, so it is perhaps unsurprising that there is a lack of regulations or policies in this area. But this creates significant uncertainty for developers seeking financing. It is hoped that international and multilateral support, such as through the BESS Consortium, will help to push this up the agenda and encourage policymakers to develop clear, consistent and supportive regulatory frameworks to enable investment. There are early models for success where a government prepared to reform can attract the support it needs, whether through DFIs, private financing or public-private partnerships. Quick wins include the streamlining of permitting processes, quicker tendering processes, subsidies or tax breaks where appropriate, multilateral engagement to consider resource pooling, and a longer-term view on modernising grids. Even where these plans cannot be put in place yet, policy roadmaps would go some way to showing investors which governments are taking the opportunity seriously and where they should be allocating their capital.

Sustainability is a core consideration

The regulatory and reputational scrutiny of energy infrastructure investments in Africa is now a significant part of the decision-making in any project. This is particularly salient when multilateral organisations are leading the investments, with experienced ESG teams scrutinising plans, programmes and standards. We know from our experience working on investments across the continent that it is these (high) standards which drive the approach of partners and private capital as well.

Any energy infrastructure project will have an immediate and significant impact on its surrounding environment and ecosystem. Environmental degradation is virtually





inevitable depending on where projects are sited and biodiversity is going to be impacted, just at a time that requirements to tackle this part of the Environmental pillar of ESG are growing, with the new Taskforce on Nature-related Financial Disclosures (TNFD). For larger projects, there may be community displacement, or the impact on the environment can trigger social unrest. If the developer has failed to obtain the necessary social licence to operate, unresolved ESG issues left unchecked can drain time, money and good will from a project initially intended to be of benefit to the community.

The supply chains for energy infrastructure projects will be expected to comply with high ESG and ABC standards, specifically the level of rigour expected under the forthcoming CSDDD (Corporate Sustainability Due Diligence Directive). European investors will fall under the CSDDD and will be placing supply chains under scrutiny on both environmental and human rights grounds. Battery mineral supply chains are particularly vulnerable, where the rush for minerals, in often challenging geographies, has resulted in serious concerns around corruption, land degradation and human rights abuses, including on the African continent itself.

There are a number of ESG standards and frameworks to be considered for energy infrastructure projects. The most relevant will be those focused on the sector itself, to account for its unique ESG challenges. For example, the Global Battery Alliance recommends four areas for cooperation and consensus: harmonisation of due diligence and voluntary standards; harmonisation of the whole value chain to reduce material footprint; financing of the sustainable scaling of critical minerals value chains; and, the social and environmental licence to operate as a core principle of any project. But all this is still voluntary. It will be down to investors and developers themselves to ensure their projects support energy access and decarbonisation, as well as sustainability.

Conclusion

Africa faces a unique challenge. It has to simultaneously improve access to energy continent-wide, whilst also prioritising decarbonisation. This is a tough ask. But with the right approach the continent can look to bridge the enormous gulf between energy potential and energy generation. Energy infrastructure needs to be considered right alongside any energy generation project. The challenges for infrastructure are more complex and the funding hard to obtain. This necessitates not just policy and institutional support from the jurisdictions in which they are to be located, but also multilateral support, particularly where there is technical expertise, ESG experience or concessionary funding available.

Article by Natalie Stafford

Head of ESG and Sustainability





Thomas Parker, an Associate Director on S-RM's sub-Saharan Africa Corporate Intelligence team, reflects on lessons learnt from the green hydrogen boom in Southern Africa.

Southern Africa has proved fertile ground for the development of green hydrogen. An abundance of renewable energy sources, an international market eager to invest in clean energy, and a host of local governments in need of such investment, have driven the development of Southern Africa's green hydrogen sector forward at a rapid rate, with Namibia, South Africa and Mozambique emerging as the region's leaders.

Of the three countries, Namibia has moved the fastest, buoyed by investment from the European Union, Germany and the Netherlands. The country currently has eight projects at various stages of development, led by a EUR 10 billion Germany-backed project set to begin construction in early 2025. South Africa, equally endowed with the renewable energy sources needed to produce green hydrogen, is not far off this mark. It too has recently received investment grants from the European Union and has several projects underway, although most of these are still in the planning stage. While Mozambique still has its hands full with the development of its abundant gas reserves, it has signalled its openness to investment in green hydrogen, and has recently announced its first project with a British energy firm. All three countries have hardwired green hydrogen into their future energy mixes by working it into their official energy transition strategies, and it is likely that other countries in the region will follow suit, particularly considering the acute energy shortages in neighbouring countries like Zambia and Angola.

These developments have unfolded at pace, with the most significant of them occurring over the past 12 to 24 months. It is not surprising then that friction points have begun to show, which could prove defining for the sector's future development. Four of these areas are discussed here, informed by our recent experiences of guiding investors through their entry into Southern Africa's green hydrogen market.

Regulatory framework in flux

The formulation of regulatory frameworks for the governance of green hydrogen has struggled to keep up with the speed of development. Barring Mozambique, where the sector is still nascent, investors and developers have been pushing local governments for muchneeded certainty on this front in order to reassure their stakeholders. While Namibia and South Africa have set the design of these frameworks in motion, progress has been hampered by political in-fighting over the direction of energy policy and by sea changes in both countries' political leadership.

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In parallel to its promotion of green hydrogen, Namibia has been marketing its oil and gas reserves with equal tenacity following several major discoveries in the Orange Basin over the last two years. This is pulling policymakers in two directions as they face pressure to bring clarity to the regulation of production, given the promise of first oil. The sudden death in February 2024 of Namibia's erstwhile president, Heige Geingob, following nine years in power, has also brought uncertainty to the direction of policy. The development of green hydrogen was a personal vision of Geingob's, and he was instrumental in bringing international partners and backers to the table. His death created a leadership vacuum in the country, which will only be filled once national elections take place later this month. Geingob's nominated successor within the governing party is noted for her conservative political stance, which may affect the momentum of green initiatives should she be elected.

South Africa has similarly been side-tracked by the demands of its oil and gas sector, which currently does not have the same momentum as Namibia's, but has long held the interest of international and local investors. A new bill to bring a necessary separation of the regulatory frameworks for the country's mining and oil and gas sectors has kept policymakers occupied for the better part

of the last five years, and industry pressure is high as the bill edges closer to the finishing line. This is unfolding in the context of a dramatic political shift in South Africa, as the country's liberation party experienced its first electoral loss since coming to power, and was forced into coalition in July 2024. While this has given more business-friendly parties a seat at the table, policy development has been slow in the wake of this transition, and investors are on alert for signs that the ideologically opposed coalition partners might not play well together.

In the absence of a clear regulatory framework for green hydrogen, investors we have advised have taken solace in the robustness of both Namibia and South Africa's broader legal frameworks. Both countries have balanced constitutions, and elements relevant to the development of any project – such as contract law – are well-catered for and enforced through an independent judiciary. For the time being, host governments have been turning to existing regulations for their better-established traditional energy sectors to chart a course forward for green hydrogen.

Pick your partners

One element of the regulatory environment that often raises questions from investors is local content. A key pillar of the policy agendas of both Namibia, South Africa and Mozambique's governing parties has been the increased participation of previously disadvantaged groups in key sectors of the economy. Debate as to the degree of participation is a common point of tension between these governments and foreign investors, with politicians often campaigning for more stringent regulations in the run-up to elections. In reality, none of these governments have legislation that definitively requires the participation

What is green hydrogen?

Green hydrogen is the clean energy source drawing increasing interest from governments as they seek to meet decarbonisation goals. It is produced through the electrolysis of water using renewable energy sources like wind and solar power, making countries rich in these resources ideal destinations for green hydrogen projects. Although it is still in the early stage of commercial adoption, green hydrogen is expected to play a critical role in decarbonising heavy industry, fuelling transportation, and power generation.

of local companies in energy projects, but investors are frequently advised to incorporate these partners to future-proof their investments.

The landscape of local partners for green hydrogen projects is a patchwork that is still taking form. While it includes players with established track-records in traditional energy projects who are looking to diversify their portfolios, it has also attracted lesserknown players looking to capitalise on the boom. The region's local content policies have faced criticism in this regard, particularly for their vulnerability to exploitation by politically connected actors. Practices such as the acquisition of state licences by local companies with little to no track-records, and the recommendation by government officials of local partners closely linked to them, are known to have occurred in the traditional energy space, and have been attempted in the green energy space too. The track-record and political network of a proposed local partner requires careful scrutiny, particularly when that partner will play a role in the project's government relations.

The landscape of local partners for green hydrogen projects is a patchwork that is still taking form."

Beyond local participation, the capacity of operational partners and suppliers warrants consideration too. Both Namibia and South Africa's rail networks are entirely controlled by rickety state-owned enterprises, established during phases of state-led development and kept alive as a policy lever to boost local employment. South Africa's freight rail operator has been hamstrung by underfunding and corruption under its former president, which has resulted in significant infrastructure maintenance issues over the last decade. Last year, South Africa's main export terminal exported its lowest levels of product since the early 1990s due to the rail operator's lack of capacity, and Namibia's rail operator has been

operating at a loss since at least 2011.

Under pressure from investors, these issues have galvanised stakeholders into action – South Africa is set to open its rail network for private operators by the end of this year, and a network of private road logistics companies have sprung up in Namibia to address the capacity deficit.

Community voices

Southern Africa is a large area geographically, rich in sources of renewable energy such as wind, sun and hydropower. It is also host to a variety of fragile ecosystems, and a large rural demographic hold claim to tracts of land through land restitution policies. Navigating access to land, and the social and environmental impact of an energy project, is a balancing act that requires careful engagement with multiple stakeholders, often with different sets of priorities.

In 2022, oil and gas supermajor, Shell, had its exploration rights for an oil block off the southern coast of South Africa revoked following a legal challenge by a group of local environmental organisations. The court determined that the company had not engaged adequately with local communities or properly considered the environmental consequences of its exploration activities. The ruling was a watershed moment for environmental groups in South Africa, and has empowered similar groups across the region. The widespread media coverage of this event also placed these issues firmly in the public's consciousness. A year later, one of Namibia's foremost green hydrogen projects began to face public opposition for its proposed development in a national park. Local environmental groups have argued that the development will threaten the biodiversity of the park, and there are suggestions that the project was not initially approved through appropriate government channels. The developer has taken these objections seriously - it is in the process of conducting a full environmental impact assessment, and has broadened the group of stakeholders it is engaging with. Both of these cases highlight the need for a community to secure the social licence to operate before they can really start developing any of these opportunities.



Water scarcity

The significant fresh water requirements of green hydrogen production are also relevant here. Both Namibia and South Africa are water-scarce, with the region as a whole experiencing one of its most severe droughts between 2018 and 2021. This threatened food security throughout the region, and significantly impacted electricity production in countries reliant on hydropower, the effects of which are still being felt today. Developers have turned to desalination and groundwater solutions, but these sources come with their own sustainability concerns. Desalination plants are energy intensive, and can have an impact on marine ecosystems through their intake of seawater and emission of brine waste. Groundwater, on the other hand, is scarce in arid regions, and its use risks threatening the water source of communities in a large geographical area. These issues are emerging just at a time when biodiversity and water security are moving up investor agendas with a slew of new reporting requirements on the horizon. As the region starts to see its first green hydrogen projects become operational, the impact of any solutions will need to be carefully considered.

Conclusion

The development of green hydrogen in Southern Africa stands at a crossroads where immense potential intersects with significant challenges. The region's ability to harness this opportunity will depend on regulatory advancements, community engagement, and sustainable resource management. With careful navigation of these complexities, Southern Africa can position itself as a key player in the global energy transition.

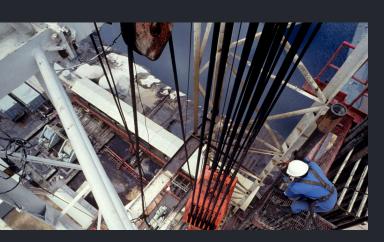
Article by **Thomas Parker**

Associate Director, Corporate Intelligence

Balancing the scales: Oil's role in Africa's just energy transition

Matt Venturas, the Head of S-RM's sub-Saharan Africa Corporate Intelligence team, dives into the importance of maximising Africa's abundant natural resources when considering what a just energy transition could look like in the region.

Fuelled by a combination of diminishing returns, security concerns, and mounting public and investor pressure, African states and the international oil companies operating therein have been actively seeking ways to diversify their energy mix with renewable options. In the past two years, we've seen a series of oil supermajors exiting or downsizing their onshore investments on the continent, which has created room for smaller independents to explore assets previously unavailable to them. This, alongside new discoveries promising significant outputs, has reshaped the African oil and gas landscape as we know it. While the emphasis on greener solutions remains high on the agenda, the conversation has



turned to how African governments can maximise their abundant natural resources to ensure economic upliftment – a key factor when considering exactly what a just energy transition looks like in Africa. These opportunities, however, are not without challenges, and any investors entering new markets should do so with their eyes open to potential issues related to partners, local regulatory and political environments, and the likelihood of disputes down the line.

The case for oil and gas in Africa – an evolving landscape

A contentious topic emerging from successive COP summits is the extent to which the global phasing out of fossil fuels factors into the United Nations Paris Agreement goals. It is generally accepted that such a transition will be necessary in order to meet the Agreement's climate targets; however, with commentators noting that Africa will potentially be a leading oil and gas producer in the coming decade, many governments seem inclined to cash in on their untapped resources. Despite the anticipated focus on cleaner energy, it was telling to see oil and gas taking centre stage at Africa Energy Week hosted in Cape Town in November 2024, and this was swiftly followed by African governments publicly voicing their intention to pursue new exploration and production opportunities at COP29. The Namibian government contingent were particularly vocal in their intent to explore and develop oil assets in the Orange, Namibe, Walvis, and Lüderitz basins in the anticipation of significantly increasing the country's gross domestic product. In mitigation, Namibian delegates reiterated their dedication to pursuing more sustainable oil production – but the practical implementation of such an undertaking remains to be seen.

In addition to Namibia, Angola continues its resurgence as a desirable exploration destination – in part buoyed by the imminent privatisation and perceived growing competence of state oil company, Sonangol, and a series of attractive upstream opportunities and flexible licensing arrangements. Many existing players have either retained or extended their presence in country, and several first time entrants are looking to gain a foothold. In Nigeria, we've seen a gradual exodus of oil majors like Shell,

Exxon Mobil, and TotalEnergies from onshore oil blocks in favour of offshore opportunities. While the latter equates to more capital-intensive exploration, it is perceived by many to be a safer bet in light of rising community tension and security concerns in the Niger Delta. This has opened the door to onshore acquisitions by many indigenous oil firms and smaller independents, who ostensibly believe they have the capabilities to navigate this complex landscape and achieve sustainable and significant growth in the oil and gas industry.

Market commentators and industry experts have also posited that oil and gas production will be central to the future industrialisation of many African countries, supporting in bridging the energy deficit and serving as a catalyst for much-needed economic upliftment for a growing population. Given Africa's relatively negligible contribution to global emissions, the desire to capitalise on the continent's resources by host governments and international oil companies is an understandable one. In the coming years, it is anticipated that Africa will solidify its status as a leading oil and gas exploration and production destination, as a combination of new licensing rounds and - in some instances - investorfriendly regulatory reforms, come to the fore. In addition to those already mentioned, North African players Egypt, Libya, and Algeria; in addition to East, Central, and West African markets like Tanzania, Uganda, Mozambique, Senegal, Gabon, Republic of Congo, and Sierra Leone, to name a few, all look set to develop their oil and gas assets.

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Local content as a catalyst for economic upliftment

Many commentators would argue that African countries have long been reliant on the technical expertise and capital injections of foreign investors entering their markets. One of the more recent positive developments in the African energy industry, however, has been the push towards formalised local content policies aimed at increasing the direct benefit of local companies and communities. For some time, Nigeria has led the pack on this front. We've seen the impact of mandated local content requirements prioritising not only local ownership and operations, but also the facilitation of skills transfer and local stakeholder engagement throughout the oil and gas supply chain. Indigenous oil, gas, and industrial companies like Seplat Petroleum, Chappal Energies, and Dangote Group (which operates a refinery) have emerged as veritable local success stories, and other countries like Uganda and Senegal have sought to replicate this success, often in collaboration with their more experienced Nigerian counterparts.

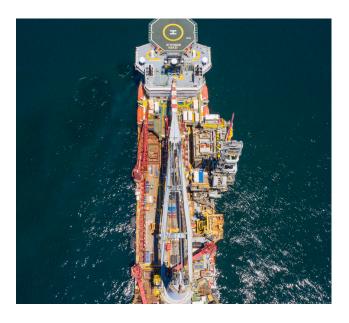
Given the scale of oil and gas activities in Africa, the prioritisation of local content policies will remain central to any economic growth and sustainability agendas. Such policies are not without their challenges, though. Investors partnering with local firms need to ensure



conducted their due diligence on any potential partners, and possible changes in regulation that may impact their operations down the line.

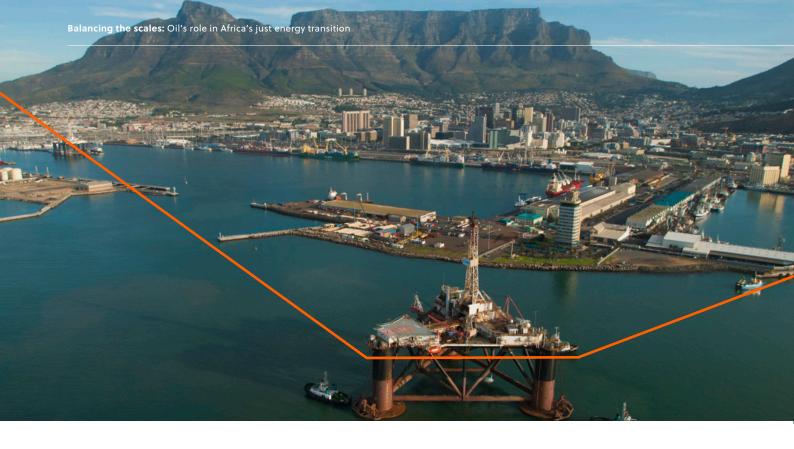
Moving the goalposts

Without derogating from the importance of local content, it is pertinent to note that oil and gas matters comprise a significant portion of investor-state disputes in Africa, underlying the importance of understanding local environments and counterparties, including key stakeholders in government. A review of these disputes provides a cautionary tale for any investor to take heed when entering these markets. Energy deals on the continent are typically high stakes ventures and despite parties' best intentions at the time of entering into arrangements, they are often subject to both internal and external factors like economic fluctuations, political instability, and other operational challenges - leading to disputes. In the last two years or so, we have seen numerous instances of government intervention scuppering deals and denting investor confidence in the region. Notable instances of this can be seen in Chad, where the government unilaterally nationalised Exxon Mobil's assets and exploration permits after a sale had already been agreed; and in South Sudan, where Malaysian state-owned energy company Petronas has commenced legal proceedings in response to the government's decision to block the sale of its assets in a deal reportedly valued in excess of USD 1 billion. In the latter instance, the South Sudan national oil company, Nile Petroleum Corporation, effectively seized ownership and operations of the assets.



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Well-informed selection of local partners is one avenue available to investors looking to shield themselves from political infighting and shifting government agendas, but it is far from foolproof. Governments regularly provide investors with a pre-selected list of local partners, often with links to influential figures and concealed beneficial ownership. This in itself can prove a fertile breeding ground for corruption and clientelism, dependent on the jurisdiction and parties involved. As such, it is critical that foreign investors considering opportunities in the African oil & gas sector carefully vet their potential partners. Without a comprehensive understanding of the political links, commercial track record, and allegiances of these partners, foreign investors run the risk of becoming mired in disputes post-investment. While pre-investment due diligence is a crucial way to reduce investment risk, disputes can arise for a range of reasons post-investment. These can include, for example, changes in government or other political shifts which leave either foreign investors in general or specific actors out of favour; project delays and cost overruns; or a deterioration in relations between a foreign investor and their politically connected local partners. When the prospect of an investor-state dispute looms, it is always preferable for the investor to resolve the matter without resorting to arbitration. Successfully doing so requires a detailed understanding of the genesis of the dispute, the key government stakeholders involved,



and the common ground between the disputing parties. Equipped with a robust understanding of these factors, an investor can go to the negotiating table with the local government confident in their position and maximise the chances of securing an amicable resolution as quickly as possible.

Inevitably, not all investor-state disputes can be headed off at the pass, and in some cases foreign investors are forced to resort to arbitration in order to protect their investments or recoup losses. While no investor entering a project hopes to end up in this position, it is prudent for them to be aware of the risk and – where a dispute cannot be resolved amicably - to equip themselves with the facts necessary to navigate the dispute successfully. During arbitration, this can include gathering evidence on key points of fact to demonstrate the unjust expropriation of assets or revocation of licences, or the role of government actions in undermining a project. Long before any award is rendered, investors should have a clear understanding of their enforcement strategy, including both the assets against which they intend to enforce and any pressure points which they can leverage to procure a settlement. By ensuring that they have a full understanding of the facts on the ground as soon as it becomes clear that a dispute is inevitable, investors can control their costs while maximising the prospect of successful recovery.

Conclusion

Notwithstanding the challenges apparent across the diverse African oil and gas sector, energy spending looks set to increase on the continent. Figures published by the International Energy Agency suggest that of roughly USD 110 billion of investment earmarked for Africa, approximately USD 70 billion will find its way to fossil fuel supply and power. The responsibility to ensure that the abundant opportunities are actualised sustainably lies with both public and private stakeholders, but there is increasing optimism that progress is being made.

Article by Matt Venturas

Head of sub-Saharan Africa, Corporate Intelligence





Belén Satorre, Associate Director, ESG, asks if the African mining sector can deliver on its role in the energy transition without leaving local communities behind.

Mining has long been a cornerstone of Africa's economic development, providing employment and contributing significantly to national revenues. The impact of mining activities on local communities ranges from environmental degradation to health risks, social unrest, economic inequality, and threats to cultural heritage. This is reflected in the emergence of new corporate roles in the larger mining firms involved, focused on community engagement, resilience, and support.

However, there is still a gulf between corporate decision-making and the communities on the ground who bear the brunt of the impact. This dissonance is reflected in some of the mining industry's largest gatherings too.

Each year while the African Mining Indaba takes place, the Alternative Mining Indaba (AMI), a yearly gathering of communities, civil society organisations, and faith-based groups worldwide discuss emerging issues for those communities impacted by mining activities.

This year's AMI is organised under the theme, 'Energy transition for who? The critical question of our times!'. In the context of climate change, 'Just Transition' is a key tool to ensure that the shift towards a climate-neutral economy happens in a fair way, leaving no one behind. For African mining communities, this concept carries profound implications, given the sector's pivotal role in the continent's economy and its significant environmental and social footprint. As the world moves toward cleaner energy, addressing the Energy Transition's unique challenges, from funding gaps to policy implementation, or mining legacy issues remains key to guaranteeing a 'just' transition for all, but especially those communities most affected.

Here we address four of the most significant issues challenging the notion of a just transition for Africa's local mining communities: inequitable access to energy, environmental restoration, organised crime and social justice and inclusion.

Supporting an equitable access to energy

At the 28th UN Climate Change Conference (COP28), governments agreed to triple global renewable energy capacity by 2030. However, a successful transition to renewable, low-carbon energy requires significantly more minerals like copper, lithium, and nickel - all found in abundance in Africa. But, how can we ensure that essential mining activities are carried out with respect for and protection of their communities? For many African communities, the conversation around a just transition must address the critical issue of unequal access to energy. By 2030, an estimated 660 million people will still lack electricity, with 85% residing in sub-Saharan Africa. This disparity has profound implications for mining communities, especially those in remote regions. Despite being surrounded by energy-intensive mining operations, they often lack even basic access to reliable electricity. Currently, the intermittent access or absence of electricity in these communities forces reliance on polluting and hazardous energy sources like diesel generators, kerosene lamps, and firewood. Artisanal miners often resort to these unsafe practices, such as burning fuel to extract minerals, which heightens health risks and environmental damage.

66 The cost of extending power infrastructure to remote areas is often prohibitively high for governments, which not only deters private investment, but also means that when it does come in, the focus will be purely on the mine operations themselves, rather than any surrounding community."

Several factors contribute to the uneven progress in energy access across Africa, including infrastructure limitations, financial constraints, and policy gaps. The cost of extending power infrastructure to remote areas is often

prohibitively high for governments, which not only deters private investment, but also means that when it does come in, the focus will be purely on the mine operations themselves, rather than any surrounding community. Most existing power generation has been directed and financed by mining companies to supply their own operations. For example, the third phase of the DRC's Inga Dam project is reportedly expected to generate 4,400 MW— but most of this will be used to power the copper mines and smelters in Haut-Katanga Province. Just a third of the power will be allocated to power nearby Kinshasa. This inequitable distribution of energy also perpetuates social inequalities in mining communities fostering resentment and social tensions, as communities feel burdened by the environmental and social costs of mining without receiving proportional benefits.

Delivering environmental restoration

Mining has traditionally caused extensive environmental harm, including deforestation, soil degradation, and water contamination. A just transition aims to mitigate these impacts through several strategies: rehabilitating mined lands and restoring ecosystems to promote agriculture, biodiversity, and water security; enforcing strict environmental regulations to prevent further damage from mining activities; and supporting community-led conservation initiatives that align with sustainable development goals. Much of this is still being led by government policy, where it exists, but there is a real need for mining companies to step up and start thinking about how they are going to restore natural environments long before minerals are first extracted, rather than waiting until later in the lifecycle of the mine.

66 Environmental restoration in Africa's mining communities is set to be one of the big sustainability challenges for mining companies over the coming decades."

In South Africa, thousands of abandoned mines pose environmental and safety risks. To address this, the government, through the Department of Mineral Resources and Energy (DMRE) launched programmes to rehabilitate these sites. The Mine Closure and Rehabilitation Programme focuses on sealing hazardous mine shafts, restoring vegetation, and managing acid mine drainage. In Mpumalanga, previously mined lands have been transformed into agricultural zones, providing new livelihoods for local communities. Other examples of rehabilitation programmes can be found in Zambia's Copperbelt region, where decades of copper mining have led to deforestation and soil degradation. Mining companies and NGOs have collaborated on reforestation initiatives to counteract these effects. Konkola Copper Mines (KCM), for example, implemented a reforestation programme that includes planting thousands of trees and educating local communities on sustainable land management practices. Mining in DRC has encroached on protected areas, going against the Congolese Mining code, in areas like the Okapi Wildlife Reserve. For eight years, a Chinese mining company has been vastly





expanding inside the endangered World Heritage Site, accused by locals and conservationists of decimating the environment. According to a joint statement from the Wildlife Conservation Society and government agencies, between last January and May, the reserve lost more than 480 hectares (1,186 acres) of forest cover — the size of nearly 900 American football fields due to mining operations in the area.

Environmental restoration in Africa's mining communities is set to be one of the big sustainability challenges for mining companies over the coming decades, but it will be absolutely critical to addressing the long-term consequences of resource extraction in the context of the Energy Transition. Some mines are starting to make progress in some regions, but the success and scalability of these initiatives will rely on adapting to very local communities and environments, and the future collaboration among governments, mining companies, NGOs, and local communities.

Addressing organised crime on artisanal and small-scale mining communities

Artisanal and small-scale mining (ASM) is a vital economic activity for millions of people across Africa, providing employment and income for rural communities. However, the infiltration of organised or petty crime into the sector presents a complex challenge, particularly in the context of the energy transition. The Democratic Republic of Congo (DRC) is well renowned for this

problem, where prolonged conflict has facilitated the widespread smuggling of copper and cobalt, and other minerals from illegal mining operations in the eastern and southern regions into neighbouring countries, where they are sold on global markets. These activities have been extensively documented by the United Nations, Global Witness, and other human rights organisations. Elsewhere, illegal miners in South Africa known as "zama zamas," (in Zulu translating to "keep on trying," or "to gamble") are stealing the copper used in electrical wiring across multiple platinum mines, and which can be easily sold on the black market. Illegal miners have also been found illegally acquiring explosives, diesel, and other equipment from mines, and making illicit electricity connections from the mine's own infrastructure. According to a report from South Africa's Mining Council, any interruption of the mine's electricity supply could affect the mine's underground ventilation system putting at risk the mine workers operating in it. Without improved security, this will potentially hinder Government efforts to introduce renewable solar-powered mining tools or grid connections for fear they will be undermined by criminal groups. With targeted interventions — such as strengthening governance, promoting community-led energy projects, addressing the root causes of the illegal activities and improving security — these challenges can be mitigated, ensuring that small-scale mining communities are not left behind in the global shift toward sustainable energy.

Ensuring social justice and inclusion

A just transition emphasises social equity, aiming to ensure that the advantages of sustainable practices are distributed fairly and that marginalised groups are included. For African mining communities, this involves securing equitable compensation for land and resources used by mining companies while providing women, youth, and Indigenous Peoples with access to opportunities generated by the transition. Across the continent, several initiatives are advancing the fair distribution of resources, safeguarding workers' rights, and empowering underrepresented groups within mining communities. For instance, Ghana's mining sector has introduced local content policies requiring companies to procure goods and services locally and to provide training for community members. Companies like Newmont Goldcorp have partnered with local enterprises to build capacity and encourage entrepreneurship.

Additionally, NGOs and mining corporations have launched programmes to train and employ women in technical and leadership roles. For example, Barrick Gold has implemented health, education, and mentorship initiatives benefiting communities such as those in the Copperbelt region. Tanzania has established Community Development Agreements (CDAs) to ensure mining companies contribute directly to local communities. At the Geita Gold Mine, AngloGold Ashanti has partnered with local stakeholders through a CDA to finance infrastructure, education, and healthcare projects, allocating a percentage of the mine's revenue to these efforts.

By focusing on local employment, equitable benefit sharing, gender inclusion, and community empowerment, these efforts ensure mining communities are active participants and beneficiaries of resource extraction. But, too often, these programmes are launched by a single individual within the company, often with little decision-making power or budgetary support. The programmes suffer from under or short-term funding and a failure to integrate them fully into the corporate function of the mine. In other cases, mining operators may claim they are too small to take on the challenges facing local communities, or will be keen to be seen to be doing something, actively pursuing a position near to the back of the pack of their fellow operators in

country, but crucially not at the back so as to avoid government, media, or reputational scrutiny. This race to the bottom is an ongoing trend we see in several African geographies. A greater and more integrated corporate focus, as well as continued collaboration between governments, corporations, and local stakeholders are absolutely crucial to expanding on the current successes and addressing ongoing challenges.

The path forward

The road to a Just Energy Transition for African mining communities is fraught with challenges, but solutions are within reach with appropriate management. The key lies in scaling sustainable mining practices that prioritise environmental stewardship, fair compensation, health and safety standards. Governments and Corporates must forge genuine partnerships, involving and ensuring that mining communities benefit from this shift. This will require prioritising renewable energy access, fostering community participation in decision-making, and addressing the influence of organised crime. By equally aligning commercial goals with local development, Africa can shape its mining sector as a driver of both the global energy transition and regional prosperity, ensuring no community is left behind.

Article by **Belén Satorre**Associate Director, ESG - Human Rights





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Natalie works closely with corporates and private equity to build and implement ESG and sustainability

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Matt Venturas leads S-RM's corporate intelligence work in sub-Saharan Africa out of our Cape Town office. He advises a range of clients, including development finance institutions, Africa-focused private equity firms, and multinationals, on the market and integrity risks attached to conducting business throughout Africa. Matt focuses primarily on pre-transactional due diligence across the continent, as well as leading in-country investigations on state-owned entities and public-private partnerships, supply chain due diligence, identification of illicit trafficking networks, and cross-jurisdictional asset traces and litigation support. These investigations typically include detailed stakeholder mapping exercises aimed at identifying allegiances and behavioral patterns among political elites and how this impacts local business environments.



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Thomas is an Associate Director on S-RM's sub-Saharan Africa team based in Cape Town. He

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Belén runs S-RM's dedicated human rights practice, providing practical and strategic support to clients

in line with international best practice. She has more than a decade of experience, including advising luxury goods clients on diverse ESG reporting frameworks and how to mitigate risks across their value chains. Her proficiency lies in the strategic management and execution of human rights and ESG strategies for both private and non-profit organisations. In addition to her private sector work, Belén has held a number of international roles with the UNHCR and UNESCO, as well as a range of think tanks and NGOs.

S-RM is a corporate intelligence and cyber security consultancy. We provide intelligence, resilience and response solutions to organisations worldwide.

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