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Informing Power Sector Transformation in Sub-Saharan Africa

Learning from Experiences in the Global South

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Covid-19 has clearly demonstrated how vulnerable sub-Saharan Africa (SSA) power sectors are, with their fragility amplifying the impacts of Covid-19 on SSA societies and economies and hampering the ability of the region to recover from the pandemic. Drawing on the experiences of countries in the global South, we explore how the power sectors in SSA could chart new, resilient and sustainable courses.

Introduction

The transformation of power sectors is a challenge confronting countries around the world. What makes this challenge particularly acute in sub-Saharan Africa (SSA) is that, for many decades already, power sectors have been facing numerous interlocking challenges, including low access rates, poor reliability, high costs, lack of maintenance and financial sustainability, and an over-reliance on particular energy-generation technologies and state-owned utilities.

More recently, the impacts of Covid-19 have starkly demonstrated just how vulnerable SSA power sectors are, with their fragility amplifying the impacts of Covid-19 on SSA societies and economies and hampering the ability of the region to recover from the pandemic. Now more than ever a diverse range of actors, policies, technologies, and financial options are needed to chart a new, resilient and sustainable course for the region's power sectors.

In this brief we explore how countries in SSA could go about such a course change. We start by reflecting on the responses to Covid-19 of power sectors in countries of the global South. We then use learnings from these experiences to identify a set of response features that are relevant to the SSA context. Based on these analyses we offer power-sector decision makers several key considerations to inform their decisions as they work to enhance the resilience and competitiveness of SSA power sectors.

Responses to Covid-19 of power sectors in the global South

Covid-19 has had significant and varied impacts on countries in the global South, and the responses of these countries to this pandemic have been similarly varied. We explored a wide range of Covid-19 power-sector responses from developing countries in Latin America and Asia, especially examples with a direct link to renewable energy (RE). We considered both new and repurposed responses (including policies, programmes, projects, initiatives, and funds) implemented by a wide range of agents (including governments, the private sector, civil society, donors, and others). However, we were particularly focused on the role that governments played in directly or indirectly enabling and implementing responses. We describe our findings below and provide additional details of the examples in Annexure 1⁶.

Accelerating investment in clean energy transitions

In several countries, including Brazil, Colombia, Malaysia, Indonesia and Mongolia, Covid-19 appeared linked to an accelerated and expanded implementation of RE policy and investments. However, this was not the case across the board, with Chile, China and a number of other developed countries delaying their clean energy transitions by fully or partially postponing their renewable energy auction schedules.

Providing national finance for sustainable enterprises and generating revenue

Countries like the Philippines, Brazil, Mexico and Fiji provided Covid-19-related relief funds from both new and existing sources. While these funds had differing degrees of conditionality and/or targeting, countries used mechanisms like concessions, subsidised credit and private sector participation to support and promote sustainable enterprises. We also saw countries like Argentina and India using innovative taxing methods to raise additional revenue while (in the case of India) simultaneously driving behaviour change.

Increasing availability of international development finance

International development finance became increasingly available to help countries deal with Covid-19-related fiscal constraints. For example, the Climate Investment Funds collaborated with the Multilateral Development Banks to fund actions that help countries meet their major current challenges while simultaneously building longer-term resilience. Since Covid-19 began, the Green Climate Fund has also

approved three new projects for island nations, including strengthening buildings to withstand hurricanes in Antigua and Barbuda, and installing solar power systems on farmland on Fiji's Ovalau island. Lastly, to access this international finance, countries have been working specifically to align their Covid-19 responses with developmental objectives.

Focusing on fossil fuels for short-term recovery risks long-term carbon lock-ins

We saw targeted support of the power sector as part of Covid-19 recovery strategies. However, as this support was often directed (entirely, or partially) to fossil-fuel-based incumbents, the short-term benefits that result could compromise longer-term sustainability objectives. For example, we saw oil, gas and/or coal sectors being incentivised through stimulus packages (Indonesia; albeit along with similar incentives for the RE industry), newly exploited (Colombia), and integrated into efforts to build value-chain resilience (Argentina). Some countries also provided targeted support for household energy costs, such as containing bill increases (Mexico), increasing subsidies (Colombia), and postponing bill payments (Peru and Colombia), with unclear long-term implications.

Leveraging what already exists

Some countries extended or leveraged policies and programmes that could contribute to Covid-19 recovery (or other targets) while meeting energy transition goals. This included China extending support for its new electric vehicle markets to cushion the impacts of Covid-19, and El Salvador exploring electrical energy from geothermal resources to meet its national energy and economic recovery objectives. We also saw this leveraging taking place in non-governmental programmes with a rural energy service in India using sustainable energy as a way to democratise services like education and health care.

Providing targeted support for micro, small and medium enterprises

Micro, small and medium enterprises (MSMEs) play a critical role in many developing countries' economies, and they represent an opportunity for targeted support that can drive RE and development objectives. We saw this support emerging at a country level, with Nepal requiring banks to extend at least 40% of their loans to MSMEs and borrowers in the agriculture, energy, and tourism sectors by July 2024. We also saw international development funders, such as the Energy Access Relief Fund and DEG, directing support to innovative small- to medium-sized energy access companies in Africa and Asia.

What can SSA power sectors learn from other experiences in the global South?

Despite the recognition of the precarious positions of SSA power sectors, very few SSA countries provided direct support to their power sectors as part of their emergency relief measures (with the exception of countries like Nigeria, Kenya and Burkina Faso), nor included power sectors in their economic stimulus packages. Yet, the examples of innovative and tailored power-sector responses from Latin America and Asia demonstrate the potential role of the power sector in contributing to socio-economic recovery. In Figure 1 we categorise these responses into five consideration areas for informing power-sector transformation, and offer a set of key features associated with each. Our intention is not to provide a panacea, but rather to highlight some of the impactful interventions used to date that could support the transformation of power sectors in SSA and catalyse socioeconomic recovery in the wake of Covid-19.

KEY FEATURES OF POWER-SECTOR RESPONSES TO COVID-19 IN THE GLOBAL SOUTH

CONSIDERATION AREAS

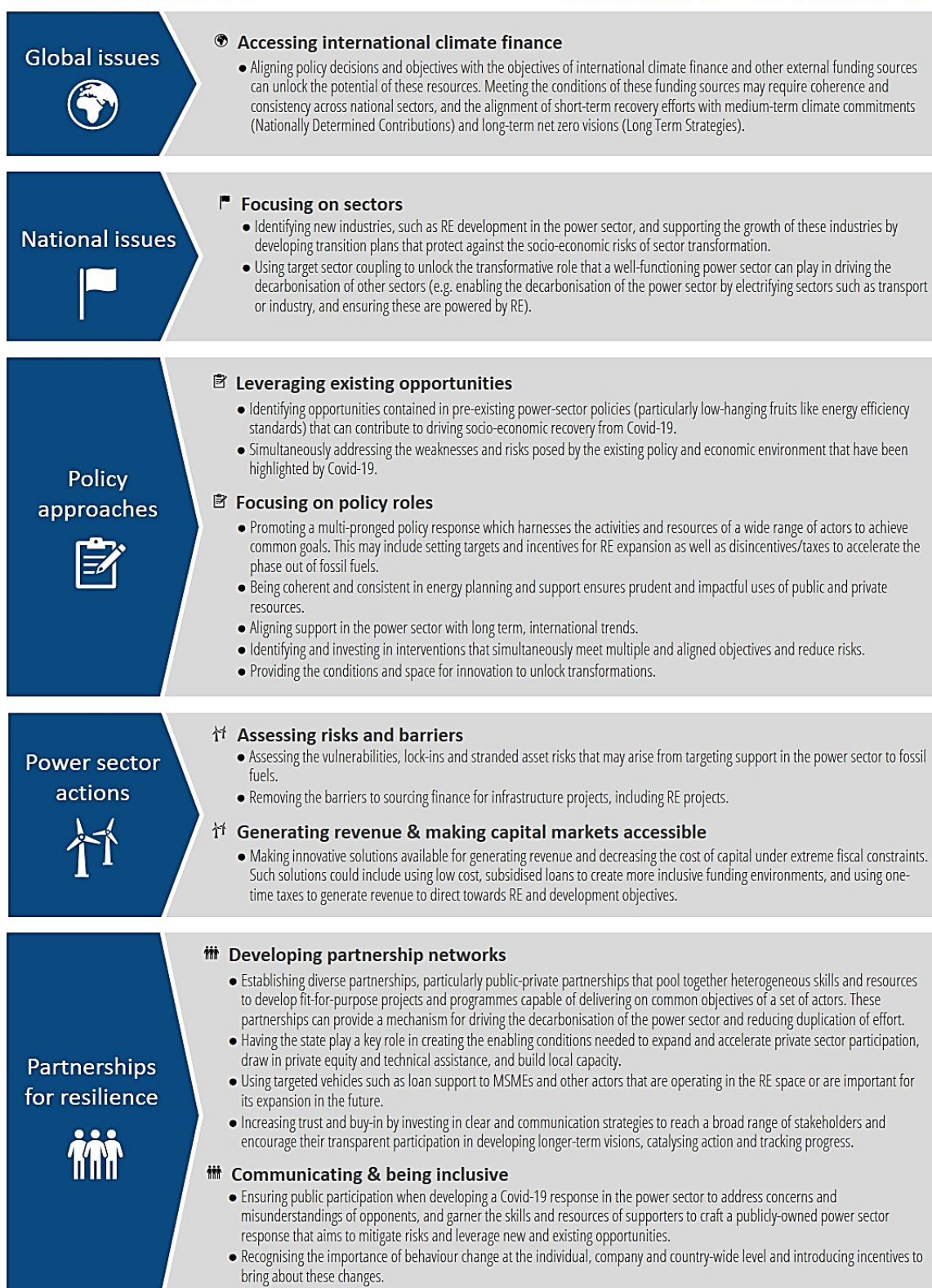


Figure 1: Consideration areas for power-sector transformation and the key features of power-sector responses to Covid-19, as drawn from the experiences of developing countries in the global South.

Key reflections for decision makers in SSA power sectors

Crises with dire economic impacts can provide a window to transform from a business-as-usual mindset, toward economic and sectoral reforms. Covid-19 presents such a window on a global scale. Drawing on experiences of power sectors in the global South (Figure 1 and [Annexure 1](#)) we synthesise key reflections for power-sector decision makers within SSA faced with the challenge of jumpstarting and supporting sustainable economic recovery.

1. Balance short- and long-term objectives

Any approach needs to consider how to balance multiple objectives over different time horizons. Ensure that responses to short-term needs do not jeopardise pathways to desired long-term outcomes.

2. Design a pragmatic and staged approach

Acknowledge that sequencing is important. Start with what exists, using low-hanging fruits as a foundation and addressing inherent risks at the outset, before building up to more ambitious and scalable targets. This approach should not exclude innovation or bias the status quo, but rather unlock transformation.

3. Focus on the pressing need for support under fiscal and capacity constraints

Although the need for financial, technical, and other support is not new, the constraints imposed by Covid-19 make it that much more acute. Explore innovative solutions to unlock finance such as:

- evaluating the revenue-raising potential and acceptability of a once-off wealth tax,
- crowding-in the private sector and international technical expertise,
- using credit lines to promote national companies to become suppliers in the RE value chain,
- determining the most critical levers for desired investments in RE and RE value chains,
- investigating the conditions and thresholds needed to enable the private sector to invest in a transition,
- aligning policy environments and objectives to the goals of international climate finance to be eligible to receive such funds.

4. Foster partnerships

Working alone, state governments in SSA operating under severe fiscal constraints cannot respond to the magnitude of the challenges of this moment. State governments partnering with other actors represents the most feasible strategy for unlocking change at the scale and speed required. Define the roles of relevant actors given their experience, skills, and resources. Establish a coordinated, differentiated response based on the involvement of diverse actors to avoid duplication and contradictions and enhance impact.

5. Develop and communicate a clear vision for a transition

The benefits and narrative of the status quo are clear to society, although many of the risks remain hidden or under appreciated. Contrastingly, the risks of a transition are prominent in the minds of the incumbency and society at large. A transition needs to be underpinned by a clear vision and compelling narrative that (1) identifies the risks and opportunities of the status quo and a given transition pathway, and (2) convincingly communicates the justification and opportunities of transformative change. Furthermore, fears of energy transitions in SSA leaving behind the most vulnerable of society are legitimate. These concerns need to be openly addressed and managed with clear and feasible plans, and doing so may help to build back trust between SSA governments and societies.

6. Position the renewables-based power sector as a catalyst for transformation

Diversifying economies is key for enhancing resilience and competitiveness of economies in SSA, and the renewable energy sector can make a valuable contribution in this regard. Investigate how renewables could enhance the performance, resilience, and competitiveness of a country's power sector. Then identify how the technical and financial solutions in the renewables-based power sector can be used to drive progress in more-difficult-to-transform sectors, such as buildings, industry, and transport.

7. Communicate that SSA, and specifically its power sectors, are “open for business”

Investor confidence in SSA is low. State governments have a crucial role to play in increasing that confidence and strengthening the contribution from the private sector through long-term policy signals and a consistent policy environment. SSA also represents a significant opportunity area given growing markets and the potential to develop industries to meet the increasing global demands for zero- or low-carbon products. Governments should prepare the ground and attract investment. For example, electrification offers a key mechanism for decarbonisation, particularly in the industrial and transport sectors. SSA's conditions are well suited to large-scale renewable electrification that could enable production of green hydrogen or electrification of industrial processes. Countries looking to export products such as green ammonia, green steel and green aviation fuel will require significant investments in RE.

8. Focus on the policy environment

Outdated and rigid policy and regulatory environments strangle experimentation and innovation. Providing the conditions for innovation may be one of the best ways to address pressing problems in SSA. Ensure that policy environments cultivate coherency and consistency across sectors at the national scale. Aligning policies with accelerating international trends and opportunities will also avoid allocating support to sunset industries (e.g. coal and internal combustion engines) that are associated with numerous risks.

9. Support MSMEs

MSMEs are critical players in SSA, given their roles as employers and economic contributors, and their agility and ability to innovate. As such they collectively represent a significant opportunity to increase energy efficiency and demand for renewable energy across the region. Yet MSMEs have also been some of the enterprises hardest hit by Covid-19, and should thus be prioritised for support through mechanisms such as low-cost loans

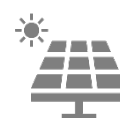
Annexure 1:

What can we learn from the Responses of the Power Sector to Covid-19 in the Global South?

Examples from developing countries in the global South

Accelerating investment in clean energy transitions

- › In Brazil, the Brazilian Development Bank approved financing for a windmill manufacturer and the construction of six wind farms, announced support for electricity distributors' investment plan and issued R\$1 billion in green bonds.
- › In Colombia, as part of the country's recovery package, the government committed to accelerate 27 strategic renewable energy and transmission projects.
- › Malaysia opened bids for 1400MW of solar power generation and accelerated projects related to LED street lights, transmission lines and rooftop solar installations.
- › The Asian Development Bank advanced efforts to deliver projects relating to sustainable, secure, equitable and advanced energy services, and has already approved a US\$300 million loan for Indonesia to develop geothermal resources for renewable baseload power and to support future wind and solar deployments.
- › In Mongolia, the first utility-scale battery storage project valued at US\$110 million will strengthen the grid, supporting the integration of renewable energy and reducing reliance on coal for power generation.



National finance for sustainable enterprises and attempts to generate revenue

- › The Philippines used US\$250 million in concessional financing to demonstrate the market viability of low-carbon public transport solutions and encourage private sector participation in industrial energy efficiency and renewable energy like solar, wind, and biomass.
- › Brazil implemented various untargeted measures to boost liquidity. The country also has a federal subsidised credit line for cooperatives and small- and medium-sized enterprises that support sustainable production systems that keep forests standing, and has directed US\$2 million in emergency credit to sustainable enterprises impacted by Covid-19.
- › Mexico issued a sustainable sovereign bond linked to the Sustainable Development Goals (SDGs) promoted by the United Nations (UN) amounting to €750 million. While not specifically targeting the power sector, the sale of the bonds will include the promotion of renewable-energy-related activities.
- › The Reserve Bank of Fiji raised its Import Substitution and Export Finance Facility by FJ\$100 million to provide credit to exporters, large-scale commercial agricultural farmers, public transportation and renewable energy businesses at concessional rates.
- › India's government increased excise duties on petrol to generate public revenues earmarked for post Covid-19 crisis recovery.
- › Argentina adopted an innovative one-time tax on the wealthiest to generate revenue that could help support the most vulnerable societal groups and economic sectors, albeit that 25 percent of the revenue will be used to promote gas extraction and exploration.



Increasing availability of international development finance

- › The Green Climate Fund is supporting projects to strengthen buildings to withstand hurricanes in Antigua and Barbuda, and supporting the installation of solar power systems on farmland on Fiji's Ovalau Island.



Focusing on fossil fuels for short-term recovery, risks long-term carbon lock-ins

- › To increase the national integration of the production chain, Argentina offered suppliers in strategic and high-impact sectors, a credit line with “non-reimbursable contributions” that covers up to 70 percent of project investments. While this strategy will likely contribute to increased value-chain resilience, the inclusion of sectors such as oil and gas risks long-term costs and carbon lock-in.
- › In Colombia, a decision was made in September 2020 to exploit unconventional hydrocarbon reservoirs.
- › Indonesia has included gas and coal sectors among its business sectors eligible to receive fiscal incentives through the country’s stimulus package. However, the country has also developed several support measures for the renewable energy industry in the form of tax incentives (exemption of VAT and income tax for renewable energy developers) and other stimulus measures such as deferment of loan repayments, lower increase rates for renewable energy projects, and adjustments to procurement terms.
- › Mexico adopted various measures to contain electricity bill increases for households.
- › Peru allowed low-income households to postpone their energy bills for one month.
- › Colombia allowed low-income households to postpone their energy bills for 36 months, and increased subsidies for natural gas (by 10 percent).



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- › To cushion the impacts of Covid-19 on new electric vehicle markets, China’s government extended financial support for an additional two years (to end of 2022).
- › El Salvador is exploring electrical energy from geothermal resources as a way of meeting the objectives of the National Energy Policy, while responding to the need to achieve a sustainable economic recovery.
- › In India, rural energy service company SELCO, has adapted its work on democratising services like education and health using sustainable energy as a catalyst. This included redesigning parts of hospitals and looking at the energy efficiency of devices such as respirators.



Targeted support for micro, small and medium enterprises

- › Loan support to micro, small and medium enterprises (MSMEs) and other actors in the renewable energy space played an important role in Nepal’s Covid-19 recovery, with banks required to extend at least 40 percent of their loans to MSMEs and borrowers in the agriculture, energy and tourism sectors by July 2024.



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⁶ The details included in Annexure 1 provide the basis for the higher-level reflections of this brief, and we therefore encourage the reader to use this document to engage with the justifications of the insights provided.

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