Just Transitions in South Africa

A Case Study by the Climate Investment Funds

Background on the Climate Investment Funds

The USD 8 billion Climate Investment Funds (CIF) were created in 2008 to help finance accelerated transitions to low-carbon and climate-resilient development in low- and middle-income countries. Its programs finance clean technology, energy access, climate resilience, and sustainable forestry initiatives. CIF operates in 72 developing countries through six Multilateral Development Banks (MDBs) as its implementing agencies. CIF has operated as a laboratory for developing, implementing, and evaluating new approaches to climate investments, as well as learning from them.

Key Characteristics of Just Transitions in South Africa

South Africa is one of the top 15 CO2 emitters and the most unequal country in the world. Its continued dependence on coal for more than 80 percent of its electricity has significant environmental, social, and economic costs. The cost of coal to Eskom, South Africa's state-owned electricity provider, has risen by 300 percent over the past two decades. Moreover, several episodes of rotational national power outages have revealed inadequacies in the maintenance of aging coal-fired power stations, technical issues, and management challenges. At the same time, the declining costs of renewables have made it clear that the high dependence on coal is increasingly unfeasible and unjustifiable.

South Africa's utilization of coal has also exacted a heavy environmental toll. Each year, 2,239 people die from air pollution produced by Eskom's coal-fired plants. With coal mining contributing to water pollution and coal-fired power stations consuming vast amounts of water, South Africa's continuous reliance on coal is intensifying its water shortage and vulnerability to droughts that have been exacerbated by climate change.

There are numerous benefits of renewables, but many stakeholder groups stand to lose substantially in the country's shift away from coal. They include public and private institutions, as well as vulnerable communities that are highly dependent on the mining sector for their livelihoods and municipal services. Nonetheless, the rising costs and inefficiencies of coal use, an aging fleet of coal-fired power stations, and mitigation measures such as those outlined in the country's Nationally Determined Contributions (NDCs) mean that a growing number of coal-fired power plants will continue to be decommissioned. This is driving a concomitant decline in employment across the sector.

The implementation of the transition from coal to renewables is complex and can be fraught with tension. For example, Eskom's announcement in 2016 to decommission six coal power plants, which would result in significant job losses, led to labor protests. South Africa's successful transition to an environmentally sustainable, socially inclusive, and economically beneficial energy regime will require conscious and proactive planning, and the delivery of critical strategies and investments to manage the allocation of benefits and harms due to the transition.

CIF's support to South Africa's transition

A 2020 case study report found that CIF and its MDB partners' have contributed to South Africa's energy transition through the promotion of cross-sectoral dialogues to develop informed energy policies and

plans and the provision of concessional financing to renewable energy projects. Though this support was not originally designed with a just transitions focus, it offers helpful examples of various aspects of just transitions, which can serve as a basis for reflection and learning.

The cross-sectoral dialogues, involving the government, Eskom, and CIF's implementing partners, contributed to the development of the Long-Term Mitigation Scenarios (LTMS), which, in turn informed the South Africa Clean Technology Fund (CTF) Investment Plan (2009) in addition to the cross-sectoral and institutional dialogues facilitated through CIF's programmatic approach to investment planning. The investment plan reflected the South African government's commitment to pursue its renewable energy policy. This strategy was further enhanced by the establishment of the Renewable Energy Independent Power Producers Procurement Program (REIPPPP) in 2011, which opened the way for the government to procure privately supplied renewable energy through a competitive bidding process.

CIF, through three of its six implementing partners, namely, the International Bank for Reconstruction and Development (IBRD), the African Development Bank (AfDB), and the International Finance Corporation (IFC), stepped in to provide concessional financing to renewable energy projects. The investment amount from CIF's CTF totaled USD233 million, while the MDBs co-financed an additional sum of over USD370 million. Deeper dives into two projects — the Sere Wind Farm and the Xina Solar One Concentrated Solar Power (CSP) plant — show that CIF's provision of concessional financing was critical in showcasing the technical and economic viability of these technologies, thus helping to galvanize private sector investments in renewables in South Africa.

Impacts of CIF Supported Projects on Just Transitions of the Work Force and Creation of Decent Work and Quality Jobs/Economic Diversification and Transformation

The **Sere Wind Farm** project aimed to facilitate the accelerated development of large-scale renewable energy capacity in support of South Africa's long-term carbon mitigation strategy. The lack of wind power's proven performance on a large scale in South Africa created the perception of risk amongst potential private investors. The project thus sought to address this barrier by catalyzing private sector investment through decreasing risk and increasing transmission capacity by connecting Independent Power Producers to the national grid. Concessional finance proved to be the key to unlocking investment and completing the early wind farm development at scale in South Africa.

The Sere Wind Farm provided benefits to the local economy. Through a process of stakeholder engagement with community members and the local municipality, socio-economic concerns within a radius of 50km of the project site were identified and funded. These included concerns focused on local employment opportunities, affordable school transport, opportunities for the youth, cultural activities, business and work, leadership development, community facilities and infrastructure, along with social services. The Eskom Development Foundation and the developers invested an estimated USD40,000 in addressing these needs. Contractors also employed laborers from the local community during the construction, utilizing 540 people at the peak of construction. Nine permanent jobs have been created for local community members. It is estimated that a further USD280,000 was spent on local contractors, thus directly benefiting the local economy. No formal community ownership program could be put in place due to the institutional context; however, development opportunities have been offered in a rural area with few such opportunities and a positive relationship with the community has been built.

Skills development was included by Eskom in the four main contracts linked to the Sere Wind Farm. The contractors provided training on topics in line with the skills and knowledge required to maintain and operate a wind farm, offered bursaries to identified local college students, or made bursary funds available by way of a deposit in the identified college's account and monitored them to ensure the proper use of the funds. This skills development has enabled local workers, employed by Eskom, to progressively take over the maintenance and operation of the Sere Wind Farm.

Another CIF-funded project, the **Xina Solar One plant**, features innovative renewable energy technology in the form of an integrated storage system that enables the plant to continue distributing power for 5.5 hours after sunset. Although expensive, this storage makes it possible to dispatch energy into the grid during the evening demand peak. In addition to meeting energy demands in the country and reducing harmful emissions, the project has supported black ownership with dividends flowing to a community trust; created local jobs; and used local suppliers for over 40 percent of project materials. The project provided benefits to the local economy and contributed to economic diversification by requiring that 1 percent of the revenue be spent on socio-economic development within a 50km radius of the project. Programs in the community, which have benefited from the annual budget of approximately USD1 million generated, are as follows: after-school care for school children (23 percent); improvements of education in schools, bursaries, and internship programs for youths (20 percent); along with local agricultural projects to build sustainability in the local (50km radius) community (25 percent). Additional benefits included the creation of 1,300 positions during the peak construction period. South African citizens filled approximately 70 percent of the jobs created during construction. Further employment opportunities in the country were created through a requirement that a minimum level (40 percent) of materials and equipment be provided by local suppliers. During operations, the site employs 80 people from local communities.

A "skills hub" has been set up through three CSP projects in the area which includes Xina Solar One. Young interns are being given the opportunity to learn, while working on one of the CSP projects, which could then lead to the possibility of applying for permanent posts as they become available in the area.

While these projects illustrate the kinds of local benefits that can be derived from climate investments, just transitions for South Africa implies a much wider and deeper level of change. This implies addressing the lack of access to affordable electricity for vulnerable communities; tackling the concerns of communities that will be hard hit by a shift away from coal towards renewables due to their heavy dependence on the mining sector for their livelihoods and municipal services; and taking into account economy-wide impacts that any transition might entail. Together, these considerations reveal the incongruity of focusing community benefits around renewable energy projects in one part of the country, while failing to acknowledge the impacts of the transition away from coal in another part.

Insights and Lessons Learned

A literature review, interviews that informed the case study, and deep dives into two CIF projects have provided many insights into and revealed numerous opportunities for supporting just transitions in South Africa:

- **Informed national planning for the long term:** A vital part of initiating just transitions involves the use of socio-economic and climate modeling to develop long-term national plans that are inclusive and transformational. In South Africa, LTMS informed the first Integrated Resources Plan (IRP) on energy. Ongoing modeling is needed to inform the development and implementation of IRP and other climate-related transition policies and plans.
- **Inclusive cross-sectoral dialogues at all levels:** Given the breadth and depth of just transitions, it is vital to ensure the fair and inclusive representation of all interests and perspectives through cross-sectoral dialogues taking place at the local, regional, and national levels. The Presidential Climate Change Coordinating Commission is a significant opportunity for providing such a platform that can sustain cross-sectoral dialogues with social inclusivity and distributional impact as key guiding principles.
- **Enabling role of concessional financing:** The provision of concessional financing by climate finance institutions, as CIF has done in South Africa, plays a pivotal role in demonstrating the feasibility of renewable energy projects by de-risking and incentivizing both public and private sector investments in renewable energy. Concessional finance, combined with the other insights and opportunities listed here, has significant potential to de-risk and support South Africa's energy transition and post COVID-19 recovery that could accelerate the country's transition to an inclusive green economy.
- **Anticipatory skills development at the national level:** To ensure that South Africa equips its people with the skills to support the country's shift towards a low-carbon, resource-efficient, and inclusive economy, anticipatory skills development is required. This necessitates a labor market intelligence system that can identify emerging skills and occupations in order to proactively plan for the development of these skills.
- **Adopting a broad perspective:** The shift to renewable energy and other sustainable development transitions will create net employment and development benefits. However, workers and communities in particular areas will lose jobs and livelihood opportunities during these transitions. With vulnerable mining communities concentrated in specific areas, research and planning efforts should create alternative employment and livelihood options in these areas.
- **Built-in non-financial procurement criteria to ensure just transitions:** The incorporation of non-financial criteria in competitive bidding processes can ensure that investments in new low-carbon, climate-resilient infrastructure are more closely aligned with the socio-economic and environmental needs of local communities and national development.

Looking ahead

CIF is currently exploring opportunities to provide support to countries pursuing just transitions. A recent Discussion Paper on just transitions further outlines some of the key roles and attributes of CIF and the MDBs to support just transitions through future investments. CIF's five new strategic investment programs are being designed to help create new green jobs and opportunities in the transition to a green economy. Two of these programs, which are for accelerating coal transition and integrating renewable energy, have received commitments of up to $2 billion, which the G7 welcomed in June, and will support developing countries in accelerating the transition from coal while investing in technology, job training, and infrastructure to unlock a more reliable and prosperous clean energy economy.