

South Africa secures R131-billion in pledges to kick-start energy transition

The plan is to decommission Eskom's coal-fired power stations and repurpose them for renewable energy

Patrick Wadula

Negotiating with and lobbying developed countries to meet their commitments in assisting developing countries to reduce carbon emission and global warming at the United Nations Climate Change Conference (COP26) in Glasgow, Scotland is at the top of South Africa's agenda. Barbara Creecy, Minister of Forestry, Fisheries and the Environment, is leading a high-powered South African delegation at the summit and they have already achieved positive results.

South Africa has secured R131-billion in pledges over three to five years from the European Union, Germany, France, the UK and the US, who have committed to support the country in its transition to clean, renewable energy. The plan is to decommission Eskom's coal-fired power stations and repurpose them for renewable energy.

The funding will take the form of grants, concessional loans, investment and risk-sharing instruments, as well as mobilising the private sector to reduce emissions, develop electric vehicles and implement green hydrogen.

Celebrating the partnership, President Cyril Ramaphosa said: "Climate change is an existential challenge that confronts us all, and South Africa is committed to playing its part in reducing global emissions. The partnership that we have established is a watershed moment not only for our own just transition, but for the world as a whole. It is proof that we can take ambitious climate action while increasing our energy security, creating jobs and harnessing new opportunities for investment, with support from developed economies."

In a broader sense, Creecy says the Glasgow outcome has to be a package deal that advances the negotiations and all three aspects of the Paris Agreement, namely mitigation, adaptation, and the means of implementation of climate action.

For almost three decades, governments across the globe have met nearly every year to forge a global response to the climate emergency. Under the 1992 United Nations Framework Convention on Climate Change (UNFCCC), every country is treaty-bound to "avoid dangerous climate change" and to find ways to reduce greenhouse gas emissions globally in an equitable way.

Over the years, the summit has swung between fractious and soporific, interspersed with moments of high drama, occasional triumph (the Paris agreement in 2015) and disaster (Copenhagen in 2009).

The COP26 summit was postponed by a year due to Covid-19 and is being viewed by many as pivotal to saving the planet from the continued negative effects of climate change. It aims to curb emissions, negotiate how best to ensure global average temperature increases stay below 1.5°C, reduce coal use, establish rules for a global carbon market, and raise billions in climate finance.

Temperatures around the world are about 1.1 – 1.2°C above pre-industrial levels, and greenhouse gas emissions are still on an upward trend. Carbon dioxide output plunged globally during the Covid-19 lockdowns last year, but this was temporary and has begun to surge as economies recover. To stay within the 1.5°C goal, global emissions need to come down by about 7% a year for this decade.

Since the Paris Accord in 2015, scientists have issued increasingly urgent warnings that the goal of 1.5°C is slipping out of reach. To meet this target, global emissions must decline 45% by 2030 from 2010 levels and reach net zero by 2050. This requires enormous changes to countries' transport systems, energy production, manufacturing, and farming.

Creecy said that as part of a \$2.5-million (R38.5 million) allocation from the Clean Technology Fund, South Africa secured \$1-million (R15.4-million) to develop a just transition investment plan.

"The focus of this investment plan is the Eskom energy transition, including the repowering and repurposing of retiring coal plants and investment in new low carbon generation capacity.

"We hope to use the informal side meetings that take place at COP26 to generate further interest in supporting the country's Just Transition to a low carbon economy and climate-resilient society," Creecy said.

The Green Climate Fund, which aims to respond to and invest in climate-resilient developments, is skewed towards mitigation efforts, which limits adaptation efforts and has received less than \$5.5-billion (R84.6-billion) a year between 2014 and 2018.

She said there would be discussions with the global Climate Investment Funds (CIF) to broker a deal that could release up to \$500-million (R7.7-billion) to fund a shift away from coal-fired power.

"We see the decision by the CIF as a small but important first step towards laying the foundation for... our just transition," she said.

More than 10 years ago, developed nations pledged that by 2020 they would raise \$100-billion (R1.5-trillion) each year to assist developing nations transition to cleaner energy.

The pledge has not been met and developing countries are increasingly frustrated with



Barbara Creecy, Minister of Forestry, Fisheries and the Environment

the feeling of not being taken seriously and being set up for failure in meeting their own commitments to reduce global gas emissions. South Africa produces more than three-quarters of its electricity and more than a quarter of its liquid fuels for transport from coal, making it the world's 12th-largest greenhouse gas emitter and fourth most carbon-intensive economy.

According to the Organisation for Economic Co-operation and Development, the total global climate finance was \$79.6-billion (R1.2-trillion) in 2019, an increase of just 2% from 2018.

Creecy said it was important that developing and developed nations re-establish trust between them by ensuring that financial commitments are honoured, adding that the promise of \$100-billion (R1.5-trillion) a year needed to be increased to \$750-billion (R11.5-trillion) a year after 2025.

The conference needed to secure more "ambitious pledges" to further cut emissions, lock in billions in climate finance and complete

the rules to implement the Paris Agreement with the unanimous consent of the nearly 200 signatories.

Economic pressures and travel bans due to Covid-19 have exacerbated the divide between wealthier and poorer nations, and has meant that some representatives cannot attend COP26.

This has meant that the conference is not well attended and already the United Nations, the UK and the US have conceded that COP26 will not achieve its goals.

One of the key issues now is to ensure that the talks run smoothly. COP15 in Copenhagen (2009) was widely perceived as a failure, although it produced a partial agreement that became the foundation for Paris. The hope is that, obvious COP26 challenges aside, a clear road map will be drawn up that can keep the world from exceeding the 1.5°C goal.

the country's Economic Reconstruction and Recovery Plan.

Ramaphosa last month unveiled the new line of vehicles from Japanese auto manufacturing giant Toyota at the Prospecton plant south of Durban in KwaZulu-Natal. The newly-launched production line includes a hybrid model, the Corolla Cross, which is fuel and battery operated and will be exported to 40 countries across Africa.

"We have called on leaders of developed economies to support South Africa's efforts to green our economy and to address our very ambitious climate change goals through equally ambitious grant and concessional funding support. We have identified three key priorities for climate action," Ramaphosa said.

He said the government will also focus on reducing Eskom's carbon emissions to accelerate plans for a green-hydrogen economy. Eskom is hoping to unlock about R150-billion in green financing from international development agencies to finance a transition from coal to renewable

energy. The state-owned entity is pursuing a Just Energy Transition (JET) strategy to accelerate the repurposing and repowering of power stations to grow renewable energy in line with the Integrated Resource Plan of 2019. Eskom is the country's largest greenhouse gas emitter and has committed in principle to net-zero carbon emission by 2050, which means shutting down its coal-fired power stations.

Change is coming in other sectors too. Sasol recently announced a first-of-its-kind memorandum of agreement with the Northern Cape government to conduct a two-year feasibility study for a landmark green hydrogen project in Boegoebaai.

Priscillah Mabelane, Sasol's vice-president for Energy Business, said this project could potentially produce at least 400kt of hydrogen every year. The project underpins the province's Green Hydrogen strategy, a precursor to the country's Green Hydrogen strategy.

"A project of this magnitude has the potential to create up to 6 000 direct jobs, generating much needed socioeconomic

benefits, including creating further indirect jobs across the ecosystem. We are very excited to be leading this feasibility study as part of unlocking South Africa's ambition to be a global green hydrogen export player," she said.

The move towards the use of hydrogen – which only emits water vapour when used – has been globally hampered by the need to burn fossil fuels when extracting it.

COP26 is a critical pivot point for South African businesses, which operate in an economy that is one of the most coal-dependent in the world. The Climate Change Bill demonstrates South Africa's commitment to Carbon Tax and so does its move towards raising to 100MW the embedded generation threshold.

According to surveys, the Organisation for Economic Co-operation and Development says that the impact of Covid-19 has had some positive results. The pandemic has raised the public consciousness and the idea that our lives and the planet's are precious. This has led to the integration of



South Africa has one of the most coal-dependent economies in the world, but the government is making an effort to introduce green initiatives

environmental and inclusiveness views into recovery and stimulus measures, allowing countries to meet their environmental goals and commitments as they continue to grow.

Our critical role in global climate battle

South Africa is already experiencing the effects of climate change, and inconsistencies in law, policy and planning must be rectified

Lucas Ledwaba

Every year in early October, villagers would begin preparing their fields in anticipation of the annual rains, reminiscing subsistence farmer Jantjie Ramokone.

After the rains, they would use oxen to plough their patches of land. There was one hectare per household on the outskirts of the village as allocated by the traditional authority.

The villagers cultivated sorghum, millet, mealies, melons, beans, morogo, sweet potatoes, pumpkin and other crops. They also tended cattle and goats to provide milk. During the rainy season, the veld around the village teemed with wild fruit that supplemented their diets.

"That was our way of life. We were farming so that we could eat. We never bought food. We ate what we produced," he said.

"It was an exciting time. We would be walking to the fields, singing, calling each other to go work the land because the rain was coming," reminisced 68-year-old Ramokone with a smile.

This was a way of life in most rural parts of the country where communities produced their own food and relied less on buying from local retailers. But changing weather patterns resulting from climate change are slowly bringing an end to this traditional way of life and endangering food security.

Small-scale farmers with fewer resources have been hit hard by unusual weather patterns. Experts predict the trend will continue if nothing is done to mitigate the effects of climate change.

Researcher Johnston, Climate Scientist and Lecturer at the University of Cape Town, noted in an article published by UCT: "The threat of changing rainfall seasons leading to shifting rainfall dates plays havoc with planting dates and crop management. Wide-ranging crop yield reductions may not affect a country with access to grain imports, but many countries with a large subsistence agricultural base face severe food shortages when crops fail."

In March this year, cabinet approved the updated draft of the Nationally Determined Contribution (NDC), the cornerstone of the country's climate change response.

The NDC is South Africa's commitment to the global climate change effort in terms of the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, of which South Africa is a signatory.

Under the Paris Agreement – a legally binding international treaty on climate change adopted by 196 parties at the Conference of the Parties (COP21) in Paris in 2015 – all parties are required to prepare, communicate and maintain successive NDCs every five years. South Africa's first NDC with the UNFCCC was published in October 2015.

South Africa has described the Paris Agreement as "a political landmark" and "a remarkable turning point for climate action,



South Africa has committed to reducing its emissions. Climate change has already affected communities that relied upon traditional small-scale farming

sending a clear signal that a low carbon and climate-resilient world is inevitable".

The Paris Agreement's three fundamental aims are to keep the global average temperature increase "to well below 2 °C above pre-industrial levels and pursue efforts to limit it to 1.5 °C". This will "foster climate resilience and low greenhouse-gas emissions development, without threatening food production and establishing means of finance to achieve these goals".

South Africa's obligations under the Paris Agreement include the mobilisation of financial resources and capacity building to implement the NDCs.

The country is also obliged to ensure that there is institutional memory for the reporting cycles (every five years) and to ensure that there are adequate institutional arrangements for planning, preparing and submitting NDCs every five years.

Barbara Creecy, Minister of Forestry, Fisheries and the Environment, has called for a resolution on the setting of common timeframes for NDCs. Creecy said South Africa has a five-year timeframe, which is in line with Africa's position of not locking in low emissions over a long period.

"The Glasgow outcome should be a package deal that advances the negotiations and all three aspects of the Paris Agreement, namely mitigation, adaptation and the means of implementation of climate action. South Africa stands ready to play a constructive role in the success of COP26," Creecy said.

The department has argued that it already has a well-developed base for mitigating climate change and building climate resilience in its Near-Term Priority Flagship

Programmes, which are strategic, large-scale measures of national significance.

"They are the game-changers in South Africa's climate change response landscape and represent the low-hanging fruit that can potentially catalyse South Africa's long-term climate action."

According to the department, many components of these programmes have been implemented with notable success and signify remarkably bold steps towards a low carbon and climate-resilient economy and society.

"The NCCRP gives effect to the Flagship Programmes and recognises them as an integral part of South Africa's climate change response policy."

Creecy noted the impact of climate change and the country's responsibility towards fighting its implications.

"South Africa is among the many vulnerable developing countries that are already experiencing the impacts of climate change. This is evident from the increased frequency of extreme weather conditions such as floods, droughts and heatwaves that threaten lives, food security and infrastructure," Creecy said.

"It is crucial for South Africa and Africa as a whole, to see adaptation treated in a balanced manner at COP26 and to be on the agenda in Glasgow and implemented thereafter. We hope to use the informal side meetings that take place at COP26 to generate further interest in supporting the country's just transition to a low carbon economy and climate-resilient society," she said.

South Africa is a signatory of the UNFCCC and the Kyoto Protocol, which legally binds developed countries to reduce their greenhouse gas emissions by 5.2% below the

1990 levels by 2012. South Africa signed the 1997 initiative in 2002, and it entered into force in 2005.

Creecy said South Africa's adaptation communication in line with the Paris Agreement outlines five goals, articulates the efforts that are to be implemented, and details the associated costs for the period 2021 to 2030.

"The adaptation communication will enable support for key sectors that are affected by the impact of climate change, including human settlements, agriculture, water and energy. It will also affirm the leadership role which South Africa has played in the international climate regime on adaptation," she said.

Following the adoption of the Paris Agreement, the Southern African Catholic Bishops' Conference through its Parliamentary Liaison Office, noted that South Africa is dealing with a new kind of agreement. "Inconsistencies in law, policy and planning must be rectified; and a balance must be struck between the imperatives of mitigating climate change on the one hand, and adapting to it on the other."

Creecy vowed that South Africa "goes to Glasgow (COP26) with a clear mandate to negotiate for the full implementation of the UNFCCC and the Paris Agreement, including the global goals on mitigation, adaptation and support for developing countries, to avoid the worst impacts of climate change on our people and the environment".

With such determination and zeal, perhaps another generation of subsistence farmers who can depend on the weather patterns will emerge.

GREEN ECONOMY TO CREATE JOBS AND ENHANCE GROWTH

Eskom hopes to unlock R150-billion in green financing from international development agencies to finance its transition from coal to renewable energy

Charles Molele

Investment in the green economy and green technologies will be one of the key topics that the South African government is set to discuss at the COP26 conference in Glasgow, Scotland.

Investors are already reluctant to invest in fossil fuels, posing a huge economic risk for South Africa, Africa and other developing countries. Whether it is cutting energy costs or reducing its carbon

footprint, the pressure for businesses to adopt green practices is high, and it is only going to grow.

According to conservative estimates, most African countries are by 2030 projected to lose between 2% and 5% of gross domestic product to climate change, which will impact heavily on economies.

In a recent weekly newsletter, President Cyril Ramaphosa said South Africa needed to act with urgency to reduce its greenhouse gas emissions and create a low carbon economy.

Ramaphosa warned that the country could face major trade barriers unless it transitions to a low-carbon economy at a much faster pace. The government argues that the green economy opens access to new green financing opportunities – including the possibility of significant job creation. The green industries also form part of the key components of the country's Economic Reconstruction and Recovery Plan.

The Covid-19 economic stimulus packages and recovery plans that

governments across the world are now putting in place have the potential to create a revival that is both green and inclusive. This has the potential to create income opportunities, job creation and growth, at the same time accelerating action on the medium- and long-term environmental goals, nationally and globally.

South Africa is serious in its pursuit of "green industrialisation" by shifting into areas such as green hydrogen and electric vehicle production. The green industries also form part of the key components of