



**TRADE & INDUSTRIAL POLICY STRATEGIES**

**WORKING PAPER**

**A SOUTH AFRICAN PERSPECTIVE  
ON CLIMATE CHANGE: FROM  
A JUST ENERGY TRANSITION  
TO CLIMATE RESILIENT DEVELOPMENT**

**Faizel Ismail**

**October 2022**

**TIPS supports policy development through research and dialogue.**

**Its areas of focus are industrial policy, trade and regional integration, sustainable growth, and a just transition to a sustainable inclusive economy**

**[info@tips.org.za](mailto:info@tips.org.za)**

**+27 12 433 9340**

**[www.tips.org.za](http://www.tips.org.za)**

**Faizel Ismail**

**TIPS Research Fellow**

**Faizel Ismail is a former Ambassador of South Africa to the World Trade Organization and currently Professor and Director of the Nelson Mandela School of Public Governance at the University of Cape Town, South Africa.**

**CONTENTS**

Abbreviations ..... 4

1. Introduction ..... 5

2. Climate resilient development and national development strategies..... 7

3. South Africa’s NDC commitments to a low-carbon economy..... 8

4. Renewable energy and transition to a low-carbon economy ..... 9

5. Climate change adaptation and resilience ..... 11

6. Financing a just transition to renewable energy..... 11

7. How will the EU’s Carbon Border Adjustment Mechanism impact South Africa’s competitiveness and climate resilient development?..... 13

8. Policy recommendations: How can South Africa and BRICS advance a climate resilient development agenda in Africa? ..... 14

    b) Regional integration in Africa ..... 16

    c) Bilateral relations with other developing countries and BRICS ..... 17

References ..... 18

## ABBREVIATIONS

AfCFTA	African Continental Free Trade Area
BRICS	Brazil, Russia, India, China and South Africa
CRD	Climate Resilient Development
CBAM	Carbon Border Adjustment Mechanism
dtic (the)	Department of Trade, Industry and Competition
EC	European Commission
ETS	Emissions Trading Scheme (EU)
EU	European Union
GHG	Greenhouse Gas
HySA	Hydrogen South Africa Strategy
ICE	Internal Combustion engine
IP	Intellectual Property
IPCC	Intergovernmental Panel on Climate Change
JET	Just Economic Transition
LIB	Lithium-ion Battery
NDC	Nationally Determined Contribution
OEMs	Original Equipment Manufacturers
PCC	Presidential Climate Commission
PV	Photovoltaic
REIPPP	Renewable energy Independent Power Producers Programme
SAREM	South African Renewable Energy Master Plan
SDGs	Sustainable Development Goals
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
WTO	World Trade Organization

## 1. INTRODUCTION

The Intergovernmental Panel on Climate Change (IPCC) has been warning the world since its first report that climate change is likely to increase the frequency and magnitude of many extreme events, and will certainly increase the risk of slow-onset events such as sea level rise and drought. The IPCC Sixth Assessment report states that Sub-Saharan Africa has seen increased incidences of heat waves, heavy rainfall, fires and droughts, which will continue to affect livelihoods, agriculture, water systems and ecosystems, requiring rapid, adaptation and transformational change (IPCC, 2022). These trends led the IPCC to state that “Africa has contributed among the least to greenhouse gas emissions, yet key development sectors have already experienced widespread loss and damage attributable to anthropogenic climate change, including biodiversity loss, water shortages, reduced food production, loss of lives and reduced economic growth” (IPCC, 2022).

There is evidence that extreme weather events in South Africa are increasing, with heat wave conditions found to be more likely, dry spell durations lengthening slightly and rainfall intensity increasing. The storm in South Africa’s KwaZulu-Natal province in April 2022, which delivered close to an entire year’s usual rainfall in 48 hours, took meteorologists by surprise and has been blamed by experts on climate change. The flood that swept Durban and other coastal parts of the province in the second week of April 2022 left more than 440 people dead, more than 40 thousand displaced; 630 schools damaged alone with 23 hospitals and 34 clinics (Mail & Guardian, 2022).

According to some researchers, South Africa’s climate policy has been “lauded globally as one of the few countries that have conducted nation-level, ongoing social dialogue to develop a vision for a just transition (Mohamed and Montmasson-Clair, 2022). A recent collection of research papers on the just transition. *A just transition to a low carbon future in South Africa*, has brought much of this important work to the fore (Xaba and Fakir, 2022). The conceptual framework used by most of the analysts is based on the Just Energy Transition (JET). The JET can be traced to the debates by the union movement in the 1990s when North American workers began to tie a just transition to the job losses faced by workers due to environmental protection (Smith, 2017). The concept was broadened by the International Labour Organization to include plans for “socially and environmentally sustainable jobs, sectors and economies” (Smith, 2017). The concept of JET recognises the importance of a wider discourse beyond a narrow economic transition from fossil fuel to a low-carbon economy that requires investment in renewables. Some researchers of the JET include the need for inclusiveness and equity (Nzimande and Khambule, 2022), while others recognise the need for norms and values that include social justice and the need to include “not just impacted workers but all vulnerable stakeholders who may be directly or indirectly impacted” (Mohamed and Montmasson-Clair, 2022). Mohamed and Montmasson-Clair recognise that South Africa’s approach to climate change through its just economic transition policy framework has been relatively far-reaching and inclusive, “however, climate action still rests largely on

mitigation” and does not include adaptation. The authors also offer a profound insight that “South Africa’s JET does not yet address the roots of vulnerabilities and resultant inequalities”.

This paper suggests that part of the reason for this is the very limitations of the conceptual framework offered by JET as its starting point and that the end point is the transition from a high-carbon to a low-carbon economy. The JET framework does not include critical areas such as adaptation and resilience. More importantly, it does not address the issue of mainstreaming climate change in the national development strategies of developing countries. This paper argues that the JET approach by both academic observers and policymakers may suffer from being too narrow if the just energy transition is adopted exclusively to respond to climate change. This limitation is indeed recognised by several of the authors included in the Xaba and Fakir (2022) compilation. The Presidential Climate Commission (PCC), launched in 2019, has embarked on a broader campaign to listen to different stakeholders and has already emerged with a range of policy proposals that go beyond the JET and could build towards a Climate Resilient Development Strategy that mainstreams climate change in South Africa’s National Development Plan and Sustainable Development Goals (SDGs).

This paper argues that South Africa and other African countries should go beyond the narrow limits of the JET framework, as the analysis and policies that flow from this will be better served by adopting Climate Resilient Development (CRD) as a more holistic concept. The concept of CRD was discussed comprehensively in the IPCC Fifth Assessment Report (IPCC, 2014) and used in the IPCC Sixth Assessment Report (IPCC, 2022). This paper also argues that South Africa’s climate change policy and engagement should go beyond advancing its transition to a low carbon economy, and should include adaptation, green industrialisation, and resilience. In addition, South Africa, should have a wider frame and play a leadership role on the African continent to build co-operation and regional strategies to strengthen renewable energy infrastructure and green industrial value chains, adaptation and resilience. South Africa as a member of the BRICS (Brazil, Russia, India, China and South Africa) group of emerging economies can also use this forum to share experiences and technologies, access to development finance and to engage in the wider multilateral forums of the World Trade Organization (WTO) and the United Nations Framework Convention on Climate Change (UNFCCC) for a Global Green New Deal.

This paper argues that South Africa needs to mainstream climate change into its National Development Plan (and SDGs), by advancing i) CRD, through several pathways (section 2), including; ii) South Africa’s Nationally Determined Contribution (NDC) commitment to a low-carbon economy (section 3); iii) Renewable energy and transition to a low-carbon economy (section 4); iv) Climate change adaptation and resilience (section 5) and; v) Financing a just transition to renewable energy (section 6). Section 7 discusses the impact of the European Union’s (EU’s) Carbon Border Adjustment Mechanism (CBAM) on South Africa’s competitiveness and climate resilient development. Section 8 discusses the impact of climate change on Africa, and concludes with some policy recommendations on what can South Africa/BRICS (Brazil, Russia, India, China and South Africa) and other developing countries can do to support their strategies towards climate resilient development in a way that is socially just and fair.

## 2. CLIMATE RESILIENT DEVELOPMENT AND NATIONAL DEVELOPMENT STRATEGIES

The IPCC Sixth Assessment Report defines CRD as “a process of implementing greenhouse gas mitigation and adaptation measures to support sustainable development for all” (IPCC, 2022, Chapter 9). In this report, both climate change adaptation and resilience are added to the concept of sustainable development. In this way climate change responses are mainstreamed into sustainable development through the concept of Climate Resilient Development (IPCC, 2022). The report argues that climate-resilient pathways will generally require transformations – beyond incremental approaches – to ensure sustainable development. Incremental responses to climate change address immediate and anticipated threats based on current practices, management approaches, or technical strategies. Transformative responses, in contrast, involve innovations that contribute to systemic changes by challenging some of the assumptions that underlie business-as-usual approaches (IPCC, 2022, Chapter 20).

This definition of Climate Resilient Development thus requires the integration or mainstreaming of climate change responses (mitigation and adaptation and resilience) into national development strategies. This approach will ensure that the NDCs of developing countries will be integrated into their development strategies in a way that supports transformation of their economic and social systems. CRD requires an all-of-government approach that builds institutional co-ordination and integration through inclusive processes of governance. This approach will integrate development objectives and climate change responses (mitigation, adaptation and resilience). Citizen-led climate interventions and private sector participation should also be incorporated in the governance framework for the decision-making and implementation of CRD. In South Africa, the National Committee on Climate Change, the Intergovernmental Panel on Climate Change and the Presidential Climate Change Commission have been established to enhance intergovernmental and multisectoral co-ordination on climate action. The South African Cabinet approved its Climate Bill in early 2022 and has submitted it for debate and approval in its national Parliament. The bill provides for “a co-ordinated and integrated response by the economy and society to climate change and its impacts in accordance with the principles of cooperative governance” (South Africa Climate Change Bill, 2022).

In the following section the paper proceeds to discuss the implementation of South Africa’s NDC commitments.

### **3. SOUTH AFRICA'S NDC COMMITMENTS TO A LOW-CARBON ECONOMY**

South Africa is a signatory to the Paris Accord of the UNFCCC COP21 held in December 2015. South Africa undertook legally binding commitments as part of the international community to limit global warming to well below two degrees and preferably below 1.5 degrees Celsius compared to pre-industrial levels. Countries agreed to update their commitments every five years. In October 2021, South Africa submitted its updated Nationally Determined Contribution to reduce greenhouse gases – with its range of reduction having a two-degree temperature increase as its upper limit and its lower limit being compatible with keeping its temperature increase to 1.5 degrees Celsius. South Africa argued at the UNFCCC COP26 held in Glasgow, in November 2021, that its commitments within this range would depend on the availability of financing, investment, technological support and capacity building that South Africa, as a developing country, was able to access from developed countries. The Paris Agreement affirmed that developed countries had an obligation to assist developing countries to meet their climate mitigation targets.

The South African Cabinet approved its Climate Bill in early 2022 and has submitted it for debate and approval in its national Parliament. The Bill sets sectoral emission targets and mechanisms to monitor compliance of these lower emission pathways. The National Treasury has also introduced a carbon tax and proposals for the development of a Carbon Budget for different sectors (National Treasury, 2022). Companies that emit greenhouse gases above their allocated limits (carbon budget) would be penalised by having to pay a predetermined carbon tax.

South Africa's Carbon Tax Act No. 15 of 2019 that came into force on 1 June 2019. It gives effect to the polluter-pays-principle and helps to ensure that firms and consumers take these costs into account in their future production, consumption and investment decisions. The Act is also intended to assist companies to reduce greenhouse gas (GHG) emissions and thus ensure that South Africa meets its NDC commitments undertaken in the 2015 Paris Agreement.

Eskom generates 88% of South Africa's energy from coal fired power stations and is responsible for over 40% of its GHG emissions. South Africa has begun to turn this major challenge into an opportunity to transition from coal to renewable energy and access climate finance to fund this transition. The approach taken is to study how power stations scheduled for decommissioning can be repurposed for reskilling and retraining of workers and the development of new local industries (Nkhonjera, 2022). For example, in the case of the Komati Power, Eskom is piloting the repowering of a station on existing Eskom land and the installation of an agrivoltaics plant and a microgrid assembly plant. Eskom is completing the engineering studies to confirm the capacities of photovoltaic (PV) and battery storage that will be installed in the next 12 to 28 months (Creecy, 2021a).

South Africa's response to climate change has moved beyond transitioning from coal powered energy to renewables. It also includes the building of capabilities in renewable energy technologies and green industrialisation. This is discussed in the following section.

#### 4. RENEWABLE ENERGY AND TRANSITION TO A LOW-CARBON ECONOMY

There are three areas where the government would utilise the US\$8.5 billion funds to be contributed by its major development partners, as they announced at COP26 in Glasgow: (a) Eskom transition; (b) development of a green hydrogen economy; and (c) research and development to support the development of an e-vehicle industry in South Africa.

In his State of the Nation Address on 10 February 2022, South African President Cyril Ramaphosa announced several measures to increase the availability of electricity to address the shortfall of around 4 000MW that the country currently faces. Most of this shortfall will be made up by the revitalisation of South Africa's Renewable Energy Independent Power Producers Programme (REIPPP). In 2021, the President allowed the private sector to produce 100MW of Renewable energy without a licence. Since then, there has been an explosion of private sector initiatives. The fifth round of the REIPPP will see 25 projects producing 2.6GW of energy. Anglo American announced that it had partnered with EDF Renewables to develop a 5GW renewable energy ecosystem in South Africa over the next decade (Planting, 2022).

The Nelson Mandela School of Public Governance held a webinar on renewable energy on 30 September 2021 (NMSPG, 2022). The General Manager (Sub-Saharan Africa) of the Norwegian renewable energy company Scatec, Jan Fourie stated that solar energy is the lowest-cost energy source across the sun-rich regions globally, with the levelized cost coming down 85% since 2010. He stated that PV energy and/or wind with battery storage now provide stable renewable energy power. Scatec has obtained a contract under the South African's REIPPP programme to build a solar, wind and battery storage project which, when completed, will be one of the largest PV and battery plants in the world. Scatec hopes to share this experience with other sub-regions of the African continent. The REIPPP was started around 2010 in South Africa, with the key objective of getting private sector investment in infrastructure development. Gerhard Fourie, the representative of the Department of Trade, Industry and Competition (the dtic), noted that renewable energies also afford a significant opportunity for industrialising by manufacturing components used in the renewable energy space. Localisation requirements were thus built into government procurements processes to create jobs, develop local talent and skills, and alleviate poverty and inequality. Mandisa Mkhize presented on the South African Renewable Energy Master Plan (SAREM). The SAREM process aims to identify opportunities that will develop industrial capabilities in the renewable energy sector. SAREM is an implementation plan for driving industrialisation through the renewable energy sector and its value chain (GreenCape, 2021).

Gaylor Montmasson-Clair argued that there were significant opportunities for developing the lithium-ion battery (LIB) value chain in South Africa (Montmasson-Clair, G. et al, 2021). South Africa is developing substantial research and development capabilities in LIB, spanning the entire value chain from precursor development to cell/battery fabrication to battery recycling. Africa hosts almost all the LIB-relevant minerals, creating the opportunity to build a LIB regional value chain. Battery manufacturing based on imported cells is a vibrant industry in South Africa. Numerous firms have developed intellectual property (IP) and expertise in the manufacturing of



specific components, parts and systems, as well as the assembly of battery packs. An industrial strategy to manufacture lithium-ion technology batteries requires co-operation from mineral resource rich countries such as the Democratic Republic of the Congo (cobalt) and Zimbabwe (lithium) and South Africa (nickel). Partnerships across the continent are therefore essential to developing regional value chains that ensure the gains are shared across the continent. Regional approaches to drive the strategic shift to renewable energy can be driven by the African Continental Free Trade Area (AfCFTA) Secretariat (Montmasson-Clair, et al, 2021).

The government has developed the Hydrogen South Africa Strategy (HySA) and Hydrogen Society Roadmap for the next 10 years, and launched a green hydrogen pipeline in the Northern Cape valued at about 270 billion rands (US\$17.8 billion) (Vecchiatto, 2022). Minister of Trade, Industry and Competition Ebrahim Patel has indicated that the dtic will table a draft Green Hydrogen Commercialisation Strategy to the South African Cabinet for guidance (Patel, 2022). Green hydrogen produced from water and electricity generated from renewables will assist South Africa to meet emission-reduction goals, especially in reducing greenhouse gas emissions in its steel industry. Germany has identified South Africa as a primary source of green hydrogen. South Africa is a key source of metals, such as platinum group metals, needed to produce electrolysers, the kit that produces hydrogen from water and electricity.

The automobile industry is as complicated as the coal transition. The EU has decided that, from 2035, no internal combustion engines can be imported into the EU. All the South African-produced vehicles at present have internal combustion engines, meaning that South Africa had to transition its automobile industry. The dtic has launched a green paper to consult with stakeholders on transitioning the industry to e-vehicles and intends to launch an Electric Vehicles Roadmap towards the end of October 2022. Minister Patel has pointed out that South Africa has made progress in several areas (Patel, 2022). Towards the end of 2021, Toyota launched the first hybrid vehicle manufactured in South Africa. Sasol and one large car maker have launched a partnership to explore fuel-cell technologies across the N3 corridor between Johannesburg and Durban. South Africa's reserves of platinum group metals can be used as a catalyst in green hydrogen fuel-cell and its vanadium reserves can be used in battery storage technologies. Toyota launched the first hybrid vehicle manufactured in South Africa in December 2021. President Ramaphosa in his February 2022 State of the Nation Address stated that investments in electric vehicles and hydrogen will assist South Africa meet its mitigation commitments. South Africa will also expand its investments in the mining industry in strategic minerals required for clean energy, such as platinum, vanadium, cobalt, copper, manganese and lithium (Ramaphosa, 2022a).

South Africa's climate change response strategies also include adaptation to climate change in agriculture and the building of ecological and hard infrastructure (water, roads, rail).

This is discussed briefly in the following section.

## 5. CLIMATE CHANGE ADAPTATION AND RESILIENCE

South Africa has also adopted a National Adaptation Strategy with a view to mainstreaming climate resilience into municipal planning and budgeting. South Africa's approach to a low carbon economy and climate resilient society is being integrated into its national development strategy (Creecy, 2022).

The South African National Planning Commission's National Water Security Framework highlights that South Africa is water insecure and that the country's water crisis can be attributed to insufficient water infrastructure maintenance and investment, recurrent droughts driven by climatic variability and change, and inequities in access to water and sanitation. This report also notes that about three million South Africans do not have access to basic water supply service and 14.1 million people do not have access to safe sanitation (Beukman and Reeler, 2021). Beukman and Reeler together with the WWF authored a policy brief for the PCC in which they argue that South Africa's adaptation strategies to climate change will require not only the building of hard infrastructure (water, energy, roads, rail and ports, telecoms) to support agricultural production and trade, but also ecological infrastructure to both protect biodiversity systems and to strengthen hard infrastructure (Beukman and Reeler, 2021).

Minister of Forestry, Fisheries and the Environment Barbara Creecy has argued that South Africa's just transition towards a low-carbon, climate resilient economy and society must happen in a manner that does not impede socio-economic development. Such a transition has to be least disruptive to the lives of workers and communities and must involve such groups in the search for sustainable pathways. President Ramaphosa has thus established the PCC to facilitate national dialogue of all affected sectors and obtain buy-in by all stakeholders. The role of the Commission is to bring together divergent interest groups in society to reach as close to sufficient consensus as possible on the very complicated issues that would confront all of them as they transitioned to a climate-resilient society and a low-carbon economy (Creecy, 2021a). Civil society coalitions and alliances have called for deepening just transitions by addressing structural economic reforms. The Climate Justice Coalition, for example, seeks to foster "a transformative climate justice agenda" and advocates for a "vision of climate justice which advances environmental, energy, gender, racial, immigrant, climate and economic justice together" (Mohamed and Montmasson-Clair, 2022).

The question of financing the just transition is a critical issue that the South African government and the private sector have been discussing over the past few years, especially as Eskom, the largest state-owned enterprise has been in serious financial crisis.

This issue is briefly discussed in the following section.

## 6. FINANCING A JUST TRANSITION TO RENEWABLE ENERGY

Studies on South Africa's transition from coal-based energy have shown that implementing climate policy measures and rapidly advancing low-carbon technology could lead to write-downs of carbon-intensive assets, resulting in the risk of stranded assets and high debts (*Huxam et al,*

2019). A study has indicated that South Africa faces a “transition risk” from its existing Paris commitments estimated at R1.8 trillion in potentially decommissioned assets, an amount equal to about 60% of its GDP (Huxam et al, 2019). At the COP26 UN Climate Change Conference, held in Glasgow, Scotland, in November 2021, South Africa began negotiations with its developed country partners to provide a package of loans to the value of US\$8.5 billion (R131 billion). The parties, including the United Kingdom, United States (US), France, Germany, and EU member states agreed in a political declaration that the funding will be utilised as part of South Africa’s just transition for targeted programmes of reskilling and upskilling and creating employment opportunities for the affected workers, women and youth. A negotiating team was appointed to decide on the investment and financing plans. South Africa appointed Daniel Mminele, an ex-Reserve Bank Deputy Governor, to lead its negotiations on financing climate change.

The challenge of unpacking the climate finance agreement announced at COP26 is ongoing, and South Africa is still uncertain about the contents of the package (as at June 2022). At a conference in Cape Town in June 2022, John Morton, the US Treasury’s climate counsellor explained that the US envisaged the US\$8.5 billion package as follows: “there are a range of instruments from a variety of sources available but in some cases subject to the availability of bankable projects or appropriations” (Erasmus, 2022). He then went on to state that “we envisage that the US contribution to the US\$ dollar contribution could include loans, equity investments, grant finance for technical assistance, feasibility studies and pilot projects from a variety of US agencies”.

There is no agreed definition of “climate finance” in the UNFCCC (Rodriguez and Rosales, 2021). Thus, OECD countries report on non-concessional funding as part of their contribution to their contribution to the US\$100 billion dollars. Recent reports indicate that non-grant instruments and loans make up 70% to 80% of reported public climate finance. This was criticised by developing countries at UNFCCC meetings in May-June 2021 as members felt that commercial loans, guarantees and export credits should not be counted as finance towards the \$100 billion goal. The authors state that ‘about 40% of the public financial resources provided to developing countries for climate finance are non-concessional loans, semi-concessional loans, equities, or instruments of the like, meaning loans in commercial terms’ (Rodriguez and Rosales, 2021).

The ongoing discussions on financing a just transition highlight the importance of understanding the development finance or “climate finance” packages offered by OECD countries. The Eskom climate finance offering that was made to South Africa at the Glasgow UNFCCC meeting in November 2021 is an important case study. It also suggests that developing countries will need to unpack how much of these climate finance offerings are “project finance” that is packaged as “climate finance” or private finance that is “greenwashed”<sup>1</sup>. Another challenge that South Africa has to consider is how the new Green New Deal of the European Union – the CBAM - will impact on its exports and its industrial sector competitiveness. This is discussed in the follow section.

---

<sup>1</sup> “Greenwashing” refers to a situation where companies or countries spend more time and effort marketing their products or policies as environmentally friendly than on actually advancing environmental interests.

## **7. HOW WILL THE EU'S CARBON BORDER ADJUSTMENT MECHANISM IMPACT SOUTH AFRICA'S COMPETITIVENESS AND CLIMATE RESILIENT DEVELOPMENT?**

The European Commission (EC) Fit for 55% package (55% reduction in carbon emissions by 2030, and net zero emissions by 2050) includes its proposal for a Carbon Border Adjustment Mechanism. The EC has made an EU CBAM a high political priority under the European Green Deal (EC, 2019; EC, 2020a; EC, 2020b; EC, 2021). The CBAM is a climate measure that aims to prevent the risk of carbon leakage and support the EU's increased ambition on climate mitigation. Carbon leakage occurs when industries relocate to jurisdictions with weaker climate change policies or stay in their domestic market and lose domestic and foreign market share due to increased carbon prices. The measure aims to reduce the risk of "carbon leakage" by requiring exporters to the EU to pay a carbon price at the border equivalent to what EU producers face under the EU Emissions Trading Scheme (ETS). The ETS is a GHG cap and trade scheme contributing to emissions reduction targets by setting a cap on the maximum level of emissions for a number of sectors and allows the trading of emission permits at a market-generated price (Monaisa, 2022). The CBAM will have a transitional period between 2023 and 2026. The proposal covers imported goods from five industries: cement, electricity, fertilisers, iron and steel, and aluminium (EC, 2021). Its current scope covers only direct emissions, i.e. emissions arising from production processes. Climate vulnerable countries in Africa affected include Mozambique (aluminium and steel); Ghana (aluminium); Cameroon (aluminium); Zimbabwe (steel); Zambia (steel); Nigeria (steel); Algeria (fertilisers); Libya (fertilisers); Egypt (fertilisers); Tunisia (fertilisers); Morocco (electricity); and South Africa (steel, aluminium) (IEEP, 2021; Leukers, 2022).

However, the CBAM has received a number of criticisms from developing countries. The critique has focused on at least two issues: the inconsistency of the measures with multilateralism, UNFCCC and WTO principles, and the negative impact of common but differentiated responsibilities on production and employment in developing countries and increased inequality. These reactions criticise the measure as "green trade protectionism", and for being inconsistent with the UNFCCC principle of "common but differentiated responsibilities and respective capabilities". Jannick Leukers argues that the EU policy violates UNFCCC principles by establishing an incentive to enact carbon prices equivalent to the ones paid in the EU, a region which is among the most affluent and historically most responsible for climate change (Leukers, 2022). Leukers argues that the EU CBAM could increase inequalities in South Africa. Leukers finds that there are "two routes through which adverse effects result: i) by reducing exports in targeted sectors leading to lay-offs, and ii) by motivating higher domestic carbon prices which may be regressive".

South Africa is one of the largest economies on the African continent and thus has a larger responsibility to drive the process of regional integration in a manner that is developmental and mutually beneficial (Ismail, 2021). South Africa can support the building of agency among African countries by negotiating with the OECD members and collaborating with its larger emerging economies in the BRICS to respond to challenges of climate change and advance a Climate Resilient Development programme on the African continent. The discussion proceeds to this issue in the following section.

## **8. POLICY RECOMMENDATIONS: HOW CAN SOUTH AFRICA AND BRICS ADVANCE A CLIMATE RESILIENT DEVELOPMENT AGENDA IN AFRICA?**

President Ramaphosa, in his address to the Committee of African Heads of State and Government on Climate Change, held on 6 February 2022, stated that climate change impacts are costing African economies between 3% and 5% of their GDPs. Again, although African countries are not responsible for causing climate change, they bear the brunt of its impacts. He called for African countries to unite and speak with one voice by building a Common African Position at the UNFCCC COP27 to be held in Sharm el-Sheikh in Egypt) in November 2022. He called for the principle of Common but Differentiated Responsibilities and Respective Capabilities and Africa's special needs and circumstances to be recognised (Ramaphosa, 2022b). Ramaphosa argued that it is the right of all African and other developing countries to obtain support in the form of finance, technology and capacity building for their transition to a low-carbon economy and society (Ramaphosa, 2022a).

Climate negotiators, at the Bonn UNFCCC negotiations held in June 2022 in preparation for November's COP27 summit in Egypt, report that progress towards meeting developing country concerns are very much on the backburner. The UN Ambassador of the Caribbean nations of Antigua and Barbuda, Condod Hunte, who is the lead negotiator for the Alliance of Small Island States stated that the group of 39 members had not received assurances that "climate finance will be delivered on scale or speed" (Business Times, 2022). Climate negotiators from vulnerable developing countries have been frustrated at the slow pace of the negotiations on their concerns. A report by the Vulnerable Twenty Group of 55 economies (including Kenya and South Sudan), hit most severely by climate change, points out that they had lost about 20% of their wealth on average (about US\$525 billion) over the past two decades due to the impact of climate change (Business Times, 2022).

What can South Africa/BRICS and other developing countries do to support the transition of African countries towards a Climate Resilient Development agenda that is socially just and fair?

There are at least three levels of engagement where South Africa and other African countries can advance their own interests and also contribute to the global effort to transition to a low carbon economy and also advance a Climate Resilient Development agenda in Africa; a) Global governance; b) Regional integration in Africa and c) Bilateral relations between the South and the North. South Africa and Africa's key messages in each of these spheres are summarised below:

### **a) Global governance**

Global rules should be negotiated and agreed multilaterally, rather than seeking punitive measures. Developing and developed countries should work toward a positive trade and environment agenda that focusses on building developing countries capacity to advance their development and climate goals. These should include the following approaches:

First, developed countries should recognise the principle of Special and Differential Treatment and Common but Differentiated Responsibilities, as agreed in various WTO agreements and UNFCCC conferences. Together with these principles all trade and climate agreements negotiated multilaterally should provide adequate policy and fiscal space to the developing countries to design their integrated trade-environment-development strategies.

Second, the Environmental Goods and Services Agreement being negotiated in the WTO should be inclusive and multilateral, rather than plurilateral and exclusive. Since 2014, 14 developed countries and two developing countries have been negotiating an Environmental Goods and Services agreement in the WTO. However, this negotiation is very controversial. There is no consensus on the definition of environmental goods. Many of the OECD identified list of environmental goods are from high CO<sub>2</sub> emitting industries, such as iron and steel and aluminium (UNCTAD, 2021).

Third, the WTO can use the example of the Doha Ministerial Declaration on the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement and Public Health (WTO, 2022) to also expand TRIPS flexibilities for developing countries in relation to climate related goods and services. The UNFCCC Paris Agreement set a vision of fully realising technology development and transfer for both improving resilience to climate change and reducing GHG emissions. To provide developing countries with additional policy space to secure their climate and environment development initiatives, the WTO could agree on a time-limited climate waiver together with a “peace clause” for disputes on such measures.

Fourth, developed countries such as the EU and the US that are considering applying CBAMs against the imports from developing countries should rather support a positive trade agenda to encourage and assist developing countries to implement their mitigation commitments and adaptation development strategies. CBAMs are tariffs on imports, that are widely regarded as unilateral and coercive, that will raise the costs of production of a large number of products from developing countries, reducing their global competitiveness. The concern of developing countries is that almost all their current production, based on fossil fuel energy, from steel and aluminium to agriculture and mining, will become uncompetitive, if they are forced to make a drastic transition to the low carbon process and production methods required by developed countries.

Fifth, developed countries that are mainly responsible for historical emissions have a responsibility to make good on their promises, made in Copenhagen (COP15), for US\$100 billion of climate finance per year by 2023 (the original target agreed at Copenhagen was to be met in 2020 but not met) and to increase this to US\$750 billion a year by 2030 (Barbara Creecy, 2021b). These funds are required by developing countries to adapt to climate change and transition to low-carbon energy infrastructure and production systems. A study conducted on South Africa’s just transition puts the transition risk to implement its Paris commitments at an estimated US\$120 billion (R1.8 trillion) – or 60% of its GDP – in potentially decommissioned assets (Huxam et al, 2019). The Paris Agreement made promises to developing countries to provide them with

capacity building. These funds could support developing countries to build their infrastructure for climate resilience and their competitiveness. Providing funding and technical support to developing countries to develop feasibility projects on renewable energy will assist them to access climate finance. A Trade and Environment Fund could be established by the WTO and other multilateral institutions to provide additional finance to developing countries to source critical green technologies and build climate-smart trade infrastructure.

## **b) Regional integration in Africa**

There are at least three ways in which South Africa could work with its neighbours to implement the AfCFTA) in a manner that ensures that regional integration supports the transformative industrialisation of Africa and facilitates a transition to a low-carbon world economy. South Africa and other African countries should adopt a “developmental regionalism” approach to the AfCFTA (Ismail, 2021). They should advance at least three strategic objectives: First, the smaller countries in Africa – 34 Least Developed Countries, six Small Island Development States and 16 Landlocked countries – should be provided with Special and Differential Treatment in their liberalisation commitments, allowing them more time to adjust.

Second, the larger African countries should lead the process of building regional renewable energy infrastructure. This process should be accompanied by identifying components in the renewable energy technologies and infrastructure that could be manufactured in Africa. A just transition to renewables, particularly for those countries, such as South Africa, that require a shift away from coal and other fossil fuel-based energy, would need to provide adjustment support for workers and communities.

Third, South Africa and its neighbours should collaborate in building regional climate resilient infrastructure, in climate smart agriculture and water resources, to facilitate adaptation of African countries to climate change.

Fourth, African countries should maintain the momentum on advancing an ambitious process of building regional value chains in priority sectors, such as i) cotton, textiles and apparel; ii) agriculture and agro-processing; iii) vaccines and pharmaceuticals products, iv) automotive vehicle assembly and components; and v) the digital economy. In each of these areas African countries should leapfrog into new sustainable technologies required by the new trends towards a “sustainability shift” that is driving consumption patterns in the main Northern markets, such as the EU and the US, and embark on green industrialisation. For example, EU and US consumers are shifting towards sustainable cotton and fibres in apparel and in autos most of the original equipment manufacturers (OEMs) have signalled that they will stop importing cars with internal combustion engines (ICEs) as from 2035. Africa has the opportunity develop its own green industries and to leapfrog and become a producer of environmental goods rather than just a consumer of products produced elsewhere.

### **c) Bilateral relations with other developing countries and BRICS**

There are at least three ways in which African countries can collaborate to support the transition to a global low carbon economy and society. First, the African Group can work together with other developing countries to restore the integrity of the WTO and insist on the strengthening of the rules-based trading system that is fair, just and development oriented. African countries can promote the idea of a Global Green New Deal, promoted by the United Nations Conference on Trade and Development (UNCTAD), to build a global consensus on a developmental outcome in the current crisis of governance in the spheres of trade, finance and climate change and their relationship to each other (Gallagher and Kozul-Wright, 2019). Second, African countries can share experiences on a just transition from coal and other fossil fuel-based energy to renewable energies, with other developing countries. They can conduct peer reviews to share experiences and act together with other developing countries in the UNFCCC to negotiate fair and just transition mitigation commitments. Third, African countries, can collaborate with BRICS countries and utilise their financing instruments, such as the New Development Bank (or BRICS Bank), Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund to provide concessional financing for investment in Africa's cross-border infrastructure projects to reduce transport and logistics costs, without increasing Africa's unsustainable debt burden.



## REFERENCES

- Creecy, B. 2022. Minister Barbara Creecy. Launch of a Research Publication: A just transition to a low carbon future in South Africa. 24 February 2022. Available at: <https://www.gov.za/speeches/minister-barbara-creecy-launch-research-publication-24-feb-2022-0000-0>.
- Creecy, B. 2021a. Speech to Parliamentary Committee Meeting. See Parliamentary Monitoring Group, 11 March 2021 <https://pmg.org.za/committee-meeting/34548/>.
- Creecy, B. 2021b Minister Barbara Creecy on Glasgow International Climate Talks. 22 October 2021. Available at: <https://www.gov.za/speeches/minister-barbara-creecy-glasgow-international-climate-talks-22-oct-2021-0000#:~:text=At%20the%20Ministerial%20Meeting%20hosted,billion%20a%20year%20by%202030>.
- Beukman, R and Reeler, J. 2021. A Just Transition in the Water Sector. Policy Brief for the Presidential Climate Commission. WWF. South Africa. October 2021.
- Business Times. 2022. UN climate talks fail to make progress. Business Times. 19 June 2022.
- Erasmus, D. 2022. Energy package intended only for renewables, US Treasury says. Business Day. 8 June 2022.
- EC. 2019. A European Green Deal. European Commission. Available at: [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_enhttps://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1576150542719&uri=COM%3A2019%3A640%3AFIN](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_enhttps://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1576150542719&uri=COM%3A2019%3A640%3AFIN). (Accessed 16 June 2022).
- EC. 2020a. EU Green Deal (carbon border adjustment mechanism). European Commission. Available at: [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12228-EU-Green-Deal-carbon-border-adjustment-mechanism-\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12228-EU-Green-Deal-carbon-border-adjustment-mechanism-_en) (Accessed 16 June 2022).
- EC. 2020b. Impact Assessment Report – Accompanying the document – Proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism. European Commission.
- EC. 2021. European Green Deal: Commission proposes transformation of EU economy and society to meet climate ambitions. European Commission. Press Release. 14 July 2021. [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_3541](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541) (Accessed 16 June 2022).
- Gallagher, K. and Kozul-Wright, R. 2019. A New Multilateralism for Shared Prosperity: Geneva Principles for a Global Green New Deal. UNCTAD, Geneva, and Boston University Global Development Policy Center, 2019.
- GreenCape. 2021. The South African Renewable Energy Master Plan: Emerging actions discussion document.
- Huxham, M., Anwar, M. and Nelson, D. 2019. Understanding the Impact of a low carbon transition on South Africa. CPI Energy Finance Report. March 2019.
- IPCC. 2014. Fifth Assessment Report. Chapter 20. Climate-resilient pathways: adaptation, mitigation, and sustainable development. F. Denton, T. Wilbanks / Intergovernmental Panel on Climate Change, 2014.

IPCC. 2022: Sixth Assessment Report. Chapter 9: Africa. In: *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press.

IEE. 2021. What can Least Developed Countries and other climate vulnerable countries expect from the EU Carbon Border Adjustment Mechanism (CBAM)? Institute for European Environmental Policy. 25 June 2021. Available at: <https://ieep.eu/publications/what-can-climate-vulnerable-countries-expect-from-the-cbam>

Ismail, F. 2021. *The AfCFTA and Developmental Regionalism. A Handbook*. Trade & Industrial Policy Strategies (TIPS). Pretoria. April 2021. Available at: <https://www.tips.org.za/research-archive/books/item/4121-the-african-continental-free-trade-area-afcfta-and-developmental-regionalism-a-handbook>

Leukers, J. 2022. Border Carbon Adjustment and Inequality Distributional Equity Concerns About the EU CBAM's Impacts in South Africa. Dissertation. Master of Science in Environmental Management and Policy. University of Lund, Sweden. May 2022.

National Treasury, 2022. Presentation to Parliamentary Committee. Climate Change Bill. Minister and Department of Forestry, Fisheries and Environment Briefing. 11 March 2022. Available at: <https://pmg.org.za/committee-meeting/34548/?via=homepage-feature-card>

NMSPG. 2022. Webinar – The AfCFTA and Opportunities for Renewable Energy and Industrial Transformation. Policy Brief. The AfCFTA and Transformative Industrialisation Webinar Series. Nelson Mandela School of Public Governance. Available at: <http://www.mandelaschool.uct.ac.za/news/afcfta-and-transformative-industrialisation-webinar-series>.

Nkhonjera, M. 2022. Chapter 6: Green industrial development under the African Continental Free Trade Area (AfCFTA): Positioning South Africa's renewable energy manufacturing. In Xaba, N. and Faki, S. (eds) (2022) *A Just Transition to a Low Carbon Future in South Africa*. A MISTRA Publication. Mapungubwe Institute for Strategic Reflection. Johannesburg.

Nzimande, B. and Khambule, H. 2022. From Climate change to a just energy transition. In Xaba, N. and Faki, S. (eds) (2022) *A Just Transition to a Low Carbon Future in South Africa*. A MISTRA Publication. Mapungubwe Institute for Strategic Reflection. Johannesburg.

Mohamed, N. and Montmasson-Clair, G. 2022. Applying a normative framework to assess the just transition to a net zero carbon society in South Africa. In Xaba, N. and Faki, S. (eds) (2022). *A Just Transition to a Low Carbon Future in South Africa*. A MISTRA Publication. Mapungubwe Institute for Strategic Reflection. Johannesburg.

Montmasson-Clair, G., Moshikaro, L. and Lerato Monaisa, L. 2021. Opportunities to develop the lithium-ion battery value chain in South Africa. TIPS Policy Brief. Available at: <https://www.tips.org.za/policy-briefs/item/4013-opportunities-to-development-the-lithium-ion-battery-value-chain-in-south-africa>

Monaisa, L. 2021. European Green Deal: The Carbon Border Adjustment Mechanism and implications for South African and European trade. Trade and Industrial Policy Strategies. Policy Brief 6/2021. Available at: <https://www.tips.org.za/policy-briefs/item/4293-european-green-deal-the-carbon-border-adjustment-mechanism-and-implications-for-south-african-and-european-union-trade>.

Patel, E. 2021. Budget Vote 2021. Ebrahim Patel, Ministry of Trade, Industry and Competition of South Africa. 18 May 2021. Available at: <http://www.thedtic.gov.za/budget-vote-2021-ebrahim-patel-minister-of-trade-industry-and-competition-18-may-2021-parliament-cape-town/>

Patel, E. 2022. Budget Vote 2022. Ebrahim Patel, Ministry of Trade, Industry and Competition of South Africa. 20 May 2022, Available at: <http://www.thedtic.gov.za/budget-vote-speech-by-minister-of-trade-industry-and-competition-ebrahim-patel-20-may-2022-in-the-national-assembly/>

Planting, S. 2022. Big Banks promise to power green energy, but how long will it take? Daily Maverick. 7 March 2022. Available at: <https://www.dailymaverick.co.za/article/2022-03-27-big-banks-promise-to-power-green-energy-but-how-long-will-it-take/>.

Ramaphosa, C. 2022a. 2022 State of Nation Address. President Cyril Ramaphosa. 10 February 2022. Available at: <https://www.gov.za/speeches/president-cyril-ramaphosa-2022-state-nation-address-10-feb-2022-0000>

Ramaphosa, C. 2022b. Committee of African Heads of State and Government. Summit of African Leaders on Climate Change. President Cyril Ramaphosa. 6 February 2022. Available at: <https://www.gov.za/speeches/president-cyril-ramaphosa-cahoscc-committee-african-heads-state-and-government-climate>

Rodrigues, N. and Rosales, L. 2021. Some Key Elements for Developing Countries in Climate Change Negotiations of COP26: Climate Finance, Article 6 Negotiations and Implications. South Centre. Climate Policy Brief. No. 6. October 2021.

Smith, S. 2017. Just Transition. A Report for the OECD. May 2017. Just Transition Centre. Available at: <https://www.gcca.eu/sites/default/files/2020-12/2017%20Just-Transition-Centre-Report%20for%20the%20OECD.pdf>

UNCTAD. 2021. Trade and Development Report 2021. From Recovery to Resilience: The Development Dimension. 40th Anniversary Edition. United Nations Conference on Trade and Development. Geneva, Switzerland.

Vecchiato, P. 2022. South Africa in Talks with Investors on Green Hydrogen Projects. Bloomberg. 10 February 2022. Available at: <https://www.bloomberg.com/news/articles/2022-02-10/south-africa-in-talks-with-investors-on-green-hydrogen-projects>.

WTO. (2022) Strengthening the WTO to promote Development and Inclusivity. Communication from The African Group, Cuba and India. Revision. WT/GC/W/778/Rev.4. World Trade Organization. General Council. 11 February 2022.

Xaba, N. and Faki, S. (eds) 2022. *A Just Transition to a Low Carbon Future in South Africa*. A MISTRA Publication. Mapungubwe Institute for Strategic Reflection. Johannesburg.