

# CLIMATE AMBITION BEYOND EMISSION NUMBERS

**Taking stock of progress by looking inside  
countries and sectors**

SOUTH AFRICA

*Hilton Trollip*

SEPTEMBER 2021



**IDDRI**

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# CLIMATE AMBITION BEYOND EMISSION NUMBERS

## Taking stock of progress by looking inside countries and sectors

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# How is this document relevant to the Global Stocktake?

This document is part of a collective report that assesses the evolution of climate ambition in 26 countries and 3 hard-to-abate sectors through a granular and context-specific analysis of trends and progress of national and sectoral transformations.<sup>1</sup> This approach allows identifying what hinders and spurs action in countries and sectors, and understanding the conditions that can support enhanced ambition, which could be political, social, economic, governance.

These insights are directly relevant to four overarching functions of the Global Stocktake in support of its desired outcome, i.e. "to inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the provisions of the Paris Agreement, as well as enhancing international cooperation for climate action" (Article 14.3 of the Paris Agreement):

- Create the conditions for an open and constructive conversation on global cooperation (on e.g., technology, trade, finance, etc.), based on an in-depth understanding of the international enablers of enhanced country ambition.
- Organize a process for knowledge sharing and collective learning, based on concrete examples of actions already in place or being discussed, including best practices.
- Create space for open dialogues across different stakeholders to support better coordination of actions, based on a detailed understanding of the levers to be activated to enhance ambition in national and sectoral transitions
- Facilitate ownership by decision-makers of the climate challenge and the risks and opportunities of the low-emission and resilient transition, based on context-specific and granular analysis of barriers and enablers.

More specifically, the collective report in general – and this document in particular – can contribute to address some of the key guiding questions for the Global Stocktake<sup>2</sup>, notably:

- What actions have been taken to increase the ability to adapt to the adverse impacts of climate change and foster the climate resilience of people, livelihoods, and ecosystem? To what extent have national adaptation plans and related efforts contributed to these actions (Decision 19/CMA.1, paragraph 36(c))?
- How adequate and effective are current adaptation efforts and support provided for adaptation (Article 7.14 (c) Paris Agreement)?

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<sup>1</sup> The full report « Climate ambition beyond emission numbers - Taking stock of progress by looking inside countries and sectors" can be found at: <https://www.iddri.org/en/publications-and-events/report/climate-ambition-beyond-emission-numbers-taking-stock-progress>

<sup>2</sup> Draft Guiding Questions for the Technical Assessment of GST1 (version 20th October 2021), available at: [https://unfccc.int/sites/default/files/resource/Draft%20GST1\\_TA%20Guiding%20Questions.pdf](https://unfccc.int/sites/default/files/resource/Draft%20GST1_TA%20Guiding%20Questions.pdf)

- What are the barriers and challenges, including finance, technology development and transfer and capacity-building gaps, faced by developing countries?
- What is the collective progress made towards achieving the long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions referred in Article 10.1 of the Paris Agreement? What is the state of cooperative action on technology development and transfer?
- What progress has been made on enhancing the capacity of developing country Parties to implement the Paris Agreement (Article 11.3 Paris Agreement)?
- To achieve the purpose and long-term goals of the Paris Agreement (mitigation, adaptation, and finance flows and means of implementation, as well as loss and damage, response measures), in the light of equity and the best available science, taking into account the contextual matters in the preambular paragraphs of the Paris Agreement:
  - What are the good practices, barriers and challenges for enhanced action?
  - What is needed to make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development?
  - What are the needs of developing countries related to the ambitious implementation of the Paris Agreement?
  - What is needed to enhance national level action and support, as well as to enhance international cooperation for climate action, including in the short term?
  - What is the collective progress made by non-Party stakeholders, including indigenous peoples and local communities, to achieve the purpose and long-term goals of the Paris Agreement, and what are the impacts, good practices, potential opportunities, barriers and challenges (Decision 19/CMA.1, paras 36(g) and 37(i))?

# Foreword

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Henri Waisman, Marta Torres Gunfaus, Anna Perez Catala, IDDRI.

Country commitments as reflected in enhanced Nationally Determined Contributions submitted to the UNFCCC are insufficient to put the world on track to achieve the collective objective of the Paris Agreement to hold temperature increase below 2 °C or 1.5 °C above pre-industrial levels. Furthermore, concrete policies and actions adopted by countries on the ground are often not sufficient to achieve these NDC targets. These conclusions highlight the need to increase ambition and to provide convincing evidence to accelerate action in the immediate and short term to give effect to this ambition. Yet these assessments are not sufficient to effectively guide the progressive increase of ambition, as organized by the cyclical process of the Paris Agreement.

## APPROACH

With this imperative in mind, this report adopts a different, complementary, perspective on climate ambition. It seeks to open the box of emission pathways, by considering multiple dimensions of the conditions that will make these pathways possible. These are technical, economic, political, social and governance considerations in need of attention to enable the required far-reaching and systemic transformation towards the long-term goal. On the one hand, the revision of emission targets needs to be directed by an assessment of how drivers of emissions should change to trigger transformation. On the other hand, converting emissions' targets into pertinent concrete implementation requires well-designed policy packages and investment plans that are also informed by a clear and detailed understanding of the starting point, priorities and interplays between the available levers of transformation.

This bottom-up assessment aims at contributing to the process of collective learning in support of the progressive increase of collective ambition, as inserted at the core of the Paris Agreement paradigm. Approaching climate ambition through the lens of underlying transformations calls for reflecting the heterogeneous nature and the multi-faceted aspects

of transitions in different sectors and countries. This forces a move away from a purely global perspective and adopts a more granular approach based on country and individual sector perspectives. Thus, the report explores trends and progress on these transformations, as locally observed over the past years, notably since the Paris Agreement. This 'backwards looking' approach can help identify where developments are going in the right direction, where they should be accelerated and where major tensions remain that should be addressed as a priority to avoid undermining the transition. The picture of the state of the ambition discussion, firmly embedded in the country and sectoral realities, can provide means for reflection and action within the international climate community, particularly to inform focus areas for advancing the collective ambition agenda.

## STRUCTURE OF THE REPORT

This country report describes the recent evolutions of domestic discourses on climate ambition, national climate policy, national governance and concrete policies and actions with a significant effect on GHG emissions. The chapter highlights a selection of striking and structurally important elements to advance the transformation towards carbon neutrality from an in-country perspective.

This report is part of a full series of 26 country chapters and three sectoral chapters. The full report includes a "summary for decision-makers" to present 10 cross-cutting messages emerging from the country and sector analysis, as a guide to the selection of priorities for collective action in the post-COP26 period.

You will find the full report at: [https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Rapport/DDP\\_beyond%20emissions%20report.pdf](https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Rapport/DDP_beyond%20emissions%20report.pdf)

# CLIMATE EMISSIONS MITIGATION POLICY AMBITION

*This chapter has been written thanks to the support of the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).*

## DOMESTIC DISCOURSES

The South Africa domestic discourse on climate policy and ambition has evolved over time in a context of significantly changing political, social and economic conditions. It has remarkably changed from a response to an international climate-driven agenda towards an in-country agenda of development, democracy and distributive justice.

### *Initial mitigation policy discourses based in climate science, techno-economics of mitigation, rights based constitutionalism and international multilateralism*

South Africa has been a pioneer in climate change ambition and climate policy implementation among developing countries. It was an early mover in making an ambitious<sup>1</sup> voluntary emissions reduction commitment to the UNFCCC in 2009 and began to implement this in 2011 with a bold renewable energy electricity generation programme based on the Integrated

<sup>1</sup> Evidence of the ambition was the resistance by large South African emitters to this policy

Resource Plan (IRP2020-2030), which imposed an emission cap, and the internationally acclaimed Renewable Energy Independent Power Producer Programme (REI4P). By 2015, some 6GW of renewable energy had been built or was under construction and a further 2.3GW had been contracted, in total representing some ZAR 202bn of investment. In view of the fact that in 2010 renewable energy generation was significantly more expensive than coal which dominated South African electricity generation, this was a notable achievement.

### ***Discourses of patronage politics, corruption, state capture and economic decline***

Another pioneering area has been South African experiences with resistance to implementation of fundamental systems transitions<sup>2</sup>. The REI4P programme became involved in a struggle with the incumbent coal regime which is entangled with national politics and corruption involving coal-electricity industry contracts at state-owned electricity monopoly Eskom. A patronage network organised around corrupt coal contracts, 'state-capture' and president Zuma gained ascendancy in government, with the REI4P being stopped in 2015. Emissions mitigation policy ambition also stalled - an INDC with a similar commitment to 2009 was submitted at the 2015 COP, which in effect constitutes a substantial regression in mitigation ambition.

Poor performance of the coal electricity generation fleet and loadshedding were associated with corruption, severe economic damage and loss of confidence in governance of the electricity system, the economy and government in general. In 2016 a high profile official report was issued, linking this to coal-electricity corruption and a patronage network of 'state capture'.

### ***Constitutionalist and techno-economic discourses integrated into a 'just transition' (JT) discourse***

Linked to loss of confidence in government and the upcoming national elections in 2018, in 2017 pro-constitutionalists narrowly defeated the patronage network anti-constitutionalists in an internal

ANC election and installed Cyril Ramaphosa as president. Since then, Ramaphosa and allies have been regaining the ascendancy including rooting out coal-electricity corruption, re-starting the REI4P and publishing the update IRP2019 electricity plan with a significant expansion of renewable energy. These developments found alignment with international efforts to accelerate climate ambition after the surge in political support emerging from a universally approved and rapidly ratified Paris Agreement. Emissions mitigation governance was integrated by the National Planning Commission (NPC) with procedural and distributive justice elements within the just transition (JT) concept.

### ***Discourses of economic decline, social and political disruption, insurrection, rule-of-law, constitutionalism and economic re-vitalisation***

In 2020 South African debt was downgraded to junk status. Unemployment steadily increased from 2010 to 43%<sup>3</sup> in 2021 with 72% youth unemployment. Economic decline is intertwined with decline of the coal-powered electricity sector, corruption and a destructive struggle between ANC pro- and anti-constitutionalist factions. The Covid-19 pandemic exacerbated severe poverty and inequality.

The volatility of these socio-economic conditions, and the ongoing influence of an entrenched patronage network and anti-constitutionalists was linked to a violent insurrection of sabotage and looting following Zuma's imprisonment after being convicted of contempt of the Constitutional Court in June 2021. The presidency stated that: "*It is clear now that the events of the past week were nothing less than a deliberate, coordinated and well-planned attack on our democracy. The constitutional order of our country is under threat.*" In 2021, metropolitan debt was downgraded to junk status. Four metropolises account for 50% of South African GDP. Yet, climate ambition has again become a mainstay in South Africa, including a political commitment to carbon neutrality by 2050 in the midst of this economically decaying environment.

Regaining a minimum level of economic re-vitalisation and supporting social and political stability to

<sup>2</sup> Baker Lucy and Jesse Burton Hilton Trollip (2020) 'The Energy Politics of South Africa', in Hancock, K. J. and Allison, J. E. (eds) *The Oxford Handbook of Energy Politics*. Oxford University Press.

<sup>3</sup> This is the broad measure that includes 'discouraged work-seekers.' Youth unemployment



enable the constitutionalists to remain in the ascendancy requires a functional electricity system which, in turn, involves implementation of the renewable energy plan and the associated just transition. *“The only way in which South Africa can navigate the climate transition is by seizing the opportunities provided by changing market conditions at the same time as making sure that those who are most vulnerable to change are supported to adapt.”*<sup>4</sup>

## CURRENT GOVERNANCE

***The national governance context is dominated by entangled factional politics in the ruling party with corruption centred on fossil-based electricity playing a large role***

Until President Zuma was forced out of office in February 2018 and Cyril Ramaphosa was inaugurated as the new president, state capture under the Zuma-led government had continued to undermine constitutional, rule-of-law-based government in general, and progress in implementation of energy and climate policy in particular. The period since February 2018 has involved a steady process of dislodging corrupt individuals installed in the state capture period and re-building institutional capacity. This has been a delicate operation because of the narrow advantage held by anti-state capture allies in the balance of political power in the ruling ANC and the entrenched patronage network. The constitutionalists have a tenuous hold on power.

***The establishment of the Presidential Climate Commission (PCC) is a huge step forward linking climate policy governance, equity and economic policy via commitment to JT structures and processes using competent technocratic governance***

The PCC was established with Ramaphosa as the chair in September 2020, and held its first three meetings in April-June 2021 re-igniting progressive climate ambition governance. The Executive Director, Crispian Olver, is very experienced in the most senior management functions across a number of

government portfolios, including a range of national and international roles in environmental policy. The 22 commissioners are from a wide array of organisations spanning interests from the major coal-related companies (and/or business associations), labour unions, civic and youth societies, environmental NGOs and specialist technical (law and science) organisations.

The JT process launched by the PCC is possibly the most comprehensive and optimistic, competent governance initiative currently operational in South Africa. Return to ascendancy of constitutionally mandated, rule-of-law, transparent, democratic governance exemplified in the setup and initial proceedings of the Commission are a break-through after many years of stuck processes and behind-the-scenes covert “governance” which undermined the initial leadership and successes of South African climate governance.

***Business has begun taking a proactive role in mitigation policy***

The National Business Initiative (NBI) has been running a project for over a year which explores the question: *“What would it take for South Africa to get to net-zero emissions?”*. Business appears to acknowledge that survival will require embracing decarbonization, and the NBI has been actively supporting PCC processes. The NBI is undertaking a modelling exercise to map out a technically and financially feasible set of pathways for South African business sectors that would achieve carbon neutrality by 2050<sup>5</sup>. The NBI in this process with Business Unity South Africa (BUSA), previously a public critic of key aspects of mitigation policy, now participating, has carried out detailed modelling in consultation with a broad range of business stakeholders that supports the main findings of other models that a ‘renewables dominant’ electricity system is least cost. These are notable developments in a policy landscape where coal and emissions intensive industry has often had an adversarial relationship in mitigation policy processes, and are now leading public structured assessments on how to materialise the ambition embedded in the Paris Agreement.

<sup>4</sup> South African Presidential Climate Commission July 2021 - First Report: Recommendations on South Africa’s draft updated Nationally Determined Contribution (NDC)

<sup>5</sup> NBI (National Business Initiative), 2021. Climate Pathways and a Just Transition for South Africa. Technical compendium for PCC. 20 May 2021. Unpublished (quoted from PCC First report).

## RECENT PROGRESS IN POLICIES AND ACTIONS

### *Presidential Climate Commission recommends substantial reduction in draft proposed NDC update*

In its 'First Report' the PCC recommends lowering the target range for 2030 from 398-440 Mtpa to 350-420Mtpa. While this was a necessary compromise it was the result of public discussions where a range of experts presented analysis and the wide range of commissioners could debate proposals. Stakeholder inputs and discussions at the PCC made it clear that a number of stakeholders view a lower NDC as an opportunity to approach international climate funders. This creates a context of opportunity vs. a perception of burden.

The First Report also records that: "some of the largest emitters in South Africa have made commitments that support the country's goal of net-zero carbon emissions by 2050. Eskom, the country's largest GHG emitter, has committed, in principle, to net-zero emissions by 2050, while Anglo American has set a global target of achieving carbon neutrality by 2040. One of South Africa's largest coal miners, Exxaro, aims to attain carbon-neutrality by 2050, while SASOL is exploring pathways to achieving net-zero by 2050 (with an announcement expected in September 2021)."

### *A re-invigorated REI4P and IRP dominate emissions mitigation*

Emissions mitigation is no longer primarily motivated by emissions reduction but by the need to replace decrepit coal power stations and expand national power generation with an accelerated renewable energy electricity generation programme, now that renewables have become the least cost source of energy.

The REI4P was resumed in 2018. The IRP2019 was published, with some 20GW allocated to renewable energy. In April 2021 new bid windows of the REI4P were opened, inviting proposals for 2.6 GW of wind and PV. Difficulties with environmental authorisations and withdrawals of financier support appear to make new coal generation unlikely to be built.

### *The breakthrough announcement for embed-*

### *ded generation.*

In mid-June 2021 President Ramaphosa announced that the threshold for requiring a license for embedded generation projects would be raised from 1MW to 100MW. The energy minister who was present at the announcement had spent the previous years delaying this increase and arguing against it. This announcement has enormous political significance. It was an unambiguous signal that the president will override ministers and departments on the advice of a dedicated department set up in the presidency to facilitate reform efforts being thwarted by line ministries.

Since the refusal to sign REI4P contract in 2015 the electricity sector has been characterised by forms of delay. While this improved when Ramaphosa assumed the presidency with the signing of the outstanding contracts delays through inaction have persisted and a coal-supporting narrative has actually ramped up in the DMRE. A survey in January revealed that a suppressed supply some 5,000MW of embedded generation exists. If a substantial amount of this materialises in the next few years especially in the context of a national shortage of some 4,000 MW it will prove by example the benefits to industries that build this generation and to the upstream electricity renewable energy equipment manufacturing sector.

### *The just transition (JT) is now at the centre of mitigation policy and the 2050 net-zero ambition committed to in SA's low-emissions development strategy (LEDS). It necessarily involves international financial support for electricity transition in the medium term.*

A low-emissions development strategy (LEDS) was filed with the UNFCCC in 2020 with a commitment to a net-zero economy by 2050. The president made a submission to the 2020 UN Climate Leaders Summit, committing to progressing the NDC and mentioning a 'Just Transition Transaction' (JTT) involving an "\$11-billion blended funding facility". This facility would use support from climate funds to leverage private sector investments to cover 'social costs' of electricity system decarbonization and accelerate the transition. Of this some US\$4bn would need to be concessionary finance from international climate funding. Much analysis has gone into what will be required to support the social costs of the transition out of coal and so

far this is the only plan on the table which tackles this problem at national scale. However, organised labour has been critical of the REI4P because they view it as privatisation through the back door, a policy they are ideologically opposed to. Substantial work is required on detailed JT plans to provide sufficient levels of detail to address distributional issues. This would require specific plans detailing how economic benefits of renewable energy can be increased and distributed to address poverty and unemployment, especially in coal regions.

## **BUILDING ON RECENT PROGRESS – NEXT STEPS FOR SPECIFIC POLICIES AND ACTIONS**

### ***Policy and implementation mechanisms for the renewable energy roll-out exist but implementation needs to accelerate***

The IRP2019 needs to be updated in at least three important respects: by incorporating pathway modelling of latest relevant technology cost assumptions and remove the irrational coal power previously forced in; by extending it to 2050, and; by including scenarios that factor in a successful JTT which mobilises finance to accelerate the phase-out of coal. The REI4P and/or similar<sup>6</sup> need to be accelerated to implement the updated IRP. No new contracts have been entered into since 2014.

### ***Overall governance and outline proposals for the JTT managed transition exist but need to be developed through to implementation through the PCC JTT process***

A number of academic/technical studies have described potential requirements and elements of the JTT. The need for procedural justice is a central feature and a number of proposals have been made which include social plans for coal regions, retraining of coal sector workers, re-purposing of coal power stations including siting renewable energy generation in coal regions (economically viable despite not being opti-

mal renewable energy resource areas) and assistance with economic diversification and establishment of renewable energy equipment manufacturers in coal regions within an energy/industrial policy that provides sufficient demand certainty from the renewable energy generation roll-out for local equipment manufacturers.

### ***Ambition and implementation in industrial and transport sectors are tightly linked to what happens in the electricity sector in the next decade and international technology costs and trade measures such as border carbon adjustments (BCAs)***

In the technical and political dimensions, industrial decarbonization relies on the decline of the electricity sector being turned around and success in electricity sector decarbonization. The renewable energy electricity programme can have a number of linkages to industrial futures if industrial policy is integrated with energy policy and policy stability is achieved, which would provide a steady stream of demand from local industry for renewable energy equipment.

It has been problematic for government to impose on industry its policy of top-down sector and company emissions budgets while the state-owned electricity monopoly persisted with its pro-coal and anti-renewable energy actions. Addressing this policy contradiction will garner support from industry for mitigation policy. Also, international trade and technology developments have over the past three years very quickly changed fundamentals in the business context for many of SA businesses. SA business is now acknowledging that future survival, never mind success, lies in decarbonization. There has been a flurry of analysis of opportunities related to hydrogen and one specific commercial proposal is being developed for the iron and steel sector which involves export of beneficiated indigenous iron-ore using green hydrogen generated from renewable energy<sup>7</sup>.

Similarly to electricity generation technology cost tipping points will drive decarbonization of transport. Policy may accelerate this but anomalies between government transport policies and potential performance of state-owned public transport sector institutions and infrastructure performance are problematic.

<sup>6</sup> There have been ongoing debates about whether this should be via IPPs as in the REI4P (viewed as privatization via the backdoor by organized labour) and/or driven by state-owned Eskom monopoly ownership and/or various blends of social/community ownership.

<sup>7</sup> [https://ddpinitiative.org/wp-content/pdf/GreenPrimaryIron\\_ZF.pdf](https://ddpinitiative.org/wp-content/pdf/GreenPrimaryIron_ZF.pdf)

***The JT will be integral to national security, the success of the democratic transition and addressing poverty and unemployment and achieving net zero by 2050***

Addressing economic decline, poverty and unemployment is contingent on stabilising and re-building the electricity generation sector. Coal electricity generation is in inexorable decline. Without effective management this will lead to the rapid collapse of regional economies already in severe distress. A managed electricity system transition in the form of the JT being managed by the PCC could turn this around. This will facilitate decarbonization of other sectors. Government has to be convincing that plans for the coal phase-out will include measures to address welfare in coal regions to regain/maintain security and social stability as a basis for sufficient support for the constitutionalists to enable investments in the renewable energy roll-out.



## DDP

The DDP is an initiative of the Institute for Sustainable Development and International Relations (IDDRI). It aims to demonstrate how countries can transform their economies by 2050 to achieve global net zero emissions and national development priorities, consistently with the Paris Agreement.. The DDP initiative is a collaboration of leading research teams currently covering 36 countries. It originated as the Deep Decarbonization Pathways Project (DDPP), which analysed the deep decarbonization of energy systems in 16 countries prior to COP21 ([deepdecarbonization.org](http://deepdecarbonization.org)). Analyses are carried out at the national scale, by national research teams. These analyses adopt a long-term time horizon to 2050 to reveal the necessary short-term conditions and actions to reach carbon neutrality in national contexts. They help governments and non-state actors make choices and contribute to in-country expertise and international scientific knowledge. The aim is to help governments and non-state actors make choices that put economies and societies on track to reach a carbon neutral world by the second half of the century. Finally, national research teams openly share their methods, modelling tools, data and the results of their analyses to share knowledge between partners in a very collaborative manner and to facilitate engagement with sectoral experts and decision-makers.

[www.ddpinitiative.org](http://www.ddpinitiative.org)



The University of Cape Town (UCT) is a public research university located in Cape Town in the Western Cape province of South Africa. UCT was founded in 1829 as the South African College making it the oldest higher education institute in South Africa.[4] In terms of full university status, it is the oldest university in South Africa and the oldest extant university in Sub-Saharan Africa together with Stellenbosch University which received full university status on the same day in 1918.

<http://www.uct.ac.za>

## IDDRI

The Institute for Sustainable Development and International Relations (IDDRI) is an independent, not-for-profit policy research institute based in Paris. Its objective is to identify the conditions and propose tools to put sustainable development at the heart of international relations and public and private policies. IDDRI is also a multi-stakeholder dialogue platform and supports stakeholders in global governance debates on the major issues of common interest, such as actions to mitigate climate change, protect biodiversity, strengthen food security, and to manage urbanisation. The institute also participates in work to build development trajectories that are compatible with national priorities and the sustainable development goals.

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