

SOUTH AFRICA'S SECOND NATIONALLY DETERMINED CONTRIBUTION UNDER THE PARIS AGREEMENT

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REPUBLIC OF SOUTH AFRICA



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1. Introduction

a. Mandate and scope

South Africa has prepared and hereby communicates our second Nationally Determined Contribution (NDC) under the Paris Agreement, fulfilling our obligation under Article 4.9 to communicate NDCs every five years. As a responsible global citizen, and reaffirming our commitment to the multilateral rules-based regime under the UNFCCC and its Paris Agreement, we communicate this second NDC as our fair and ambitious contribution to collective action in the fight against climate change. This second NDC is critical to shifting our development path to a low emissions, climate-resilient and socially just society.

South Africa submitted an Intended Nationally Determined Contribution (INDC) (RSA, 2015) on 25 September 2015, prior to COP 21, which became our first NDC (RSA, 2016) on 1 November 2016, following our ratification of the Paris Agreement. South Africa updated and enhanced our first NDC (RSA, 2021), which was communicated on 27 September 2021. The delay was due to the COVID-19 pandemic, and we indicated at the time that our second NDC would be submitted in 2025. The present document is our second NDC. We are thus clearly and consistently maintaining successive NDCs, as required under Article 4.2 of the Paris Agreement.

b. Taking into account outcomes of first global stocktake, reports of the Intergovernmental Panel on Climate Change, and sustainable development goals

In preparing this second NDC, we took into account the outcomes of the first global stocktake (GST1), as required by decision 4/CMA.1.

The GST assesses collective progress in achieving the purpose of the Paris Agreement and its long-term goals: on global temperature (in Article 2.1a of the Paris Agreement), mitigation (Article 4.1), adaptation (Article 2.1b and 7.1), and finance (Article 2.1c and 9.3). We reaffirm that successful implementation of the Paris Agreement requires implementation by the international community of measures to achieve *all* the long-term goals of the Paris Agreement. The scope of our second NDC includes mitigation, adaptation and loss and damage, and support needs. GST1 considered ambition and equity, both based on best available science, as cross-cutting elements. We consider fairness and ambition as critical, and our approach to climate change is firmly based on science.

The reports of the Intergovernmental Panel on Climate Change (IPCC) are authoritative assessments of our knowledge on climate change, and South Africa considers the IPCC reports to be of the highest importance in guiding our actions. The contributions of Working Groups I, II and III to the Sixth Assessment provide invaluable information on the physical science basis, on options for climate-resilient and low emissions development, highlighting the systems transformations that will be necessary for ambitious climate action, as well as potential disruption of rapid change; and assesses literature on equity in mitigation, adaptation and implementation.

In updating our first NDC, we warmly welcomed the IPCC's special report on global warming of 1.5°C above pre-industrial levels. The special report remains salient to the global temperature goal:

“This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change” (Article 2.1a).



Effective multilateral co-operation is a key factor in achieving the temperature goals of the Paris Agreement. The first GST underlined “the critical role of multilateralism based on United Nations values and principles, including in the context of the implementation of the Convention and the Paris Agreement, and the importance of international cooperation for addressing global issues, including climate change, in the context of sustainable development and efforts to eradicate poverty”.

South Africa expresses our deep concern that the risk of overshooting 1.5°C is becoming ever more likely, and we suffer losses and damages from increasing temperatures already. We stand in solidarity with all peoples, and particularly other African countries, whose capabilities to adapt are limited. As a global community, we must redouble our effort to reduce emissions rapidly after peaking and return to global warming levels below 1.5°C after overshooting, and we call on developed country economies to mobilise finance commensurate with 1.5°C.

South Africa takes the view that ambition should not only apply to setting goals, but also to their implementation. The climate crisis requires urgent action – now, and throughout the rest of this critical decade, and to 2035, with a long-term perspective of a just transition to net zero CO₂ emission by 2050. We believe that just transitions, for mitigation and adaptation, are core to shifting our development pathway to increased sustainability, fostering climate-resilient and low greenhouse gas emissions development, while providing a better life for all.

Our approach integrates climate and development, and our NDC relates to the sustainable development objectives enshrined in our National Development Plan (NDP). South Africa faces a triple development challenge of poverty, inequality and unemployment. The context of development is critical to implementing and achieving climate goals in South Africa and elsewhere. We remain committed to the global Sustainable Development Goals (SDGs), which were adopted in 2015, the same year as the Paris Agreement, and include the goal of taking urgent action to combat climate change and its impacts (Goal 13), to reduce poverty and inequality, and to provide access to sustainable energy for all.

c. Progression and highest possible ambition, in the light of equity and national circumstances

South Africa has considered the principles and provisions of the Paris Agreement in preparing this second NDC, as with the first NDC and its update. South Africa is not listed in Annex I of the UNFCCC, is a developing country Party to the Paris Agreement, and communicates this NDC “in pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances” (Paris Agreement, preamble).

We consider progression to be the floor of ambition. We take most seriously the obligation in Article 4.3, and this second NDC demonstrates progression beyond the first, and reflects our highest possible ambition, reflecting common but differentiated responsibilities and respective capabilities, in the light of our national circumstances. Our updated NDC in 2021 showed significant increase in ambition, in relation to mitigation, and also made clear that great levels of investment and international climate finance will be needed. We continue to assume “that implementation and ambition will be enabled by finance and technology and capacity building support”, as stated in the first NDC, and stipulated in the Paris Agreement. Ambition and equity apply across mitigation, adaptation and support.

The structure of the second NDC follows that of the first NDC in most respects. We include components on adaptation, mitigation and support. Loss & Damage was treated briefly in our first NDC and, given its ever-increasing impact, has a dedicated section in this second NDC. Also, we have



provided “information necessary for clarity, transparency, and understanding” (ICTU) in relation to mitigation in our first NDC and update, and here, as required, and believe that monitoring and evaluation of adaptation actions, and tracking climate finance, deserve more attention.

As GST 1 emphasized, equity means considering differences in context, and we outline our national priorities and circumstances.



2. Context: national priorities and circumstances

South Africa's second NDC reflect several trends in the country with respect to development and climate change. We have made significant progress in implementation since 2021, when we communicated our updated and enhanced NDC. Our country faces significant development challenges that need to be addressed alongside the implementation of its current NDC and communication of this second NDC.

a. Approach

South Africa approaches climate changes as part of broader sustainable development. The National Development Plan (NDP) elaborates our national vision up to and for 2030, and sets out national sustainable development objectives. The NDP can be read through the lens of the global Sustainable Development Goals (SDGs), expressing a vision of a country with no poverty (SDG1), affordable and clean energy (SDG7), reduced inequality (SDG10), climate action (SDG 13) supported by Partnerships for the Goals (SDG 17). This second NDC is an integral part of implementing our national development goals beyond 2030. We understand that this will require shifting our development path to increased sustainability, and moving to a low-emission and climate-resilient future for all South Africans. Women, youth, workers, rural people, and others who have historically been marginalized should drive such shifts and determine their own futures, consistent with the principles of our Climate Change Act. South Africa strongly supports gender mainstreaming through all relevant targets and goals in activities under the Convention and its Paris Agreement. Our approach is based on fairness and ambition, informed by best available science. The principles of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances, is enshrined in the Paris Agreement, and in our national legislation. This second NDC represents our highest possible ambition, in the context of equity – and we see implementation as key to ambition. Implementing our NDCs will position South Africa in the future global economy. Economic diversification will be essential, and our objectives for structural transformation are low unemployment, low emissions. and zero hazards, with social protection especially for vulnerable workers and communities. In preparing this NDC, we followed an all-of-economy, all-of-society, and people-centred approach. Climate change is a global challenge, requiring collective action. South Africa reaffirms its steadfast commitment to the multilateral rules-based climate regime under the UNFCCC and its Paris Agreement.

b. Updates on national priorities and progress made since 2021 update of first NDC

Since 2021, South Africa has made significant progress in implementing its response to climate change. In 2024, Parliament passed framework legislation, the Climate Change Act, providing a firm legal basis for climate action. The 2019 Carbon Tax Act has been implemented, and is entering a second phase with an increased tax rate. The 2019 Integrated Resource Plan for electricity was updated in 2025. The Climate Change Act enshrines several principles which guide its implementation. The Act gives responsibilities to Ministers responsible for a wide range of line functions for implementing adaptation and mitigation. On mitigation, the Act mandates updates of our national GHG emission reduction trajectory (NGERT) by the Minister of Environment every five years, and an updated NGERT will inform our third NDC. Mitigation targets in our first NDCs have taken “the form of a peak, plateau and decline GHG emissions trajectory range”; now we will implement a just transition to net zero CO₂ emissions by 2050. The long-term decarbonization of the South African economy will, in the 2020s, focus primarily on the electricity sector; in the 2030s, a deeper transition will take place in the electricity sector, coupled with a transition in the transport sector towards low emission vehicles; while the



2040s and beyond will be characterized by the decarbonization of the hard-to-mitigate sectors. On adaptation, South Africa has progressed from a 2006 framework to a first National Climate Change Adaptation Strategy (NCCAS), adopted in 2020, which serves as the country's National Adaptation Plan (NAP), submitted to the UNFCCC in 2021. We are moving increasingly to operational adaptation planning and implementing actions. Implementing the adaptation provisions of the Climate Change Act will include significant support for provincial and local government in South Africa. Climate action requires integrated policy packages, and hence increased coordination, consistent with the principles of the Act. We have continued to strengthen institutional capacities and arrangements. The Presidential Climate Commission, initiated in 2018, has developed a Just Transition Framework, its mandates and functions legally defined in the 2024 Act. The first Just Energy Transition Partnership (JETP) was established by South Africa and international partners, and the JETP investment and implementation plans support equitable and ambitious climate action in South Africa, ensuring that no-one is left behind as the country moves towards a low-carbon, climate-resilient economy. Industrial policy pursues socially inclusive green industrialization, and increasingly integrates decarbonization and economic diversification. We will work in solidarity with other African countries on regional beneficiation at source and strengthening continental trade to expand regional green minerals value chains.

c. Climate impacts experienced in South Africa

Climate change is one of the greatest challenges of our generation. Despite efforts in global mitigation, these fall short of what is needed to keep temperature increase below 1.5°C above pre-industrial levels. Rising global emissions mean increasing impacts.

Between 1.5°C and 2°C global warming above pre-industrial levels, negative impacts are projected to become increasingly widespread and severe with reduced food production, reduced economic growth, increased inequality and poverty, biodiversity loss, increased human morbidity and mortality. Limiting global warming to 1.5°C is expected to substantially reduce damages to the South African economy, agriculture, human health, and ecosystems compared to higher levels of global warming.

Africa is warming at approximately 1.5 times the global average rate, leading to more frequent and severe extreme weather events across the continent, and causing an increase in climate-related impacts in South Africa. In recent years, the country has experienced a range of extreme weather events – including devastating floods in KwaZulu-Natal, Eastern Cape and Western Cape, record-breaking heatwaves in the Northern Cape and other interior provinces, prolonged drought conditions in various regions including the Eastern Cape, Western Cape and Free State, more frequent intense storms in Gauteng, and severe wildfires in the Western Cape – with poor communities suffering the worst impacts, and businesses and municipalities struggling to keep operations going during these events and to recover to full operational capacity before experiencing the next extreme event. While various coping and adaptation measures have been implemented, the scale and persistence of impacts highlights the inadequacy of efforts to date, and evidence the gap in readiness for dealing with increasing frequency and magnitude of climate impacts projected for the 2030s.

Some of the greatest gains for climate change risk reduction can be achieved in South Africa through reducing vulnerability. KwaZulu Natal, North West, Limpopo and the Eastern Cape provinces show high levels of multidimensional vulnerability to climate change at the household level, especially due to widespread lack of access to safe water and toilet facilities and to high levels of food poverty. While spatial targeting of adaptation efforts and support is important, the reality is that inequalities of vulnerability within provinces and municipalities are high. Climate change is not experienced equally by all. For example, municipalities in the eastern part of the Eastern Cape show a higher level of



climate vulnerability than those in the western part of the province. Vulnerability is higher for households that are primarily engaged in climate-sensitive livelihoods (e.g. rain-fed agriculture, fisheries, construction); have household members that are pregnant, young, elderly, or are living with disabilities; do not have adequate access to food to meet their daily nutritional requirements; do not have adequate access to clean water and/or safe sanitation within 200 m of their homes; and who live in an informal dwelling, which makes them especially susceptible to the impacts of climate change. Gini coefficient estimates of a multidimensional climate vulnerability index for each local municipality reveal a concentration of high inequality in the Western Cape, Gauteng, Northern Cape, and Free State provinces, requiring a set of adaptation interventions that target the most vulnerable across the country.

Recognising that not all South Africans have the same capabilities to respond to climate change, it is important to promote social inclusion and justice, to facilitate strong community participation, including by women, youth, the disabled, previously disadvantaged and under resourced communities, and to promote equitable access to green jobs and sustainable livelihoods. Reliable, comparable, spatially and socially disaggregated data (including by gender, age, disability and other characteristics) on experienced climate and weather impacts are not readily available, and thus financial support is urgently required to build up a robust picture of the distribution and changes of impacts and associated losses and damages over time, which will help to target adaptation investments.

Increasing impacts mean increasing adaptation needs, and associated costs. Where the limits to adaptation are exceeded, there will be increasing loss and damage. Loss and damage is here and now in South Africa. Future impacts from climate extremes in heat and rainfall may reduce South Africa's GDP per capita by 3–20%, depending on the average global warming level (GWL). National-level costs of the impacts of climate change on infrastructure in South Africa are estimated to vary between USD116.8 million and USD228.7 million annually at 1.5°C GWL and up to USD 522.0 million (2°C GWL) average annual costs if no adaptation action is taken. Our scientists are working to understand attribution ever better. There are multiple drivers, due to multiple factors, including heavy dependence on climate sensitive sectors, underinvestment in the maintenance, expansion and upgrading of public infrastructure, a lack of spatial integration due to the legacies of colonialism and apartheid, highly unequal adaptive capacity, persistently high levels of poverty and unemployment, and limited access to finance and technology. Climate justice is central to South Africa's adaptation agenda.



3. Adaptation

a. Adaptation communication, national adaptation strategy and plan

South Africa submits its second adaptation communication as part of its Nationally Determined Contribution (A-NDC) in line with the Paris Agreement in Article 7, paragraph 11. Our adaptation communication (AC) comprises this section, read together with impacts in 2c above. We continue to apply the further guidance in relation to adaptation communications, contained in decision 9/CMA.1 including the elements in its Annex, noting that this guidance is being reviewed in 2025. Furthermore, in preparing this second A-NDC, South Africa has reviewed the adaptation goals in our first NDC as updated in 2021, taking into account the thematic targets which were globally agreed in the Framework for Global Climate Resilience (FGCR) under the Global Goal on Adaptation (GGA) and referenced in the GST outcome (decisions 2/CMA.5 and 1/CMA.5, respectively).

South Africa considers this A-NDC as its fair and ambitious contribution to multilateral efforts to achieve two of the long-term goals of the Paris Agreement, the Global Goal on Adaptation under Article 7.1 and the goal to increase the ability to adapt elaborated in Article 2.1 (b). These global goals are part of strengthening the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty. Making nationally determined contributions to these goals means enhancing adaptive capacity and implementing measures to reduce vulnerability to climate change. We note that the GGA explicitly refers to the global temperature goal, which is in Article 2.1a, as higher global warming levels lead to more adverse and extensive impacts. The GGA also enjoins all countries collectively to ensure an adequate adaptation response, since otherwise we will suffer increasing losses and damages, associated with the movement of people to less impacted places.

The National Climate Change Adaptation Strategy (NCCAS), developed in 2020, continues to provide a basis for climate change adaptation planning and implementation. The NCCAS serves as South Africa's National Adaptation Plan, submitted in 2021, demonstrating our commitment to our obligations in terms of Article 7.9 of the Paris Agreement. The NCCAS is an important policy instrument, in which national strategic objectives and desired outcomes for climate change adaptation have been articulated to provide overarching guidance to all sectors of the economy in implementing adaptation. The NCCAS is strengthened by the Climate Change Act of 2024 that establishes a mandatory and recurring process for climate risk and vulnerability assessments, adaptation planning, and reporting for national, provincial, and municipal government spheres and identified sectors.

b. Climate hazards, risks and vulnerability

South Africa is experiencing significant climate shifts, with temperatures rising faster than the global average, leading to more frequent and severe extreme weather events, including droughts, floods, heatwaves and wildfires. Key risks facing South Africa from current and future impacts of climate change are determined by more than climatic hazards, and are affected by vulnerabilities, exposures and responses to climate change. Risks become particularly severe under specific conditions of vulnerability that make the impacts of climate change negatively affect some groups more than others and where risks interact and concatenate. Of key concern for South Africa are the following:

1. Risks of water and energy insecurity due to drought-induced shortage of water supply and hydropower. Projections show that many South African settlements will face increasing risk to water access and quality under increased warming.



2. Risks of food insecurity, malnutrition and loss of livelihoods due to reduced food production from crops, livestock and fisheries linked to increasing heatwaves and shifting rainfall patterns at critical times in plant seeding, animal breeding and maturation cycles and harvesting periods. Future warming is expected to negatively affect food systems and agricultural livelihoods by shortening growing seasons and increasing water stress, with particularly high risk to female-headed households in agricultural districts.
3. Risks of decreased economic output and increased poverty and unemployment rates due to increased heat and frequency and severity of droughts, storms and flooding, undermining livelihoods and business operations, especially in agriculture, fisheries, construction, tourism and logistics.
4. Risks of increasing costs of use, maintenance and repair to infrastructure, notably including roads and energy generation and distribution infrastructure, due to projected trends in rainfall, temperature and sea-level rise, with cascading impacts associated with disruption to health services, education, financial systems, transport and logistics, and water treatment.
5. Risks of increased mortality and morbidity due to increased vector-borne and diarrhoeal diseases linked to increasing rainfall intensity and poor sanitation, as well as heat stress, especially in informal settlements. Mortality and morbidity will escalate with further global warming, placing additional strain on South Africa's health and economic systems.
6. Risks of extinction of animal, insect and plant species and loss of ecosystems and their services in marine, freshwater and land ecosystems due to heat, acidification, wind and water stress, together with habitat fragmentation. South African biodiversity loss is projected to be widespread and escalating with every 0.5° C increase above present-day global warming.
7. Risks of growing and widespread economic and non-economic losses and damages to heritage and loss or significant change in cultural resources that contribute to adaptive capacity and resilience, including indigenous knowledge and local knowledges, identity, social cohesion, and social and kinship reciprocity networks and practices.
8. Risks of transboundary, cascading and compounding risks to regional economies, public service provision and governance due to severe, concurrent or successive climate-intensified disasters (floods, droughts, fires, wind, heat) affecting water security, energy security, and human mobility across the southern Africa region and the African continent. Trends in current exposure of people, assets and infrastructure to climate hazards will increase under future warming levels and be affected by rates of urbanisation, infrastructure deficit, and informal settlement population growth. Climate change is projected to increase internal and rural-to-urban migration within South Africa and cross-border migration in southern Africa, due to the direct and indirect environmental stressors on people's livelihoods associated with the impacts of climate change.

Sectors of emerging concern for future climate risks in South Africa are energy, education and heritage. Food loss and waste are significant issues, given their environmental and food security implications

South Africa faces an increase in cooling demand, with demand for cooling expected to grow over an extended summer period (September to April). High temperatures, low rainfall and flooding, especially in the growing season, that affect school attendance are projected to undermine educational attainment and human capital development in South Africa, unless proactive adaptation measures are invested in. South Africa hosts many cultural and natural World Heritage Sites and



Ramsar sites projected to be exposed to impacts of extreme sea levels associated with sea level rise and coastal erosion.

c. Adaptation goals, interventions and progression

South Africa identified five goals in our updated and enhanced A-NDC in 2021. Being committed to progression in its adaptation goals and interventions, with a strong focus on implementation, we have identified eight goals in Table 1, together with priority interventions to achieve them, ways of tracking progress, and support needed.



Table 1: National adaptation goals, interventions, ways of tracking and finance needs in South Africa's Adaptation Communication in its second NDC

National goals for the period 2031-2035	Priority interventions to achieve goal	Ways to track progress of adaptation	Adaptation finance needed (2026-35, ZAR millions, nominal)
Goal 1: Adapt South Africa's water and sanitation systems to drying conditions and drought and flood intensification, as water underpins human, plant and animal health and all economic and livelihood activities	Support municipalities develop updated water preparedness plans and water safety plans; Programmes to reduce water losses and non-revenue water; Enhanced water monitoring (flows, quality, consumption); Restore catchments and wetlands, removing invasive alien plants; Revise water allocations, restrictions and pricing; Water augmentation and diversification schemes, focussing on reuse and groundwater; Innovate with low-flow and waterless sanitation solutions; Expand water stewardship programmes; Invest in regional, transboundary water management arrangements	Share of updated reconciliation and planning studies for bulk water supply system and all towns studies; Number of municipalities reporting water losses over a quarter of supply; Share of service providers achieving blue and green drop status; Share of wastewater reuse; Total area with maintained removal of invasive alien plants; Total area formally under water stewardship programmes	197,000
Goal 2: Enhance disaster risk management, healthcare and sanitation provision, especially in informal settlements, to reduce impacts of flooding and heat stress on most vulnerable households	Emergency support on accommodation for flood-displaced marginalized groups in high-risk municipalities; Training and support to community-based organizations providing care services to young children, elderly and people living with disabilities; Enhance clinical resources to diagnose and treat water- and vector-borne diseases; Extend and upgrade sanitation services in high-risk informal settlements, especially near food vendors	Perceived access to safe spaces captured in census; Loss of lives in flood and heatwave events; Ratio of households to toilet facilities; Incidence of cholera and diarrheal disease	1865



National goals for the period 2031-2035	Priority interventions to achieve goal	Ways to track progress of adaptation	Adaptation finance needed (2026-35, ZAR millions, nominal)
Goal 3: Upgrade critical transport infrastructure (roads, rail, ports) to maintain functioning under increased rainfall intensity, heat stress, wind speeds and storm surges	Expand maintenance programmes to remove blockages (e.g. invasive plants, solid waste, wind-blown sand); Coastal dune rehabilitation; Flood and erosion defences; Upgrade built and ecological drainage infrastructure; Upgrades to transmission and distribution infrastructure; Managed retreat and relocation of key infrastructure from high-risk zones	Reported road closures and repair costs; Logistics and supply chain interruptions and port backlogs; Disaster incident reports	30,750
Goal 4: Enhance nutritious food access and affordability through support to agricultural and fisheries producers and distributors in adapting to warmer and windier conditions and changes in rainfall	Support to develop, adopt & market drought-resistant crop varieties and heat-tolerant livestock and aquaculture species; Enhance market access for small-scale producers; Improve irrigation efficiency; Training and accreditation of sustainable land management and sustainable fishing and aquaculture practices; Enhance access to tailored climate information; Affordable climate risk insurance schemes; Support with shade-netting infrastructure.	Increase in annual average cost of basic food basket; Number of extension officers per district; Share of children under 5 presenting signs of malnutrition; Incidence of vector-borne diseases in livestock; Registered crop losses	1246
Goal 5: Enhance climate services, with early warning and impact information made accessible to a wide range of users, tailored to different operational, language, gender, age and disability needs	Enhance early warning systems (monitoring, warning dissemination and response triggers), building on SAWS multi-hazard EWS; Train community leaders in climate information interpretation and response measures, and how to ensure that implementation of all interventions is socially inclusive and gender responsive; Develop a national inventory of impacts to complement EWS with bottom-up data collection, the Department of Forestry, Fisheries and the Environment (DFFE) coordinating and supporting efforts by local authorities and communities; SADC integrated regional drought-monitoring system.	Number of hydro-met monitoring stations operational; Number of registered users and active data contributors to climate services platform.	6036



National goals for the period 2031-2035	Priority interventions to achieve goal	Ways to track progress of adaptation	Adaptation finance needed (2026-35, ZAR millions, nominal)
Goal 6: Enhance ecosystem-based adaptation to heat and water stress, protecting South Africa's natural heritage, biodiversity and improving ecosystem functioning that underpins our cultural identity, food systems, human wellbeing and our tourism economy	Redesign national-scale agricultural extension programme to support sustainable rangeland management and fire management; Spatially targeted restoration initiatives in critical biodiversity areas and ecological support areas, especially strategic water source areas; Invasive alien plant clearing and management; Review ecological reserve determinations for surface and groundwater catchments; Expand conservation estate and protected area network; Strengthen protected area management; Expand land and water stewardship programmes	Coverage of protected area network, extent and share of total land area; Distribution of indicator species	9090
Goal 7: Capacitate all spheres of government to implement adaptation through enacting and enforcing all provisions of Climate Change Act	Develop and implement sector adaptation strategies and plans, consistent with NCCAS; Network of project preparation facilities supporting municipalities access suitable financing for robust adaptation interventions; Climate jobs register with a focus on youth and gender inclusion; Fully functioning adaptation MEL system for routine BRT and GST reporting	Annual adaptation spend; Number of climate jobs filled; Sector adaptation strategies and Plans reviewed and adjusted every five years; Adaptation synthesis reports published	4229
Goal 8: Enhanced efforts to build climate-resilient human settlements and resilient infrastructure.	Develop the Human Settlement Climate Change Adaptation Strategy / Climate Change Response Strategy and/or Plan; Conduct climate risk and vulnerabilities on Priority Human Settlement and Housing Development Areas; Support ecological infrastructure interventions as part of building the climate-resilient infrastructure.	Number of instruments and tools developed and implemented to integrate climate consideration in spatial planning and human settlements.	See text describing table, above and below.



South Africa has nationally determined the eight goals in Table 1 and will implement interventions to achieve them, consistent with our Climate Change Act, and National Climate Change Adaptation Strategy (which serves as our national adaptation plan).

For each goal, interventions are needed, and we are costing the required support. Equity and ambition apply to adaptation and just adaptation is addressed in an integrated manner, under information necessary for clarity, transparency and understanding (see Table 4 below, 6 a) and as matters of equity and science (section 7. below). Some initial ways of tracking progress in implementation are indicated in Table 1, and can be continually improved, including by developing indicators that better capture implementation and outcomes.

On adaptation finance needed over the ten year period, it should be noted that these are initial estimates, for the specific interventions. Estimates for the seven goals, and investment needs for the eighth goal, will be assessed in more detail in the forthcoming NDC investment plan. As the NDC investment and finance plan is developed (see section 6 on support), the total amount of adaptation finance may increase. The cost estimates are in nominal values, and not increased with inflation.

We have taken into account the outcome of the first GST, which as indicated above included 11 global targets under the FGCR, developed under the GGA (decisions 1/CMA.5 and 2/CMA.5). Taken together, the 7 thematic targets will contribute to the Parties collectively achieving the Global Goal on Adaptation. Implementing actions to achieve our eight national goals stated here is our fair and ambitious contribution to the collective achievement of these global targets. Our national goals address water (1), food and agriculture (4); health (1,2); infrastructure and human settlements (2, 3, 8); and poverty and livelihoods (2,4). Several goals have cross-cutting characteristics (5,7), addressing poverty, inequality; cultural heritage and protecting ecosystems and biodiversity (6). We have also considered how targets relating to an iterative adaptation cycle can assist our country in implementing adaptation (5,7). In preparing this second A-NDC, we have assessed impact, vulnerability and risk; undertaken further planning; and intend to further strengthen our existing monitoring, evaluation and learning system. We aim to produce synthesis reports on adaptation every two years, and these will provide an important information base for our Biennial Transparency Reports (BTRs), and contribute to the next global stocktake.

d. Institutional arrangements

The 2024 Climate Change Act provides a legal basis for implementation of adaptation, with responsibilities for national, provincial and local government. Guided by the Act, the DFFE is developing adaptation objectives and indicators, aligned with the NCCAS and NDC. The Act further mandates the Presidential Climate Commission to advise on the country's vision for just transitions to a low-carbon and climate-resilient economy and society.

South Africa engages with the UNFCCC financial mechanism through its accredited entities, namely the South African National Biodiversity Institute as a national implementing entity, and the Development Bank of Southern Africa as a regional accredited entity to the Green Climate Fund. These institutions play an important role in mobilising and managing climate finance to support national priorities, including the implementation of adaptation and mitigation actions outlined in this NDC. Based on a growing need to mobilize funds for adaptation, a Just Adaptation and Resilience Investment Plan (JAR-IP) is also being developed and will seek international climate finance for adaptation, to support a country-driven, coherent and strategic programme of building adaptive capacity and climate-resilient development.



Information on climate impacts is an essential basis for action on adaptation and to address loss and damage. Institutional arrangements are critical for information collection, processing and producing policy-relevant information, as evident in technical findings and the political outcome of the first GST. The South African Weather Service (SAWS) provides climate information, and has established, in collaboration with other stakeholders, a multi-hazard early warning system (MHEWS). The MHEWS provides an important platform for collection of information, drawing on remote sensing and ground-based observations. To further strengthen top-down MHEWS for the purposes of delivering tailored and actionable climate services, complementary bottom-up approaches are needed.

To strengthen our information base on climate impacts, South Africa will establish and maintain inventories of impacts. The envisaged new institutional arrangements will involve local communities in collecting data, supported by local authorities working with provincial and national governments. Information will be reported and the DFFE will develop a national inventory of impacts. Over time, the information base on climate impacts will be continuously improved. In this way, South Africa will strengthen the information base for action on adaptation and loss and damage, as well as ways to track progress in implementation.

e. Specifying adaptation needs

South Africa is seeking international support for sanitation infrastructure upgrading in rapidly growing informal settlements (with a focus on secondary cities), conservation agriculture and sustainable rangeland management programmes for emerging and commercial farmers, market access support for aquaculture small and medium-sized enterprises, catchment restoration in strategic water source areas, the scaling-up of water conservation and demand management strategies, the design and construction of water reuse and managed aquifer schemes for water-stressed municipalities, the upgrading of energy transmission infrastructure to withstand increasing heat, winds and storms, improving health surveillance systems, and enhancing transboundary water management functions.



4. Loss and Damage

a. Limits to adaptation

As climate impacts increase, limits to adaptation become policy-relevant. South Africa recognises and seeks to assess thresholds beyond which climate impacts overwhelm the possibility of further adjustment, rendering infrastructures, economic activities and ecosystems unviable. These thresholds are linked to the magnitude and pace of change, notably warming, drying and rising sea-levels, which in turn depend on global mitigation efforts. Limits to adaptation reflect constraints on capacity, such as insufficient resources within the country, weak institutional arrangements, or social and political marginalization. That does not mean that no adaptation is possible beyond such soft limits, but rather its growing difficulty or inadequacy. While there is no strict cutoff, inadequate adaptation can lead to significant loss and damage, especially for poorer communities.

b. Loss and damage in South Africa due to climate impacts

Shifting climate conditions are already having damaging and costly impacts across multiple sectors. Various public and private adaptation efforts are already underway to reduce the impacts of extreme and slow-onset climate events, but much more adaptation implementation is needed. Water and sanitation service provision in South Africa has been negatively impacted by drought and flooding, with cascading impacts on health, tourism, and economic outputs. Climate change is reducing crop and livestock yields, negatively impacting the productivity of smallholder, commercial and mixed farms. Climate change has contributed to reduced economic growth for South Africa through impacts on working hours of low-skilled labour in highly exposed sectors, especially among women, leading to impacts on agriculture, tourism, manufacturing and infrastructure construction and maintenance; as well as through negative impacts on marine fisheries and financial services. Climate change has already negatively impacted the health of South Africans through exposure to non-optimal temperatures and extreme weather that has increased the range and transmission of infectious diseases, increased heat-related mortality, increased mental health and suicide, and homicide risk, and drought-associated malnutrition. Pregnant women, the elderly, and children under five are particularly vulnerable to heat exposure. Technical analysis suggests that full implementation of the adaptation component of this second NDC would save 158,000 lives over 10 years. Enhanced information and databases on adaptation actions and their impacts can inform decision-makers about lives saved at a more granular level. Changes in wind patterns, and air and water temperatures, and acidification in and around South Africa are destroying marine biodiversity, reducing the productivity of freshwater bodies, and changing animal and vegetation distributions. Temperatures are approaching species' physiological limits, with heat extremes driving mass mortality events in birds and bats, and changes in vegetation impacting fire regimes. Exposure of people, assets and infrastructure to climate hazards, particularly floods and heatwaves, is increasing in South Africa, affecting access to economic opportunities, transportation of goods and services (including health and education), and human mobility. Higher temperatures and precipitation extremes have been linked to increased rural out-migration, especially among low-income groups, in South Africa. South Africa's cultural and natural heritage have been affected by climate hazards, including heat, rainfall variability, sea-level rise and coastal erosion, resulting in the loss of flora and fauna, decreasing visitation rates of tourists to South African national parks.



c. Institutional arrangements

South Africa has a Disaster Management Act that provides an integrated and coordinated framework and set of institutional arrangements for preventing or proactively reducing the risk of disasters. Existing institutional arrangements and capacities will be strengthened to address losses and damages due to climate change. These include the existing National Disaster Management Centre working closely with provincial and municipal disaster management centres to assess, prevent, respond to and recover from climate-related extreme events. Both emergency preparedness and response, and longer-term loss and damage recovery, need to be strengthened further as climate impacts intensify. Data from the inventory of impacts and the multi-hazard early warning system will strengthen the information base to address loss and damage, and monitoring, evaluation and learning systems will support continuous improvement.

d. Needs arising in addressing loss and damage

When limits to adaptation are exceeded, we suffer loss and damage. Support for improving data collection, processing and storage of gender-disaggregated disaster impacts, losses and damages is essential to underpin an evidence-based approach. Reducing vulnerabilities through settlement and infrastructure upgrading, enhancing food security, water catchment and ecosystem restoration, and strengthening disaster management functions are priorities for limiting loss and damage. Irreplaceable cultural heritage sites and indigenous knowledge systems are emerging as key concerns for avoiding loss and damage. While national government will do all it can, its resources and capacities are already being exceeded. This means there are increasing needs for international support to address loss and damage.

e. Funding of loss and damage

South Africa has established a Green Fund, and in 2024 initiated the establishment of a Climate Change Response Fund to put in place the institutional arrangements for funding of adaptation, loss and damage and mitigation. In this context, South Africa expects a fair share of international climate finance, to be provided by the Fund for Responding to Loss and Damage (FRLD). Getting the FRLD, established in 2023, well-resourced, with effective mechanisms to claim and disburse monies in a timely manner to those worst impacted is a priority for South Africa.



5. Mitigation

a. Approach to setting mitigation targets and contribution to global long-term goal on mitigation

South Africa submits a mitigation target in its second NDC for the year 2035, meeting our obligations under Article 4 of the Paris Agreement. The mitigation component of our NDC is a fair and ambitious contribution to global efforts, and achieving our collective long-term goal on mitigation (LTG-M). The LTG-M in Article 4.1 states that, in order to achieve the global temperature goal as per article 2.1(a), global emissions must peak as soon as possible, recognizes that this will take longer in developing countries, and calls for rapid reductions after peaking, seeking a balance of emissions by sources and removals by sinks, in the context of equity sustainable development, poverty eradication, social inclusion and mainstreaming gender in implementing mitigation.

b. Methodological consistency in setting and accounting for mitigation targets

Coverage, scope and the methodological basis for estimating and projecting emissions to inform South Africa's mitigation targets in our second NDC are based on the national GHG inventory, use IPCC methodologies, and reflect some uncertainties. The mitigation component of the NDC has been updated to further improve consistency with our latest GHG inventory in terms of coverage, scope and methodological approaches. South Africa communicated its ninth national GHG emissions inventory – the first National Inventory Document (NID), submitted as part of South Africa's first Biennial Transparency Report – reporting national GHG emissions for the year 2000-2022.

The mitigation targets in Table 2 below are economy-wide emission reduction targets, appropriate to our national circumstances. Coverage is thus economy-wide, including the land sector (see note below), and includes all gases, sectors and sources covered by the most recent national GHG inventory. South Africa will account for its target as required by decision 18/CMA.1 using the most recent GHG inventory at the time of accounting, including all gases, sectors and sources included in that GHG inventory.

The first NID uses the global warming potential (GWP) values from the IPCC's Fifth Assessment Report, rather than those from the Second Assessment Report values used in the NIR at the time of submitting the first updated NDC. Where applicable and in cases where the 2006 IPCC Guidelines do not provide methodological guidance, the first NID also applies the 2019 Refinement to the 2006 IPCC Guidelines, whereas previous NIRs applied only the 2006 guidelines. South Africa's emissions peaked in 2008/9 (including / excluding LULUCF), as reported in the ninth NIR and elaborated under ICTU.

c. Mitigation target for 2031-2035

Consistent with South Africa's first NDC, and updated first NDC in 2021, mitigation targets reflect our highest possible ambition and are put forward in the context of equity, common but differentiated responsibilities, and respective capabilities, in the light of different national circumstances. Building on previous NDCs and emissions trajectory ranges, we communicate in this second NDC a mitigation target range for the period of implementation from 2031 to 2035, specifying the target range to be achieved in 2035 in Table 2 below. In communicating this mitigation target, we took account of the outcomes of the first GST. South Africa considers the mitigation target range in this NDC to be an ambitious and equitable contribution to the global mitigation effort, given South Africa's current and historical emissions and its national circumstances (especially its development challenges). We also fulfil our obligation to pursue domestic mitigation measures to achieve these targets, affirming that "the full implementation of these policies and plans will bend the curve of South Africa's GHG



emissions" to our long-term trajectory, as stated in our first NDC. The 2024 Climate Change Act mandates a National GHG Emission Reduction Trajectory (NGERT), which will be updated every five years. Until a new NGERT has been determined, in terms of the Act, this second NDC serves as the trajectory. South Africa is at the same updating our Long-term Low Emissions Development Strategy consistent with our Just Transition Framework, which specifies the goal of reaching net zero CO₂ emissions by 2050.

South Africa's updated mitigation target is contained in Table 2, with further information contained in Table 4, which provides information to facilitate transparency, clarity and understanding as specified in Annex I to decision 4/CMA.1:

Table 2: South Africa's mitigation target in its second NDC

Period of implementation	Target
2031-2035	South Africa's annual GHG emissions will be in a range from 320-380 Mt CO ₂ -eq in 2035

In preparing the mitigation component of our second NDC, South Africa took into account the outcome of GST1, decision 1/CMA.5, paragraphs 18-42 on mitigation. GST1 noted that four-fifths of the total global carbon budget (GCB) consistent with keeping global warming below 1.5°C has already been spent. Profligate historical emissions are the reason we have little GCB remaining. South Africa follows the spirit of GST1, which takes into account historical responsibility and responsibility for the future. It would not be fair to expect poor communities to forego survival emissions, in this context. We considered the required ranges, based on IPCC AR6, of global mitigation pathways consistent with collectively achieving the long-term goals of the Paris Agreement, while affirming that how global ranges are translated to national scale is a matter of equity. SA is of the view that aligning any single NDC with limiting global warming to 1.5°C can be done robustly only when addressing differences in timescales, spatial scales, and equity. We look forward to a conversation to agree equity indicators, building on the work in the GST, including its technical dialogue. Meanwhile, we expect developed countries, having peaked, to continue to take the lead by much more rapidly decreasing their emissions. While putting forward mitigation targets and actions consistent with our highest possible ambition, the greater responsibility and capability of developed countries means they must undertake more ambitious mitigation and provide support, including finance, technology and capacity-building, to developing countries including South Africa.

We thus respond to the call to contribute to global efforts in GST1, as we nationally determine pathways and approaches to our just transition. Our electricity plan envisages adding significant green energy sources to the South African power system, as reflected in detail in the updated IRP 2025, and the South African Renewable Energy Masterplan puts forward a clear plan on how to develop the renewable energy components industry by building renewable energy and storage value chains, through localization drives on both the public and private sector markets. The IRP 2025 indicates that a total of 44 GW of new renewable energy capacity will be installed by 2035, thus contributing to green industrialization and helping to achieve the mitigation targets in this second NDC.

In common with other developing countries, and especially African countries, the cost of capital for these investments must be reduced to avoid unsustainable debt levels, and grant finance will remain important for climate-friendly systems and technologies that still have an incremental cost. We will



implement our long-term decarbonization strategy in a just, orderly and equitable manner, so as to achieve net zero CO₂ emissions by 2050 within a context of sustainable development. Universal and affordable access to energy services is a national goal, and understood as helping to achieve SDG7 globally. We also note that the GST1 outcome on mitigation reaffirms, explicitly, the nationally determined nature of NDCs. For South Africa, Article 4.4 is of the highest importance. We are continuing to enhance our mitigation efforts.

Fulfilling its obligation under Article 4.2 of the Paris Agreement, South Africa continues to pursue domestic mitigation measures, with the aim of achieving the objectives of our NDC.

We have undertaken detailed analysis and modelling of mitigation policies and measures, as part of our preparation of this second NDC (UCT 2025b) to implement between now and 2035, and those that can benefit from international climate finance. While our mitigation targets do not take the form of PAMs, and how our mitigation targets are achieved is our prerogative to adjust, some domestic mitigation measures are elaborated in ICTU (row 7d), which also provides information on possible use of internationally transferred mitigation outcomes (5g).

There is significant interannual variation in emissions from the land sector, and in particular natural disturbances – in South Africa stemming mainly from wildfires – and this variability is likely to grow with further climate change. In this regard, South Africa has decided to continue its accounting practice for natural disturbances that it adopted in its initial NDC update (see section 4(b) of South Africa's first NDC. That is, for accounting against our NDC target, land sector emissions arising from natural disturbances will be excluded from total land sector emissions/sinks. This is expected to reduce South Africa's total emissions estimate in the target year by 5-30 Mt CO₂-eq. More information is provided in Table 4.

South Africa has considered how the 2035 mitigation target range is a fair and ambitious contribution to the long-term goals of the Paris Agreement, through fair share analysis up to 2035, and just transition to net zero CO₂ emissions by 2050. Equity and ambition relate to mitigation, adaptation and finance, and are addressed in an integrated manner as matters of equity and science (section 7. below).

South Africa significantly increased the ambition of our mitigation target range for 2030, when updating our first NDC. In this second NDC, we communicate a mitigation target range for the period of implementation ending in 2035. The mitigation target range for 2035 is a significant reduction from the 2030 target range. We continue to show progression in our mitigation targets, as elaborated in information necessary for clarity, transparency and understanding (see Table 4 below, 6a).

The extent to which South Africa can achieve this mitigation target, and particularly the lower end of the range, relates to the quantum of support that developed countries continue to provide and mobilise to support country-driven mitigation strategies, consistent with Article 9. Support requirements are elaborated in section 6. below.

South Africa considers implementation to be part of ambition. Within each period of implementation, South Africa will report in its BTRs on progression in achieving its mitigation target in the end year. Given that national GHG emissions have peaked, and been roughly flat for some time, South Africa is moving into the phase of decline of its emissions.

South Africa considered equity in mitigation, including fair shares, for which there is a wide range of analyses – given that global warming levels such as 1.5°C are assessed to 2100, that limiting temperature increase depends on all countries, and that fair share assessments are dependent on the choice of indicators used to approximate equity.



South Africa, in our LT-LEDS and Just Transition Framework, expressed a commitment to implement a just transition to net zero CO₂ emissions by 2050. Equity in transitions is essential to address the socio-economic implications of mitigation, while showing progression in mitigation in successive mitigation targets in NDCs.

d. Just transition to net zero carbon emissions by 2050

As Parties to the Paris Agreement, we have urged each other to include just transitions to net zero emissions by or around mid-century in our long-term low GHG emissions development strategies (LT-LEDS), in decisions 1/CMA.3, 1/CMA.4 and 1/CMA.5 (the GST outcome). South Africa takes our just transition very seriously, and included net zero CO₂ emissions by 2050, in our 2020 LT-LEDS pursuant to Article 4.19 and our Just Transition Framework. Taking into account our national circumstances, and the priorities to create employment and protect livelihoods while reducing emissions, we have nationally determined the year as 2050 and CO₂ emissions as the relevant greenhouse gas. Development narratives and emission pathways by which we can reach net zero CO₂ emissions by 2050 will be elaborated and quantified in our next LT-LEDS, which we are currently preparing. For this second NDC, just transitions to net zero CO₂ emissions provide a long-term perspective on nearer-term mitigation targets and their implementation, and frames ambition and equity in the longer term.

Our just transition will require shifting our development path toward increased sustainability, social inclusion, and a low emissions and climate-resilient future for all. Distributive justice requires that the risks and opportunities resulting from such transitions must be shared fairly, cognisant of gender, race, and class inequalities, consistent with a just transition framework. A structural transformation requires diversifying our economy away from a dependence on fossil fuels, in a just, orderly and equitable manner, and informed by best available science and sustainable development priorities. We aim to achieve low unemployment, net zero carbon dioxide emissions and zero hazards, with social protection especially for vulnerable workers and communities. It is a challenging undertaking to implement a just energy transition, and South Africa is taken on this generational challenge. As we diversify our economy's energy sources, the opportunities arising from structural transformation lie in delivering social justice and accelerating mitigation. Policies and measures that promote inclusive green industrialisation must integrate decarbonisation and economic diversification. Industrial policy will include beneficiation of critical transition minerals, ensuring national employment creation and participating in sustainable and equitable ways in green global value chains. Such mitigation policies should be more inclusive, including achieving gender balance in green jobs and inclusive decision-making processes around low economic development.

Ambition is integral to achieving net zero CO₂ emissions by 2050. For developing countries, reaching this goal by 2050 is ambitious, and contributes to the global long-term goal on mitigation, under Article 4.1.

Equity in mitigation relates to rates of change, competitiveness and socio-economic implications of mitigation. While transformations in major systems are required in response to the climate crisis, very rapid change is disruptive, as was made clear in GST1. Very rapid rates of change as seen in steep modelled mitigation pathways would become unmanageable, and severe negative socio-economic impacts on workers and communities would be inequitable. Structural transformation should aim at social justice and accelerate mitigation actions. Competitiveness in a carbon-constrained future would position South Africa in the future global economy, through just structural transformation and green industrial policy, aimed at reducing emissions and increasing employment.



The socio-economic implications of mitigation are central to making our transition just. For each mitigation pathway, we considered socio-economic implications, and how they can increase employment, reduce poverty, keep energy prices affordable. Health is a key dimension of human development. In this regard, the co-benefits of mitigation in improving air quality is significant.



6. Support and means of implementation as provided for in Articles 9, 10 and 11 of the Paris Agreement

The support section of the NDC consists of three components: Firstly, support requirements are summarized qualitatively; secondly, the costs of both mitigation and adaptation measures, as well as funding for loss and damage, are outlined; and thirdly, South Africa's goal for accessing international support is defined. South Africa accessed approximately USD 2 billion (ZAR 36 billion) per year of international climate finance in 2018 and 2019, which mobilized additional public and private resources. The country aims to maintain the access goal stated in the 2021 NDC of USD 8 billion (ZAR 160 billion) annually by 2030, leveraging private sector contributions estimated at USD 3–10 for each USD of public finance. This goal will be reviewed in preparing the third NDC in 2030 to reflect both South Africa's capacity to raise climate finance and evolving mitigation and adaptation needs. The resource requirements presented here may change in response to evolving circumstances, but international assistance in climate finance and technology will remain pivotal to the successful implementation of this NDC.

South Africa remains committed to contributing to the global efforts of meeting the objectives of the Paris Agreement whilst ensuring that the overriding national priorities of poverty eradication, reducing unemployment and addressing inequalities as outlined in the NDP and other macro policies are met. South Africa is grateful for the support provided by developed country Parties in relation to the implementation of Article 9.1 of the Paris Agreement and Article 4 of the UNFCCC, whilst noting the finance gap that still exists in order to meet its commitments. International support is accessed through multilateral channels such as the Global Environment Facility (GEF), Climate Investment Funds, Green Climate Fund (GCF), and Adaptation Fund, as well as through multilateral development banks and numerous bilateral channels. Since 2006, South Africa has been both a recipient of and a contributor to the GEF. Significant international cooperation has been secured, including pledges following the announcement of the Just Energy Transition Partnership at the Glasgow COP in 2021. Accredited entities to the GCF have been able to both provide and mobilize private sector resources to support climate actions. South Africa continues to welcome additional resources through bilateral, regional, and international cooperation, as recognized under Articles 4.5 and 6 of the Paris Agreement, and through the full implementation of the New Collective Quantified Goal to expedite access to financial resources for mitigation and adaptation efforts.

The total investment required to implement South Africa's mitigation and adaptation actions over 2026–2035 is summarized in Table 3 below.

Table 3: The total investment required to implement South Africa's mitigation and adaptation actions over 2026–2035

Component	Total investment (2026–2035)	Annual average
Adaptation	ZAR 250 billion	ZAR 25 billion/year
Mitigation	ZAR 3.47 trillion	ZAR 347 billion/year

These totals represent the full estimated investment required, not only the portion for which South Africa seeks international support, and are not incremental to business-as-usual costs. Detailed sectoral and programme-level breakdowns of mitigation and adaptation actions are provided in Sections 3 and 5 of this NDC, and technical reports (UCT 2025a, b). Estimates may evolve as

technologies, policies, and economic conditions change, and some emerging sectors, such as green hydrogen, and certain adaptation interventions may not yet be fully costed.

- The adaptation total reflects the investment required for 36 priority adaptation projects over the next 10 years and does not capture the full extent of South Africa's adaptation needs, previously estimated at around USD 4 billion per year.
- Mitigation totals include baseline or no-regret investments needed across multiple pathways, such as infrastructure upgrades, coal plant decommissioning, workforce support, and EV deployment. Totals indicate the overall investment envelope and do not reflect precise allocations by sector, timing, or financing instrument.

South Africa will mobilise these investments through domestic resources, international climate finance, and private sector contributions. A comprehensive financing strategy will be developed to implement the second NDC, including core indicators and targets for 2035, mechanisms for technology development and transfer, capacity building, and governance structures such as the Climate Change Response Fund. These mechanisms will enable South Africa to track progress, identify funding gaps, and ensure resources are directed to priority actions in both adaptation and mitigation.

The NDC investment and finance plan may detail the commitments underpinning a low-emissions and climate-resilient development pathway, identify potential barriers, and outline actions to ensure commitments are met. Identifying costs and funding sources for each initiative will help pinpoint investment needs and potential funding gaps early. Drawing on stakeholder engagement, the plan may also guide prioritization of resources to achieve climate goals.

Based on the 2023 South African Climate Finance Landscape Report prepared by the Presidential Climate Commission, South Africa will develop a results management framework with key performance indicators to track climate finance access and mobilisation, including:

- Significantly increasing access to adaptation finance (currently 12%)
- Broadening the application of innovative financial instruments, such as guarantees, equity, and other non-debt instruments (currently 18%)
- Expanding access to insurance and pre-arranged finance to respond to loss and damage (USD 2 billion)
- Mobilizing and leveraging additional private sector contributions
- Increasing access for local government climate actions

These totals and key performance indicator provide a high-level view to inform planning for international support, resource mobilization, and investment prioritization but do not constitute precise commitments for individual programmes. South Africa remains committed to contributing to global efforts under the Paris Agreement while addressing national priorities of poverty eradication, reducing unemployment, promoting equity, including by ensuring that gender equity will be mainstreamed into implementation of the NDC.



7. Equity and science

Science and equity are fundamental bases of South Africa's approach to climate change. Equitable access to sustainable development is essential, as elaborated in our previous NDCs. Ambition and equity, based on best available science, were important considerations in the first GST. Equity and ambition apply across all domains of climate action: mitigation, adaptation, finance, addressing loss and damage and support. This is the case in GST1, and we apply this approach in our NDC. We explain how we consider this second NDC to be fair and ambitious, as required by decision 4/CMA.1. We do so across this second NDC, with an integrated discussion here, as well as in ICTU and ways to track progress in section 8. below.

On mitigation, we have considered how the mitigation target range for 2031-2035 relates to fair shares, assessed as explained in ICTU (6a). We are showing progression in considering equity and ambition. We have added an additional tool to consider fair shares, the Climate Equity Monitor. The outcome of GST1 underlined that just transitions can support more robust and equitable mitigation outcomes, with tailored approaches addressing different contexts. In our context, reducing unemployment, poverty and inequality have the highest priority. Equity in mitigation is also framed by our just transition to net zero CO₂ emissions by 2050. This provides a long-term perspective on nearer-term mitigation action and support.

On adaptation, the adaptation goals set out in Table 1 include ways to track progress, which demonstrates our commitment to science and in particular, strengthening the MEL system for adaptation and enhancing the evidence base on climate-related loss and damage. We are responding with ambition, noting the deep injustice that poor countries and communities are least resourced to adapt. The unequal burdens are reflected in scientific nationwide vulnerability assessments, which show that inadequate access to water, sanitation, food security, and safe housing significantly heighten risks for the most marginalized, particularly in rural and informal urban areas. Unequal burdens and adaptive capacities across municipalities and government levels mean that adaptation has to be just. Just adaptation means processes that are procedurally fair and socially inclusive. Distributional equity requires finance for adaptation, to which we are contributing, while expecting adequate support for adaptation through international climate finance. As science confirms that global warming is likely to exceed 1.5°C, scaled-up support becomes even more urgent. South Africa therefore expects its fair share of international climate finance to implement adaptation and to address loss and damage.

Finance that is fair and ambitious is essential for ambitious action. We have outlined in this second NDC that we have established new funds, and will seek to fill these from domestic and international sources. The first GST considered means of implementation and support: finance, technology and capacity building. The GST outcome highlighted the "growing gap between the needs of developing country Parties, ... and the support provided and mobilized for their efforts to implement their nationally determined contributions, highlighting that such needs are currently estimated at USD 5.8-5.9 trillion for the pre-2030 period". We expect that international climate finance will be scaled up, consistent with the GST1 outcome, and finance to be commensurate with 1.5°C.



8. Information to facilitate clarity, transparency and understanding of mitigation, and ways to track progress of adaptation and support

a. Information to facilitate clarity, transparency and understanding

Table 4: Information to facilitate clarity, transparency and understanding of South Africa's second NDC

Provisions and sub-provisions of Annex I to decision 4/CMA.1	Information provided in respect of South Africa's Second NDC
1. Quantifiable information on the reference point (including, as appropriate, a base year):	This section is not applicable to the South African NDC, since this second NDC does not define mitigation target in relation to a reference point, but as a fixed level GHG emissions range in 2035. Therefore, each entry below is marked "Not applicable". This approach remains the same as specified in the updated NDC in 2021.
(a) reference year(s), base year(s), reference period(s) or other starting point(s);	Not applicable, as above
(b) Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year;	Not applicable, as above
(c) For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or policies and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information;	Not applicable, as above
(d) Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction;	Not applicable, as above
(e) Information on sources of data used in quantifying the reference point(s);	Not applicable, as above
(f) Information on the circumstances under which the Party may update the values of the reference indicators.	Not applicable, as above



Provisions and sub-provisions of Annex I to decision 4/CMA.1	Information provided in respect of South Africa's Second NDC
2. Time frames and/or periods for implementation:	
(a) Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement;	The South African NDC is defined as having a timeframe of five years, as we have done previously. We are pleased that all Parties have now agreed to common timeframes, which facilitates a more harmonious approach. The period of implementation in this second NDC is: 1 January 2031 to 31 December 2035.
(b) Whether it is a single-year or multi-year target, as applicable.	South Africa's mitigation targets as stated in this NDC is a single-year target for the year 2035, expressed as a GHG emissions range.
3. Scope and coverage:	
(a) General description of the target;	The target is an economy-wide emission reduction target range, in absolute units of Mt CO₂-eq, with quantities specified in Table 2. In 2035, South Africa's annual GHG emissions will be in a range of 320-380 MtCO₂-eq. Note that "GHG emissions" are defined as total net GHG emissions as specified in the national inventory report for 2035, including all sectors, and excluding emissions from natural disturbances in the land sector.
(b) Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change guidelines.	The mitigation target contained in South Africa's second NDC covers all gases, sectors and sources estimated in South Africa's first BTR (contained in the National Inventory Document submitted with the BTR), excluding emissions from natural disturbances in the land sector. If the coverage of the NID is extended to additional gases, sectors and sources in future BTRs, South Africa may choose to extend the scope of the 2035 target to include these. Since South Africa will use an inventory-based approach for accounting against the NDC target, the NDC is fully consistent with the 2006 IPCC guidelines, as specified in the Annex to decision 18/CMA.1.
(c) How the Party has taken into consideration paragraph 31(c) and (d) of decision 1/CP.21;	As above.



Provisions and sub-provisions of Annex I to decision 4/CMA.1	Information provided in respect of South Africa's Second NDC
(d) Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans.	The mitigation targets in South Africa's NDC are not defined in terms of mitigation co-benefits of adaptation actions and/or economic diversification plans.
4. Planning processes:	
(a) Information on the planning processes that the Party undertook to prepare its nationally determined contribution and, if available, on the Party's implementation plans, including, as appropriate:	
(i) Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner; if available, information provided on a Party's implementation plans;	Institutional arrangements and planning process for the NDC: The DFFE, the national focal point for climate change in South Africa, led the planning process in preparing South Africa's second NDC. The process for this second NDC had five parts: technical analyses (UCT 2025a, UCT 2025b, UCT 2025c), consultation within government, consultation with broader stakeholders, provincial public stakeholder workshops, and finalisation in government and Cabinet. Public consultation and participation: The DFFE conducted stakeholder consultations in all nine South African provinces, accessible to local government, undertaken in a gender-responsive manner.
(ii) Contextual matters, including, inter alia, as appropriate: a. National circumstances, such as geography, climate, economy, sustainable development and poverty eradication; b. Best practices and experience related to the preparation of the nationally determined contribution. c. Other contextual aspirations and priorities acknowledged when joining the Paris Agreement.	See section 2 Context: National priorities and circumstances.
(b) Specific information applicable to Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement,	Not applicable.



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including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16–18, of the Paris Agreement;	
(c) How the Party's preparation of its NDC has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement.	South Africa's preparation of our second NDC has been informed by the outcome of the first global stocktake (GST1), in several ways. Technical analysis informing preparation of this NDC included detailed consideration of the outcome of GST1, across the broad scope of mitigation, adaptation, loss and damage, response measures, and means of implementation and support (finance, technology and capacity building), see UCT (2025c). Furthermore, we approached the second NDC in the spirit of the GST, emphasizing ambition and equity, informed by best available science. The technical phase identified specific implications of GST1, including its technical findings and particularly its political outcome in decision 1/CMA.5, for this second NDC. These included, but are not limited to: i. This second NDC makes multiple references to 1.5°C and its relevance to mitigation, adaptation and finance; see further details in row 7(b) of ICTU; ii. In selecting a mitigation target range as detailed in Table 2, we took into account the mitigation section of decision 1/CMA.5, including but not limited to the just energy transition package; considered fair shares and a just transition to net zero CO₂ emissions by 2050 (see also 5d and 7), and explicitly frame our contribution to the long-term goal on mitigation; iii. In this second NDC, we highlight the importance of economic diversification, including green industrialisation, identified in GST1 as key to managing the impacts of response measures; iv. In revising our national adaptation goals (3. c.), we took into account the adaptation section of the GST outcome and decision 2/CMA.5 on the GGA; indicating how they relate to thematic goals agreed globally, and consider our goals a fair and ambitious contribution to the GGA; v. On institutional arrangements, this second NDC includes reference to an inventory of impacts, which we consider an important outcome of GST1, which can enhance information to inform action on adaptation and loss and damage;



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	vi. We have considered just adaptation, important in our domestic preparations and informed by discussion in GST1; vii. On finance, this second NDC makes clear that the extent to which SA can achieve its full ambition is related to the extent to which support is mobilised and provided, an important outcome on finance of GST1; and we have established funds for climate action.
(d) Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on:	Not applicable.
(i) How the economic and social consequences of response measures have been considered in developing the nationally determined contribution;	Not applicable.
(ii) Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries.	Not applicable.
5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:	
(a) Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the	South Africa will use a GHG inventory-based approach in accounting for the mitigation component of our second NDC, for the period of implementation from 2031 to 2035. In accounting for anthropogenic emissions and removals corresponding to our NDC, we have



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Party's nationally determined contribution, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA;	promoted environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting; and provide further information in this regard here. South Africa's national inventory reports are prepared in accordance with decision 18/CMA.1, and any subsequent applicable CMA decisions. Progress and achievement will be accounted for by comparing the target ranges in 2035 with the annual emissions contained in South Africa's GHG inventory for all sectors, excluding emissions arising from natural disturbances in the land sector. Emissions arising from natural disturbances will be disaggregated in the NIR for each relevant IPCC category and reported separately, and used as the basis for accounting for implementation and achievement of the NDC targets. South Africa intends to perform corresponding adjustments in accounting for its NDC target in accordance with relevant decisions taken by the CMA in relation to Article 6 and the structured summary for implementation and achievement of its NDC. We note that in BTR1 (Dec 2024), we reported that South Africa had not entered into any cooperative approaches that involve the use of ITMOs, or authorised any issuance of 6.4 units; should this change, we will report accordingly. South Africa will account for its second NDC in accordance with the guidance contained in Annex II to decision 4/CMA.1.
(b) Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution;	Not applicable to South Africa's NDC. South Africa's NDC target is expressed in GHG emissions terms rather than in terms of policy goals.
(c) If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate;	Information on accounting is contained in 5(a) above.

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(d) IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals;	IPCC methodologies: 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Metrics: South Africa currently uses 100-year Global Warming Potential (GWP) values from the IPCC's 5th Assessment Report.
(e) Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable:	
(i) Approach to addressing emissions and subsequent removals from natural disturbances on managed lands:	In South Africa's ninth NIR, South Africa's entire land area is considered "managed" for purposes of estimating emissions and removals from the land sector. For the purposes of accounting for South Africa's NDC target, emissions from natural disturbances will be excluded from total net greenhouse gas emissions.
(ii) Approach used to account for emissions and removals from harvested wood products;	South Africa uses a production approach.
(iii) Approach used to address the effects of age-class structure in forests;	Not applicable – South Africa does not use this approach.
(f) Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including:	
(i) How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used;	Not applicable – South Africa does not have a reference indicator.
(ii) For Parties with nationally determined contributions that contain non- greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable;	Not applicable – South Africa does not include non-GHG components in its NDC mitigation target.



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(iii) For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated;	Not applicable – South Africa does not include black carbon, since it is not a substance controlled by the UNFCCC or Paris Agreement.
(iv) Further technical information, as necessary.	Not applicable.
(g) The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable.	South Africa expects most mitigation to result from domestic measures. Any international transfers of mitigation outcomes (ITMOs) will promote sustainable development and ensure environmental integrity and transparency, including in governance, and apply robust accounting to ensure, inter alia, the avoidance of double counting. To these ends, we will apply the standards and methodologies of the Paris Agreement Crediting Mechanism as well as guidance on cooperative approaches. These will be further elaborated in a domestic guiding framework to elaborate on host country responsibilities and other domestic requirements. We will account for any ITMOs transferred to other Parties as specified in decisions of the CMA. South Africa will report corresponding adjustments as part of the structured summary in our BTRs. South Africa will further consider Article 6.8 non market approaches in further implementing climate action that does not lead to generation of ITMOs.
6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances:	
(a) How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances;	The second NDC has outlined how South Africa considers its contribution to be fair and ambitious, across climate action and support. Here, information to facilitate clarity, transparency and understanding of fairness and ambition is provided, which should be read together with the sections on adaptation, mitigation and support, and integrated holistically in the section on equity and science, below. South Africa bears a disproportionate burden of adaptation to the adverse impacts of climate change (UCT 2025a). It is an injustice that with a relatively small share of historical cumulative emissions, our economy has been disproportionately negatively affected by climate change. Poor communities have low capacity to adapt, are most vulnerable to climate hazards, and are already suffering losses and damages. South Africa is actively developing both the idea and practices of just adaptation, within a framework of a just transition. Just adaptation must ensure distributional and procedural equity, be guided by principles and operationalized in



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	implementing adaptation actions. The unequal burdens are reflected in scientific nationwide vulnerability assessments, which show that inadequate access to water, sanitation, food security, and safe housing significantly heighten risks for the most marginalized, particularly in rural and informal urban areas. Procedural equity means ensuring that marginalized groups are included in defining adaptation agendas. Providing long-term and predictable finance, and direct access to funding, is important for distributional equity. This further means investing in capability of local communities, and institutions supporting them. Just adaptation will inform how South Africa is approaching the increasing level of ambition in this second NDC. More ambitious adaptation targets will be achieved if adaptation is just, and greater ambition in adaptation actions in turn means less injustice resulting from climate impacts. Nevertheless, we have invested in adaptation, and thus made a fair contribution to the global effort (see section 3c). GST1 noted with concern that that adaptation finance gap is widening, and that current levels of support are insufficient to meet needs of developing countries. South Africa considers it essential that this outcome of the GST is implemented, as a matter of equity and ambition, that finance for adaptation is rapidly scaled up by developed countries, and access to all funding simplified. South Africa expects its fair share of international climate finance to implement adaptation and to address loss and damage. South Africa is strongly of the view that equity should be a primary consideration when considering countries' fair shares of the total global carbon budgets (GCBs), both the four-fifths of GCB spent by historical emissions and small remaining future GCBs. Analysis of relative fair shares for South Africa in relation to mitigation was reviewed in the process of preparing the second NDC (UCT 2025c). The analysis reviewed relevant literature and drew on three publicly available tools. Each of the three equity-based frameworks - the Climate Equity Reference Calculator, Climate Equity Monitor, and Climate Action Tracker – apply distinct methodologies and assumptions to determine what might constitute a fair contribution by South Africa to limiting global warming to 1.5°C or 2°C. As in earlier analysis for NDCs, the CERC approach aligns well with the equity principles South Africa values and prioritizes – taking into account responsibility and capability, as well as the right to promote sustainable development and the need to prioritize development for those living in poverty. Taken together, and noting limitations, these tools were used as a



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	guide to South Africa's "fair share" of global emissions of the long-term temperature limits contained in Article 2.1(a) of the Paris Agreement (UCT 2025c). It should be noted that these relative fair shares for South Africa imply corresponding fair shares for other countries (UCT 2025c). South Africa expects that adequate international support will be provided for both adaptation and mitigation, as a matter of fairness, as provided for in the Paris Agreement. We also assumed that South Africa will receive a fair share of international climate finance for mitigation, and adaptation. We also expect a fair share of funding address loss and damage, through the Fund for responding to loss and damage.
(b) Fairness considerations, including reflecting on equity;	As above, in 6(a).
(c) How the Party has addressed Article 4, paragraph 3, of the Paris Agreement; (Article 4.3 states that "Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.")	South Africa's updated mitigation targets as contained in Table 2 represent a significant progression. The reduction of the mitigation target range for 2035, compared to 2030, are a 10% reduction at the upper end, and a 9% reduction at the lower end of the range. As noted in the 2021 update, the upper end of the target for 2030 was reduced by 30%. The mitigation target range for 2026-2030 was communicated in the 2021 updated NDC with a significant increase in ambition, which is maintained in this second NDC. The mitigation target range for 2031-2035 is communicated for the first time in this second NDC, showing progression in mitigation ambition. When preparing and communicating its third NDC in 2030, South Africa will consider whether the level of ambition for 2031-2035 can be increased further, in accordance with relevant decisions and provisions of the Paris Agreement, and in response to changes in the GHG inventory, its national circumstances, and in response to the latest science and the 2027-2028 global stocktake, technology developments, and the availability of international support.
(d) How the Party has addressed Article 4, paragraph 4, of the Paris Agreement; (Article 4.4 states that "Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts,	South Africa had already moved in its first NDC to economy-wide emission reduction or limitation targets, and is now showing progression by continuing reductions after peaking of our national emissions. South Africa continues to enhance our mitigation efforts, with the implementation of policies, programmes and plans with significant mitigation outcomes,



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and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances.”)	including our Integrated Resource Plan for electricity, Green Transport Strategy, draft post-2015 National Energy Efficiency Strategy, carbon tax, and the Just Energy Transition-Investment and Implementation Plans. South Africa takes an all-of-economy, all-of-society approach to climate action, including achieving the necessary pace of mitigation, while managing disruptive effects, to ensure systems transformations proceed in a just, orderly and equitable manner.
(e) How the Party has addressed Article 4, paragraph 6, of the Paris Agreement. (Article 4.6 states that “6. The least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances.”)	Not applicable, since South Africa is neither a least developed country nor a small island developing state.
7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2:	
(a) How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2; (Article 2 of the UNFCCC states that “The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”)	South Africa reaffirms its commitment to the objective of the Convention, as indicated in our first NDC. Nationally determined targets and goals have been chosen to reflect South Africa's fair contribution towards the long-term temperature goal of the Paris Agreement, noting its connection to the long-term goal on mitigation and the global goal on adaptation, as well as the importance that climate finance be commensurate with the long-term temperature goal, and with the goal of limiting global warming to 1.5°C in particular. In the current context of crises, including climate and geopolitical crises, we highlight the importance of global solidarity, and of a strong multilateral system based on international law. The Convention's Article 2 remains salient, including the imperative to “ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner”. We also reaffirm that the achievement of the objective of the Convention must be guided by its principles, as stated in the preamble of the Paris Agreement. Parties to the Paris Agreement are Parties to the Convention.
(b) How the nationally determined contribution contributes towards Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement.	Article 2.1 (a) of the Paris Agreement outlines the global temperature goal of limiting increase to “well below 2°C”, and “pursuing efforts to limit the temperature increase to 1.5°C” above



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	pre-industrial levels. In this second NDC, South Africa contributes to the global temperature goal, in several respects. There has been increasing emphasis on keeping 1.5°C alive, and South Africa supports this goal, while mindful that temperatures are exceeding this limit temporarily already. In preparing our second NDC, we have taken account of the best available science, as assessed in the IPCC's Sixth Assessment Reports. We also considered the first GST, and the technical finding of the technical dialogue that "there is a rapidly narrowing window to raise ambition and implement existing commitments in order to limit warming to 1.5°C above pre-industrial levels". Higher ambition is needed, yet equity means that global pathways to not apply uniformly to each country. We took into account the mitigation section of the GST outcome, decision 1/CMA.5 paragraphs 18-42 – which points to the fact that four-fifths of the total global carbon budget has already been spent, the small remaining GCB, the median emission reductions needed by 2030, 2035 and 2050, among several other dimensions. We also took note of findings that every increment of global warming matters, that increased climate impacts mean a greater need for adaptation and associated costs, and that increasing warming levels mean more losses and damages. The implications of Article 2.1 (a) thus apply to all aspects of climate action and support. Our second NDC correspondingly makes a fair and ambitious contribution to adaptation, addressing loss and damage and mitigation, provides information on investments we are making and finance needed. South Africa was encouraged by an increasingly shared understanding of equity that emerged during GST1, relating multiple dimensions of justice to the broad scope of climate action and support. Yet, we note that there is still no internationally agreed equity reference framework. In preparing this second NDC, we take into account historical emissions and responsibility for the future. Within the context of the Paris Agreement's principles of equity and common but differentiated responsibility, in the light of different national circumstances, we communicate this second NDC to reflect our highest possible ambition. This second NDC is South Africa's fair and ambitious contribution to the long-term global goal for mitigation (LTG-M), set out in Article 4.1 of the Paris Agreement. The LTG-M refers to global peaking as soon as possible, recognizing that peaking will take longer in developing countries, and the need for rapid reductions for those that have peaked. The LTG-M seeks to achieve "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases", commonly referred to as "net zero emissions". The LTG-M is clear that it must be



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	achieved “on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.” Our national GHG emissions including LULUCF reached their highest value of 529 Mt CO₂-eq in 2008, as reported in the 9th NIR over the period 2000-2022, and were 435 Mt CO₂-eq in 2022. Based on modelling for this NDC (UCT 2025b), no credible scenario was found in which GHG emission will exceed 435 Mt CO₂-eq again. We have started implementing a just transition to net zero CO₂ emission by 2050. Reducing emissions after peaking, while ensuring sustainable development, is a fair and ambitious contribution to the LTG_M. We urge all Parties to treat with the utmost seriousness the considerations of equity, sustainable development and poverty eradication. In our Long-Term Low Emissions Development Strategy, communicated voluntarily under Article 4.19, South Africa committed “to ultimately moving towards a goal of net zero carbon emissions by 2050, which will require various interventions to reduce greenhouse gas emissions. This goal, how it will be achieved to ensure a just transition, and how the economic advantages of the transition will be maximised, will be formally communicated in future iterations of this strategy.” (RSA 2020b: emphasis added). The Presidential Climate Commission has developed a framework for a just transition in South Africa, which includes in its definition of a just transition for our context: “A just transition aims to achieve a quality life for all South Africans, in the context of increasing the ability to adapt to the adverse impacts of climate, fostering climate resilience, and reaching net-zero carbon emissions by 2050, in line with best available science” (PCC, 2022; emphasis added). It is by leaving no-one behind that South Africa will contribute to achieving the collective goals of the Paris Agreement.



b. Ways to track progress of adaptation and reporting on loss and damage

South Africa will continue to enhance monitoring and evaluation (M&E) systems to track progress towards national adaptation goals and to learn from and adjust, based on what is and is not delivering on adaptation outcomes. Our first NDC had referred to monitoring for water and health. M&E systems, including indicators, will be developed for each of the goals in this second NDC.

Indicative ways of tracking progress are included in Table 1. These ways of tracking will enable the deepening of understanding of the extent to which interventions are being implemented and each of the eight goals are being realised. South Africa will develop indicators that quantify the metrics in Table 1. This will enable transparent domestic and international reporting, including in regular adaptation synthesis reports, and continuous improvement over time.

Institutional arrangements will be crucial for effective M&E. The multi-hazard early warning system will be strengthened by an inventory of impacts, involving local communities in data collection. The South African Weather Service will continue to update climate data on the Climate Information Portal and National Hazardous Events Database. Additionally, the Tracking & Evaluation Portal, a sub-module of the National Climate Change Information System, will monitor South Africa's progress towards NDC goals, via provincial and municipal inputs.

We will continuously improve M&E processes, and highlight the importance of ongoing support and capacity-building. This includes the provision of support for building transparency-related capacity of developing country Parties on a continuous basis, by involving diverse stakeholders, including government agencies, research institutions, and local communities. Our approach will ensure that our actions to adapt to climate impacts and respond to loss and damage are adequate and effective, inclusive, and responsive to increasing global warming levels.

South Africa will enhance its reporting on loss and damage associated with climate change impacts. This will involve comprehensive data collection and analysis to assess the extent of damage to infrastructure, property, and livelihoods caused by slow onset and extreme weather events, and reporting on economic and non-economic losses and damages. South Africa's National Disaster Management Centre will play a central role in this enhanced reporting system.

c. Information to facilitate tracking of support received

Reporting on support received is overseen by the DFFE. It does so in collaboration with other government departments, such as National Treasury in relation to finance, as well others in relation to technology and capacity-building, as well as stakeholders.

In relation to finance, South Africa will continue to collect and document information to facilitate tracking of international climate finance received. We will identify and document finance for mitigation, adaptation, and loss and damage, from sources including multilateral and bilateral support. Financial support will be classified as multilateral if it involves multiple countries or entities. The types of financial instruments used will include grants, concessional loans, and equity.

As reported in South Africa's BTR1 in 2024, the country received a total of USD 827.69 million in international financial support during the period 2021–2022, averaging USD 413.85 million per year. Of this amount, approximately 80% was provided in the form of loans, 6% as grant provided for mitigation, with a very small part (less than 1%) allocated exclusively to adaptation. BTR1 also reported the financial support needed to implement the country's NDC. An estimated USD 344 billion will be required by 2030 to support both the full implementation of the just energy transition and to bridge the gap between the country's adaptation needs and costs. BTR1 also reported the financial support



needed to implement the country's 2021 updated NDC, with higher costs for this second NDC. An estimated USD 344 billion will be required by 2030 to support both the full implementation of the just energy transition, and to bridge the gap between the country's adaptation needs and costs.



9. Uncertainties

In the 2021 update for our first NDC, significant uncertainties were identified in relation to COVID-19, including on debt. The context of this second NDC is one of high uncertainty in geopolitics. Geopolitical uncertainties in 2025 include geoeconomic conflicts over tariffs and trade, military conflicts in several countries with risks of escalation, increasing fragmentation within many societies and between countries, risking a return to regional spheres of influence, and more. These uncertainties make triple challenge of reducing unemployment, poverty and inequality even more daunting.

Recommitment by all countries to the multilateral rules-based approach to climate action and support is essential to address uncertainties. The extent to which adaptation measures will need to be implemented will depend on what is achieved globally in terms of mitigation. Furthermore, adaptation actions may be limited, including by inadequate provision of international climate finance. Lack of ambition in mitigation, adaptation and finance is very likely to increase losses and damages. Bridging ambition gaps across mitigation, adaptation and finance is not just necessary to reduce uncertainty – it is imperative to secure our common future.

While the South African greenhouse gas inventory system has consistently improved in its coverage and in the detail and quality of estimation of GHGs, considerable uncertainties remain in this estimation, especially in the land sector. As South Africa improves its systems for estimating land sector emissions, recalculations may result in significant changes in previously reported GHG estimates. In addition, more accurate land sector reporting based on more frequent and granular data will most likely lead to higher variability in GHG emissions from natural disturbances from wildfires, which will also become more common in South Africa as a result of climate change.



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List of Acronyms

Acronym	Full form
AR6	Sixth Assessment Report (IPCC)
BTR	Biennial Transparency Report
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CO ₂	carbon dioxide
CO ₂ -eq	carbon dioxide equivalent
COP	Conference of the Parties
DFFE	Department of Forestry, Fisheries and Environment
FGCR	Framework for Global Climate Resilience
FRLD	Fund for Responding to Loss and Damage
GCB	global carbon budget
GCF	Green Climate Fund
GDP	gross domestic product
GEF	Global Environment Facility
GGA	Global Goal on Adaptation
GHG	greenhouse gas
GST	Global Stocktake
GST1	First Global Stocktake
GWL	global warming level
GWP	global warming potential
ICTU	information to facilitate clarity, transparency and understanding
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
ITMOs	Internationally Transferred Mitigation Outcomes
JETP	Just Energy Transition Partnership
LT-LEDS	Long-Term Low Emissions Development Strategy
LULUCF	Land Use, Land-Use Change and Forestry
M&E	monitoring and evaluation
MEL	monitoring, evaluation and learning
MHEWS	multi-hazard early warning system
Mt	Megatons (million tons)
NAP	National Adaptation Plan
NCCAS	National Climate Change Adaptation Strategy
NDC	Nationally Determined Contribution
NDP	National Development Plan
NGERT	National GHG Emission Reduction Trajectory
NID	National Inventory Document
NIR	National Inventory Report
PCC	Presidential Climate Commission
PPD	peak, plateau and decline



Acronym	Full form
SADC	Southern African Development Community
SAWS	South African Weather Service
SDG	Sustainable Development Goal
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
ZAR	South African Rand



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