South Africa: Climate change, responsibility and liability – the legal system, public and private law considerations

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'Climate change is the apartheid of our times.'
The Late Desmond Tutu, 2019[1]

Abstract

The 2018 water crisis (labelled as 'day zero') in Cape Town was only one example of how severely South Africa is facing the realities of climate change. In fact, the whole African continent is most vulnerable to the impacts of climate change due to a multitude of factors, which shall briefly be highlighted before introducing the fascinating legal pluralistic system of South Africa.

South Africa has been under democracy premised on the supremacy of its Constitution, which became operational after the end of apartheid. Today, South Africa's 1996 Constitution is globally recognised as an instrument inducing major social change grounded in law, achieving substantive justice in a new democratic setting, creating a society, which is totally different from the past in terms of the relationship between the law, public institutions and the people.

The Constitution gives effect to South Africa's international law obligations and the commitment on climate change, which is not only reflected by South Africa's accession to most climate related international law instruments, including the 2015 Paris Agreement, but also its extensive formulation of national climate change policies over the past decade.

For South Africa, the Paris Agreement puts national laws into an African and global context, enabling litigants to construe governments' commitments and actions as adequate or inadequate. South Africa's climate change response, as is explicitly indicated in the Nationally Determined Contribution (NDC), is informed by the findings of the Intergovernmental Panel on Climate Change (IPCC).

South Africa has a considerate climate responsibility, which is not only displayed in the international climate negotiations but also in the national regulatory framework on climate change, which will be analysed in context. Moreover, recent South Afri-

1 Statement in the Financial Times of 3 October 2019 by Nobel Peace Prize award-winner Desmond Tutu (1931-2021), who was a renowned South African Anglican cleric known for his staunch opposition to the policies of apartheid, cf. <www.ft.com/content/9e4befae-e083-11e9-b8e0-026e07cbe5b4> accessed 2 May 2020.

can case law developments shall be discussed while highlighting the contemporary climate policy regime alongside public and private law liability remedies.

1 Introduction

The Republic of South Africa is home to more than 55 million people.[2] It is located at the southern tip of the African continent, bordered by Botswana, Mozambique, Namibia, Lesotho, Swaziland and Zimbabwe. There are a number of factors that contribute to the geostrategic relevance of South Africa. One of these factors is that South Africa is arguably the most developed country in Africa, with very important ports and an exceptionally well-functioning infrastructure. Further, South Africa is also a weighty political actor on the continent, being one of the few African countries ranked as an upper-middle income country and the only African country with a G20 seat.[3] Moreover, South Africa is one of the few emerging economies in Africa and a member of BRICS.[4] BRICS proclaims to be committed to playing its part in the global fight against climate change and to contribute to the global effort in dealing with climate change issues through sustainable and inclusive growth, and not by capping development.[5]

The per head CO_2 emissions in South Africa are thirty times higher than in countries such as Kenya and forty percent in excess of the EU average.[6] South Africa has a buoyant coal-to-gas conversion industry, which meets approximately 30% of its domestic transportation fuel-oil demand needs. The economy has always been highly

2 The World Bank, 'Population, total – South Africa' <https://bit.ly/3Djjb03> accessed 28 March 2022.

3 South Africa is the only African country in the G20, and it must often walk the fine line of speaking for the continent's interests without imposing its voice on its neighbours, cf. SAIIA, 'The G20's Africa Problem' (SAIIA, 3 December 2018) <https://saiia.org.za/research/the-g20s-africa-problem/> accessed 2 May 2020.

4 The BRICS Partnership is a grouping of leading emerging economies, namely Brazil, the Russian Federation, India, China and South Africa, playing a growing role in the world economy.

5 Oliver C Ruppel and Tina Borgmeyer, 'The BRICS partnership from a South African perspective: Sustainable development space in a new global governance' in Muna Ndulo and Steve Kayizzi-Mugerwa (eds) *Financing innovation and sustainable development in Africa* (Cambridge Scholars Publishing 2018) 282-306.

6 Belynda Petrie et al., 'Multi-level climate governance in South Africa. Catalysing finance for local climate action' (OneWorld Sustainable Investments, Sustainable Energy Africa and adelphi 2018) <www.adelphi.de/en/system/files/mediathek/bilder/Multi-level%20climate%20governance%20in%20South%20Africa%20-%20adelphi.pdf> accessed 11 June 2020.

reliant on coal,[7] which is the country's largest economically recoverable energy resource and among its three top mineral export earners.[8]

Although South Africa's economy is the second largest in Africa, 35.3% of the population is unemployed, and approximately half (49.2%) of the adult population live below the upper-bound poverty line. It is the most unequal country in the world in terms of income distribution.[9] In many ways, the legacy of apartheid endures. Previously disadvantaged South Africans hold fewer assets, have fewer skills, earn lower wages and are more likely to be unemployed.[10]

Africa is most vulnerable to climate change,[11] and in South Africa, climate change already poses multiple challenges[12] to economic growth and sustainable development and the various facets of human security.[13] Climate change amplifies existing risks and creates new risks for natural and human systems. While such risks are unevenly distributed and generally greater for disadvantaged people and communities, South Africa – ever since the end of apartheid – has been struggling to find and implement a roadmap to address distributive injustices of the past. In this light, anthropogenic climate change poses a threat to the most vulnerable populations, requiring an effec-

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7 Jan Glazewski, 'Legal and regulatory aspects of carbon capture and storage: A developed and developing country perspective' in Oliver C Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds), *Climate change: International law and global governance Volume I: Legal responses and global responsibility* (Nomos Law Publishers 2013) 933-956, 933.

8 Republic of South Africa, 'National Development Plan 2030. Our future-make it work' (Republic of South Africa 2012) at <https://bit.ly/3iK2ZLY> accessed 28 March 2023, 164.

9 Cf. <https://bit.ly/3LpTuhg> for unemployment rate fourth quarter 2021; <http://www.statssa.gov.za/?p=12075> for poverty-related figures and for figures on income distribution see <https://bit.ly/35mq9oq> and <https://data.oecd.org/inequality/income-inequality.htm>. All sites accessed 30 March 2022.

10 The World Bank, 'Overcoming poverty and inequality in South Africa: An assessment of drivers, constraints and opportunities (March 2018)' at <https://bit.ly/3wK8McC> accessed 28 March 2022.

11 Isabelle Niang et al., 'Africa' in IPCC, *Climate change 2014: Impacts, adaptation, and vulnerability. Part B: Regional aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2014) 1199-1265.

12 Impacts of climate change are the effects on natural and human systems of extreme weather and climate events and of climate change. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate changes or hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system. Impacts are also referred to as consequences and outcomes. The impacts of climate change on geophysical systems, including floods, droughts, and sea level rise, are a subset of impacts called physical impacts; See IPCC, *Climate change 2014: Synthesis report – contribution of working groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* <https://bit.ly/3qIlGDT> accessed 28 March 2022, 5.

13 Oliver C Ruppel, 'Climate change, natural disasters and human security: International law and diplomacy responses from an African perspective' (2012) Zanzibar Yearbook of Law (ZYBL) 3-25.

tive, progressive and well-coordinated response with a view to the country's development goals.[14]

The Sustainable Development Goals (SDGs) were adopted in 2015, the same year as the Paris Agreement, and include urgent action to combat climate change and its impacts. The context of development is critical to implementing and achieving climate goals in South Africa and elsewhere. As highlighted in its National Development Plan (NDP) 2030, South Africa faces a triple development challenge of poverty, inequality and unemployment.[15] SDG 13 commits South Africa to take action against climate change and the effects that greenhouse gas emissions cause.[16] South Africa has embarked on the implementation of all SDGs within the context of existing regional and national strategic plans – such as the African Union's Agenda 2063[17] and NDP 2030.

By adopting the 2030 Agenda, South Africa is committed 'to leave no one behind' in the implementation of the SDGs. This means that the specific vulnerability needs must be addressed for sustained, inclusive and sustainable economic growth and social progress.[18] Yet, South Africa still faces significant challenges in terms of its SDG 13 progress. Overall, South Africa ranks 107th in the implementation of the SDGs, so it is clearly at the back of the pack in terms of progress and lags behind the regional progress average.[19]

While the socio-economic consequences of COVID-19 are still highly uncertain, it is without doubt that South Africa will be more highly indebted than prior to the crisis.[20] Still, the NDP sets out the road map addressing South Africa's priorities for the years to come. Its overarching aim is to eliminate poverty and reduce inequality by 2030 by ensuring, amongst other priorities, a transition to an environmentally sustainable, climate change resilient, low carbon economy and just society. The NDP

14 BusinessTech, 'South Africa has a new Climate Change Bill – here's what you need to know' (11 June 2018) <https://businesstech.co.za/news/energy/250747/south-africa-has-a-new-climate-change-bill-heres-what-you-need-to-know> accessed 28 March 2022.

15 Republic of South Africa, 'South Africa: First Nationally Determined Contribution under the Paris Agreement. Updated September 2021' <https://bit.ly/3wNAs02> accessed 28 March 2022.

16 Katherine Lofts et al., 'Brief on Sustainable Development Goal 13 on taking action on climate change and its impacts: Contributions of international law, policy and governance' (2017) 13 MJSDL-RDDDM 183, 185.

17 Agenda 2063 articulates a Pan-African vision of integration, solidarity and unity on a continental level, but it also calls for coordination and cooperation in mutually beneficial partnerships between regions and continents to enable the realisation of this African vision.

18 Cf. United Nations Department of Economic and Social Affairs, 'Leaving no one behind' (17 August 2018) <https://bit.ly/3LpgQDY> accessed 29 April 2022.

19 Jeffrey Sachs et al., *Sustainable Development Report 2021* (Cambridge University Press 2021) 37.

20 South Africa: First Nationally Determined Contribution under the Paris Agreement. Updated September 2021 (n 15).

identifies climate change as a major factor that will influence the context in which South Africa operates.[21]

> South Africa is both vulnerable to climate change impacts and a major greenhouse gas emitter due to its dependency on coal for energy and the high-emissions mining and industrial sectors. Struggling to overcome the historically rooted challenges of inequality and poverty, the country is highly exposed to the effects of climate change [...].[22]

This demands attention and needs to be addressed through mechanisms that can assist in its regulation. The consecutive sections in this chapter aim to first introduce (certain aspects of) South Africa's climate vulnerability and its legal system before dissecting its legal position in relation to climate change on the national level while also highlighting international law obligations.

2 'Day zero'

South Africa's climate vulnerability was exemplarily underlined by the 2018 occurrence of 'day zero'. Then South Africa's 'Mother City',[23] the city of Cape Town

> declared a disaster area after the worst drought in almost a century, following its driest three consecutive wet seasons in 2015-2017. Cape Town's drought was extreme, with 'day zero' water storage months away, causing severe water rationing to Cape Town's ~3.8 million population.[24]

The term 'day zero' was coined as a result of three successive years of feeble rainfall and the continually increasing demand for water as a result of rapid population growth, expanded agriculture and tourism activities. In January 2018, city authorities announced that a 'day zero' would be expected to occur 'in mid-April when dam levels were expected to drop to 10% and taps in residential areas would be turned off'.[25] Experts had warned on the possibility of this drought[26] and after the an-

21 Republic of South Africa, National Development Plan 2030. Our Future – make it work (n 8) 197.

22 Alina Averchenkova, Kate Elizabeth Gannon and Patrick Curran, 'Governance of climate change policy: A case study of South Africa' (Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science 2019), available at <https://bit.ly/3iFuLZR> accessed 28 March 2022.

23 The city of Cape Town is the second most populated city in South Africa. It is known for being one of the most beautiful cities in the world with a rich and colourful history. Cape Town is often referred to as 'the Mother City' as it is South Africa's oldest city established in 1652.

24 Michael B Richman and Lance M Leslie, 'The 2015-2017 Cape Town drought: Attribution and prediction using machine learning' (2018) 114 Procedia Computer Science 248-257, 248.

25 Pedro M Sousa et al., 'The 'day zero' Cape Town drought and the poleward migration of moisture corridors' (2018) 13(12) Environmental Research Letters 1-11, 1.

nouncement of the possibility of a 'day zero' water restrictions were put in place that meant that residents would be allowed 50 litres of water per day reducing daily consumption by 25% to around 500 million litres per day.[27]

> [The] total collapse of the city's water system resulted in a situation whereby water was no longer perceived as an inert substance that simply flowed through underground pipes. Instead [...] water became a material substance that needed much 'coaxing' and 'pressure' for it to flow smoothly.[28]

What had previously been a distant concept had suddenly become a certainty. The reality of water scarcity had become prevalent,[29] and much more attention was afforded to the vulnerability aspect and linking environmental issues to human security and socio-economic predicaments, which are exacerbated by climate change.[30] The newly established narrative around 'day zero' changed the vulnerability perceptions amongst communities within the city of Cape Town, the Western Cape Province, and South Africa at large.

3 Selected specificities of the South African legal system

The following passages are meant to serve as an introduction for the reader who may not be familiar with South Africa's recent history and especially the legal setup of the country. The list of 'selected specificities' is most obviously neither complete nor does it claim to be comprehensive in any sense.

26 Steven Robins, '"Day zero", hydraulic citizenship and the defence of the commons in Cape Town: A case study of the politics of water and its infrastructures (2017-2018)' (2019) 45(1) Journal of Southern African Studies 5, 6.

27 Sousa et al. (n 25) 1.

28 Robins (n 26) 8.

29 Julian S Yates and Leila M Harris, 'Hybrid regulatory landscapes: The human right to water, variegated neoliberal water governance, and policy transfer in Cape Town, South Africa, and Accra, Ghana' (2018) 110 World Development 75, 82.

30 Oliver C Ruppel and Mark B Funteh 'Climate change, human security and the humanitarian crisis in the Lake Chad Basin region: Selected legal and developmental aspects with a special focus on water governance' in Patricia Kameri-Mbote et al. (eds), *Law | Environment | Africa*. Publication of the 5th Symposium, 4th Scientific Conference, 2018 of the Association of Environmental Law Lecturers from African Universities in cooperation with the Climate Policy and Energy Security Programme for Sub-Saharan Africa of the Konrad-Adenauer-Stiftung and UN Environment (Vol 38, Nomos, Law and Constitution in Africa, 2019) 99-128, 128.

3.1 A 'long walk to freedom'

The progression towards South Africa's current constitutional dispensation was a 'long walk to freedom'.[31] Colonisation, settlement and apartheid were major influences on the multi-faceted nature of South Africa's legal system, and the introduction of the Constitution meant an extensive change to South Africa's previous legal system.

Prior to colonisation in any form, South Africa's people were self-governed by Chiefs and traditional leaders chosen by the people.[32] The year 1652 brought Jan van Riebeeck to the shores of South Africa, where a 'refreshment station for the merchant ships of the Dutch East India Company at the Cape of Good Hope' was established.[33] The Dutch brought with them their own established law that was rooted in Roman law principles.[34] South Africa's 'Roman-Dutch system of law' was then applied in the newly established colony at the Cape, and subsequently developed and applied throughout South Africa (and beyond).[35] Roman-Dutch law was, however, not the sole contributor to the South African legal system.[36] With South Africa's next colonisation by the British in 1806, the Roman-Dutch legal influence did not dissipate but rather mix with that of British law.[37] The South African legal system was henceforth founded on different but complementary legal traditions.[38]

Today, South African law consists of the Constitution, legislation, judicial precedent, the common law (rules developed from Roman-Dutch and British authorities), (African) customary law and international law.[39] Some have even referred to an 'Af-

31 Long Walk to Freedom was also the title of an autobiography written by South African President Nelson Mandela, which he first published in 1994, which is also the year, which brought the formation of a democratic government demarcating the end of apartheid. Apartheid was the Afrikaans name given by the white-ruled South Africa's Nationalist Party in 1948 to the country's institutionalised system of racial segregation.

32 Ignatius M Rautenbach, *Rautenbach-Malherbe constitutional law* (6th edn, LexisNexis Butterworths 2012) 13; Nigel Worden, *The making of modern South Africa conquest, apartheid, democracy* (5th edn, John Wiley & Sons 2012) 9; Gerrit Pienaar, 'The methodology used to interpret customary land tenure' (2012) 15 PELJ 152, 153.

33 Rena van den Bergh, 'The remarkable survival of Roman-Dutch law in nineteenth-century South Africa' (2012) 18(1) Fundamina: A Journal of Legal History 71.

34 Ibid 72.

35 Oliver C Ruppel and Katharina Ruppel-Schlichting, 'The hybridity of law in Namibia and the role of community law in the Southern African Development Community (SADC)' in James AR Nafziger (ed), *Comparative law and anthropolo*gy (Edward Elgar Publishing 2017) 31-71, 31.

36 Harry Rajak, 'A virile living system of law: An exploration of the South African legal system' (2011) 61 Focus, 44; Pienaar (n 32) 153.

37 Max Loubser, 'Linguistic factors into the mix: The South African experience of language and the law' (2003) 78(2) Tulane Law Review 105, 113.

38 Rajak (n 36) 45.

39 Rautenbach (n 32) 19.

ricanisation of Roman-Dutch law in twenty-first century South Africa'.[40] Customary law or indigenous law is the generic term used to denote the laws of the indigenous African communities of South Africa.[41] Sections 30 and 31 of the Constitution grant the right to participate in language[42] and culture of choice, which supports the adoption of various African cultures and traditions within formal legal institutes.[43]

Customary law, which was seen as inferior to common law under colonised structures, was not given equal treatment. The so-called 'repugnancy clause' was implanted in South African law with the Natal Ordinance 5 of 1849, where customary law was only recognised under the condition that it was 'not repugnant to the general principles of humanity recognised throughout the whole civilised world'.[44] It was in many African countries that only after independence, that

> [a]fter generations of missionaries, anthropologists and lawyers, whose first interest was to force African customary law into the procrustean bed of either the bible, civilisation or a western paradigm of rule of law, African customary law begins to breathe again: to breathe the air of Africa.[45]

Today, under the 1996 constitutional dispensation, customary law is on the same hierarchical footing with the common law.[46] In *Alexkor Ltd v Richtersveld Community*,[47] the Constitutional Court stated:

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40 Reinhard Zimmermann and Daniel Visser (eds), *Southern cross: Civil law and common law in South Africa* (Juta & Co, 1996) 15.

41 Rautenbach (n 32) 5.

42 South Africa has 11 official languages, while in the past only English and Afrikaans were official languages used in governmental affairs, which excluded large parts of population who had little or no languages proficiency in those languages. The 1996 Constitution gave official status to all the major languages of South Africa: In terms of Section 6(1) (t)he official languages of the Republic are Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, Afrikaans, English, isiNdebele, isiXhosa and isiZulu. Section 6(2) provides that (r)ecognising the historically diminished use and status of the indigenous languages of our people, the state must take practical and positive measures to elevate the status and advance the use of these languages. Interestingly in Section 6(5) a Pan South African Language Board has been established by national legislation to promote, and create conditions for, the development and use of *inter alia* all official languages and for all languages commonly used by communities in South Africa, including among others German, Greek, Portuguese, Arabic and Hebrew.

43 Thomas W Bennett, 'Conflict of laws' in Jan C Bekker, Johan MT Labushagne and Louis P Vorster (eds), *Introduction to legal pluralism in South Africa* (Butterworth's Publishers 2002) 24.

44 Olaf Zenker, 'Mind the gaps: Renegotiating South African legal pluralism with the post-apartheid state' in Katrin Seidel and Hatem Elliesie (eds), *Normative spaces and legal dynamics in Africa* (Routledge 2020).

45 Werner Menski, 'Flying kites in Africa: Legal pluralism in a plural world' in Oliver C Ruppel and Gerd Winter (eds), *Legal pluralism in Africa and beyond. Liber amicorum Manfred O Hinz in celebration of his 75th birthday; Recht von innen: Rechtspluralismus in Afrika und anderswo. Festschrift Manfred O Hinz anlässlich seines 75. Geburtstages* (Dr. Kovac Law Publishers 2011) 141-157, 143.

46 John A Faris, 'African customary law and common law in South Africa: Reconciling contending legal systems' (2015) 10(2) International Journal of African Renaissance Studies - Multi-, Inter- and Transdisciplinary 171, 175; Christa Rautenbach, 'Deep legal pluralism in South Af-

> While in the past indigenous law was seen through the common law lens, it must now be seen as an integral part of our law. Like all law it depends for its ultimate force and validity on the Constitution. Its validity must now be determined by reference not to common-law, but to the Constitution.

South Africa and other countries in southern Africa[48] are made up of a melting pot of cultures, religions and community practices that make up the complex and all-encompassing nature of the legal system.[49] This system is mirrored by the constitutional inclusion of customary law, Roman-Dutch law and British common law in pluralistic practice.[50] This plurality of laws makes the South African legal system an object of fascination to comparative lawyers as well as to legal ethnologists and sociologists. This plurality, including

> customary law and indigenous knowledge into climate change policies is likely to contribute to the development of more effective adaptation strategies that are cost-effective, participatory and sustainable. After all, indigenous people have always been tasked to develop flexible mechanisms to cope with climatic conditions and their vulnerability.[51]

Section 39(2) of the Constitution regulates that when interpreting any legislation, and when developing the common law or customary law, every court, tribunal or forum must promote the spirit, purport and objects of the Bill of Rights. According to Section 39(3) the Bill of Rights does not deny the existence of any other rights or freedoms that are recognised or conferred by common law, customary law or legislation, to the extent that they are consistent with the Bill.[52] Chapter 12 of the Constitution

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rica: Judicial accommodation of non-state law' (2010) 60 Journal of Legal Pluralism and Unofficial Law 143, 144.

47 *Alexkor Ltd and Another v Richtersveld Community and Others* (CCT19/03) (2003) ZACC 18; 2004 (5) SA 460 (CC); 2003 (12) BCLR 1301 (CC) (14 October 2003) para 51.

48 Oliver C Ruppel and Katharina Ruppel-Schlichting, 'Legal and judicial pluralism in Namibia and beyond: A modern approach to African legal architecture?' (2011) 64 Journal of Legal Pluralism and Unofficial Law 33-63.

49 Hanri du Plessis, 'Legal pluralism, uBuntu and the use of open norms in the South African common law of contract' (2019) 22 PELJ 1, 15.

50 Ibid.

51 Oliver C Ruppel and Ifejika Speranza, 'The international, African and regional institutional, legal and policy framework of climate change' in AMCEN, *Addressing climate change challenges in Africa – a practical guide towards sustainable development* (United Nations Environment Programme 2011) 170-202, 200.

52 'Culture – no doubt – can strengthen and validate human rights perspectives; however, certain customary norms and practices may also be found in violation of the Bill of Rights. Yet, one should not be too hasty, making sweeping judgements of African customary practices from the outside; rather, one should try to see the customs from the viewpoints of the people who practise them'; taken from Oliver C Ruppel 'Introduction' in Oliver C Ruppel (ed), *Women and custom Namibia: Cultural practice versus gender equality?* (Macmillan Education Namibia 2008) 21-25, 23. For concrete examples regarding harmful practice and norms and for further references see Lotta N Ambunda and Willard T Mugadza, 'The protection of children's rights in Namibia: Law and policy' in Oliver C Ruppel (ed), *Children's rights in Namibia*. (Macmillan Education Namibia, 2009) 5-51, 18; Oliver C Ruppel and Lotta N Ambunda, *The Justice sector and the rule of law in Namibia: Framework, selected legal aspects and cases* (Namibia Institute for Democracy and Human Rights and Documentation Centre 2011) 76-99.

deals with the role and recognition of traditional leaders. And as per Section 211(3) of the Constitution, the courts must apply customary law when that law is applicable, subject to the Constitution and any legislation that specifically deals with customary law. This makes good sense, as customary law can play an important role in the sustainable development of natural resources and the protection of biological diversity as it incorporates a broad knowledge of ecosystems relationships.[53] It can also provide a basis for indigenous communities to address issues of poverty and food security in an increasingly global society.[54]

3.2 Constitutionalism and democratisation

South Africa's journey in terms of constitutionalism and democratisation was propelled in 1990 with the unbanning of prohibited political parties and the release or return of anti-apartheid leaders.[55] Today, South Africa's democracy is premised on the supremacy of its Constitution, which became operational after the first democratic elections at the end of apartheid in 1994 and with the implementation of the Interim Constitution of 1993.[56] The Interim Constitution also mandated the Constitutional Court to act as guardian of the post-apartheid constitutional dispensation.[57] Between 1994 and 1996, the Constitutional Assembly concentrated on the drafting of the final Constitution, which was approved in 1996 and took effect as of 1997.[58] South Africa's final 1996 Constitution is recognised globally as an instrument inducing major social change through non-violent processes grounded in law, achieving substantive justice in a new democratic setting, creating a society that is totally different from the past in terms of the relationship between the law, public institutions and the people.[59]

The preamble to the 1996 Constitution records that the people of South Africa recognise the injustices of South Africa's past and adopted the Constitution to heal

53 Manfred O Hinz and Oliver C Ruppel, 'Biodiversity conservation under Namibian environmental law' in Ute Schmiedel and Norbert Jürgens (eds), *Biodiversity in Southern Africa Volume 2: Patterns and processes at regional scale* (Klaus Hess Publishers 2010) 190-194.

54 Ruppel and Speranza (n 51) 200.

55 Rautenbach (n 32) 16.

56 Act 200 of 1993.

57 Kierin O'Malley 'The 1993 Constitution of the Republic of South Africa – The Constitutional Court' (1996) 8(2) Journal of Theoretical Politics 177-191.

58 Previously 'Constitution of the Republic of South Africa, Act 108 of 1996', substituted by Section 1(1) of the Citation of Constitutional Laws, 2005 (Act 5 of 2005); <www.justice.govza/legislation/constitution/SAConstitution-web-eng.pdf> accessed 20 May 2020.

59 Oliver C Ruppel, 'Constitutionalism and constitutional reform: Selected aspects from a regional perspective' in Oliver C Ruppel, Kathrin M Scherr and Alexander D Berndt (eds), *Assessing progress in the implementation of Zimbabwe's new Constitution. National, regional and global perspectives* (Law and Constitution in Africa Vol. 32, Nomos 2017) 51-83, 51.

divisions of the past; to establish a 'society based on democratic values, social justice and fundamental human rights'; and to 'improve the quality of life of all citizens and free the potential of each person'. Sections 1 and 2 of the Constitution provide that the Constitution is the supreme law of the land and that 'law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled'.

The Bill of Rights contained in Chapter 2 of the Constitution enshrines the rights of all people in South Africa and affirms 'the democratic values of human dignity, equality and freedom'. Section 7(2) provides that 'the State must respect, promote, protect and fulfil the rights in the Bill of Rights'. Section 8(1) states that '[the] Bill of Rights applies to all law, and binds the legislature, the executive, the judiciary and all organs of state'. According to Section 8(2), 'a provision of the Bill of Rights binds a natural or a juristic person if, and to the extent that, it is applicable, taking into account the nature of the right and the nature of any duty imposed by the right.' These provisions of the Constitution read together indicate that the Constitution is applicable in all contexts and to all levels of government.

Section 36 of the Constitution provides that the fundamental rights may be limited only in terms of a law of general application, and then only to the extent that the limitation is reasonable and justifiable in an open and democratic society based upon human dignity, equality and freedom. In considering whether a limitation is reasonable and justifiable, the Constitution requires all relevant factors to be considered, including the nature of the right, the importance of the purpose of the limitation, the nature and extent of the limitation, the relation between the limitation and its purpose, and less restrictive means available to achieve the purpose.[60]

Section 167(3)(a) informs that the Constitutional Court is South Africa's highest court on constitutional matters. Its jurisdiction – the scope of its authority to hear cases – is restricted to constitutional matters and issues connected with decisions on constitutional matters. Chapter 8 of the Constitution, entitled 'Courts and Administration of Justice', sets out the structure of South Africa's court system and defines the role of each court.[61]

60 Halton Cheadle, 'Limitation of rights' in Halton Cheadle, Dennis Davies and Nicholas Haysom (eds), *South African constitutional law: The Bill of Rights* (LexisNexis 2005) 30-8(1) to 30-18.

61 According to Section 165 the judicial authority of South Africa is vested in the courts, which are independent and subject only to the Constitution and the law. And Section 166 identifies these courts as the Constitutional Court; the Supreme Court of Appeal; the High Courts; the Magistrates' Courts; and any other court established or recognised by an Act of parliament.

3.3 The rule of precedent

The South African legal system follows the rule of precedent, whereby a court is bound by its own previous decisions or the decision of a higher court. Judicial precedent is established by decisions of court and provides that previous court decisions are seen as authoritative rather than merely persuasive. The structure of courts is therefore important in determining precedent. The Latin maxim *stare decisis et non quieta movere* (henceforth 'stare decisis') means to 'stand by previous decisions' or 'to stand by decisions and not to disturb settled law'. Judicial precedent emerges when new rules or legal principles are established in particular judgements, which does not happen in every case. Often judicial precedent is applied as is from previous judgements where the courts deem appropriate. If, in a given case, there is no precedent sufficiently addressing the issue in question, the court may then take to establish precedent to be used by future courts in similar instances.[62]

In the case of *Camps Bay Ratepayers' and Residents' Association v Harrison*,[63] the Constitutional Court found:

> The doctrine of precedent not only binds lower courts but also binds courts of final jurisdiction to their own decisions. These courts can depart from a previous decision of their own only when satisfied that that decision is clearly wrong. Stare decisis is therefore not simply a matter of respect for courts of higher authority. It is a manifestation of the rule of law itself, which in turn is a founding value of our Constitution. To deviate from this rule is to invite legal chaos.

Moreover, courts are bound by precedent unless the facts of a matter are not materially the same as those in a previous matter or where the decision of the previous court is manifestly incorrect.[64] Therefore, and for greater fairness and legal certainty, courts are bound by their own decisions unless and until they are overruled by a superior court. It is, however, conceivable that circumstances arise that would render it possible for a court to override its own legal opinion.[65]

3.4 Progressive realisation of socio-economic rights

According to Article 2 of the International Covenant on Economic, Social and Cultural Rights (ICESCR)[66] and also in terms of the Constitution, there is a recognition that socio-economic rights have to be realised over time, and the progress towards

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62 Tracy Humby et al. (eds), *Introduction to law and legal skills in South Africa: Jurisprudence* (Oxford University Press 2012) 152.

63 *Camps Bay Ratepayers and Residents Association and Another v Harrison and Another* (CCT 18/10) (2010) ZACC 19; 2011 (2) BCLR 121 (CC); 2011 (4) SA 42 (CC) (4 November 2010) para 28.

64 Humby et al. (n 62) 218.

65 Peter Havenga et al. (eds), *General principles of commercial law* (4th edn, Juta Law 2002) 8ff.

66 Available at < https://bit.ly/3HQeE6Q > accessed 28 March 2022.

full realisation is dependent on the availability of resources.[67] Sections 26, 27 and 29 of the Constitution make specific reference to progressive realisation: According to Section 26(1) '[e]veryone has the right to have access to adequate housing', while Section 26(2) stipulates that '[t]he state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right'. Similarly, Section 27(1) provides that '[e]veryone has the right to have access to health care services, including reproductive health care; sufficient food and water; and social security, including, if they are unable to support themselves and their dependents, appropriate social assistance'. Section 27(2) again proclaims that '[t]he state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights'. And Section 29(1) provides '[e]veryone with the right to a basic education, including adult basic education; and to further education, which the state, through reasonable measures, must make progressively available and accessible'.

In light of these provisions,

> the progressive realisation qualification requires a state to strive towards fulfilment and improvement in the enjoyment of socio-economic rights to the maximum extent possible, even in the face of resource constraints. A state's performance in terms of the progressive realisation would depend on, among other things, both the actual socio-economic rights people enjoy at a given moment as well as the society's capacity of fulfilment.[68]

In order to progressively realise certain rights, finances are not the only determining resource. Policy efforts, socio-economic indicators, livelihood and context of individuals rights and monitoring methods are among others relevant.[69] Though progressive realisation is largely dependent on an increase in resources, it is coupled with the utilisation and development of available resources that allows for progressive realisation.[70]

> Where available resources are demonstrably inadequate, the obligation remains for a state to strive to ensure the widest possible enjoyment of the relevant rights under the prevailing circumstances; and vulnerable members of society must be protected by the adoption of relatively low-cost programmes. The progressive realisation obligation is therefore not completely eliminated due to resource constraints, because resource constraints alone cannot justify inaction.[71]

Within South Africa's current legal structure, citizens who feel aggrieved by the state's failure (or inaction) to realise their socio-economic rights can approach the

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67 Lillian Chenwi, 'Unpacking "progressive realisation", its relation to resources, minimum core and reasonableness, and some methodological considerations for assessing compliance' (2013) 46 De Jure 742, 743.

68 Ibid.

69 Thandiwe Matthews and Daniel McLaren, 'Budget analysis for advancing socio-economic rights' (Studies in Poverty and Inequality Institute 2016) <https://bit.ly/3qIZmdk> accessed 28 March 2022.

70 Limburg Principles on the Implementation of the ICESCR UN doc E/CN4/ 1987/17, Annex, paras 23-24.

71 Chenwi (n 67) 750.

courts for redress.[72] In the case of Government of the Republic of *South Africa v Grootboom and Others*[73] the Constitutional Court reiterated the role of the ICESCR and the obligation to move as expeditiously and effectively as possible toward the goal of the full realisation of such rights.

In the case of *Mazibuko and Others v the City of Johannesburg and Others*,[74] the Constitutional Court highlighted that progressive realisation of rights is based on a scale of reasonableness, namely that the state is required to do everything that is reasonably necessary for citizens to realise their rights.[75] This would mean that in terms of resource availability, the state would be required to utilise whatever resources (both internal resources and external resources) at its disposition in order for citizens to realise their rights.[76] Progressive realisation of rights is therefore not a short term exercise but rather a continuous task in the full realisation of constitutional democracy.

In Minister of *Health and Others v Treatment Action Campaign and Others*,[77] the Constitutional Court acknowledged how the South African government faces enormous strains in achieving rights pertaining to access to education, land, housing, health care, food, water and social security, specifically in relation to the country's past. However, this does not minimise the obligations imposed by the Constitution, ensuring the state takes reasonable legislative and other measures within its available resources to achieve the progressive realisation of each of these rights.

South Africa, also in terms of its international human rights treaty obligations, is obligated to mobilise and allocate the maximum available resources for the progressive realisation of economic, social and cultural rights, as well as the advancement of civil and political rights and the right to development. Addressing climate change in the aforementioned context should complement ongoing efforts to pursue the full realisation of such rights while minimising the negative impacts of climate change for the benefit of the poor and most vulnerable.[78]

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72 Abraham Klaasen 'The quest for socio-economic rights: The rule of law and violent protest in South Africa' (2020) 28 Sustainable Development <https://doi.org/10.1002/sd.2038> accessed 21 March 2020.

73 *Government of the Republic of South Africa and Others v Grootboom and Others* (CCT11/00) (2000) ZACC 19; 2001 (1) SA 46; 2000 (11) BCLR 1169 (4 October 2000).

74 *Mazibuko and Others v City of Johannesburg and Others* (CCT 39/09) (2009) ZACC 28; 2010 (3) BCLR 239 (CC); 2010 (4) SA 1 (CC) (8 October 2009).

75 Sue-Mari Viljoen and Saul P Makama, 'Structural relief – a context sensitive approach' (2018) 34(2) SAJHR 209, 216.

76 Chenwi (n 67) 749.

77 *Minister of Health and Others v Treatment Action Campaign and Others* (CCT8/02) (2002) ZACC 15; 2002 (5) SA 721; 2002 (10) BCLR 1033 (5 July 2002) (4).

78 Cf. submission of the Office of the High Commissioner for Human Rights to the 21 Conference of the Parties to the United Nations Framework Convention on Climate Change, available at <www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> accessed 23 June 2020.

3.5 *Ubuntu*

Ubuntu is an ethical concept relating to the overarching conception of African humanism. The concept essentially encompasses the basic ideals of group solidarity, respect, human dignity, compassion, mutual unity and conformity to basic norms.[79] While it has been recognised as a legal value with distinctive jurisprudential significance, it is not legally enforceable as an independent rule.[80]

Ubuntu relates to various African laws and regulations, such as Article 28 of the African Charter on Human and Peoples' Rights, which imposes an affirmative obligation of mutual respect and tolerance between individuals for the purpose of good relations with other citizens. In this endeavour, the role of culture plays an enormous role, also when shifting the human rights narrative to a morally justified and socially diverse model.[81]

In South Africa, the concept of *Ubuntu* has a fairly long history in the countries' public discourse. Since the 1920s, *Ubuntu* has been used by *Inkatha*[82] as part of its campaign to revive traditional values, and, even before 1993, it had been co-opted into the more general discourses of theology and corporate governance. The word first entered South African law in a 'postamble' to the 1993 Interim Constitution,[83] and the South African Constitutional Court has considered the meaning and content of the concept:

> *Ubuntu* inspires much of South Africa's constitutional compact, which emphasises the communal nature and the idea of humaneness, social justice and fairness. *Ubuntu* envelopes the key values of group solidarity, compassion, respect, human dignity, conformity to basic norms and collective unity.[84]

In this sense, responsiveness and accountability in the traditional African sense must be thought of in terms of a community's best interests, not necessarily individual

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79 B Obinna Okere 'The protection of human rights in Africa and the African Charter on Human and Peoples' Rights: A comparative analysis with the European and American systems' (1984) 6(2) Human Rights Quarterly 141-159, 148.

80 Elsabé Boshoff and Samrawit Getaneh Damtew 'Children's rights to sustainable development under the African human rights framework' in *African human rights law yearbook* (Vol 3, Pretoria University Law Press 2020) 119-141.

81 Sabelo Ndwandwe, 'Rights-recognition theory: An African perspective' in Olga Bialostocka (ed), *Agenda 2063: Culture at the heart of sustainable development* (HSRC Press 2018) 79-92.

82 Inkatha (meaning 'crown' in the isiZulu language) is a cultural organisation established in the 1920s by the Zulu people, which constitute the largest ethnic group in South Africa.

83 Thomas W Bennett, 'Africanising the common law: IMBIZO/leKGOTLA/PITSO and the principle of public participation' in Oliver C Ruppel and Gerd Winter (eds), *Legal pluralism in Africa and beyond. Liber amicorum Manfred O Hinz in celebration of his 75th Birthday; Recht von innen: Rechtspluralismus in Afrika und anderswo. Festschrift Manfred O Hinz anlässlich seines 75. Geburtstages* (Dr. Kovac Law Publishers 2011) 178-192, 178.

84 *Everfresh Market Virginia (Pty) Ltd v Shoprite Checkers* (Pty) Ltd (CCT 105/10) (2011) ZACC 30; 2012 (1) SA 256 (CC); 2012 (3) BCLR 219 (CC) (17 November 2011) para 71.

preferences.[85] In the case of *State v Makwanyane and Another*, Justice Mokgoro described Ubuntu as expressing itself as describing 'the significance of group solidarity on survival issues so central to the survival of communities'.[86]

> Generally, Ubuntu translates as humaneness. In its most fundamental sense, it translates as personhood and morality. Metaphorically, it expresses itself in *umuntu ngumuntu ngabantu*,[87] describing the significance of group solidarity on survival issues so central to the survival of communities. While it envelops the key values of group solidarity, compassion, respect, human dignity, conformity to basic norms and collective unity, in its fundamental sense, it denotes humanity and morality. Its spirit emphasises respect for human dignity, marking a shift from confrontation to conciliation. In South Africa, *Ubuntu* has become a notion with particular resonance in the building of democracy. It is part of our 'rainbow' heritage, though it might have operated and still operates differently in diverse community settings. In the Western cultural heritage, respect and the value for life manifested in the all-embracing concepts of humanity and *menswaardigheid*[88] are also highly priced [...].

It has been argued that *Ubuntu* should be considered as a constitutional value[89], and as a culture it should inform sustainable development in terms of social transformation in the spirit of harmonisation.[90] While climate change poses a global survival issue with overriding priorities to eliminate poverty and eradicate inequality, *Ubuntu*

> respects all nations, peoples, and cultures. It recognises that it is in our national interest to promote and support the positive development of others. Similarly, national security would therefore depend on the centrality of human security as a universal goal, based on the principle of *Batho Pele* (putting people first). In the modern world of globalisation, a constant element is and has to be our common humanity. We therefore champion collaboration, cooperation and building partnerships over conflict. This (reflects the) recognition of our interconnectedness and interdependency, and the infusion of *Ubuntu* into the South African identity.[91]

4 Climate change governance and legislation

As early as 1748, in chapter 16[92] of his work '*De l'Esprit des Lois*' (the spirit of law), Montesquieu analysed the connection between 'climate and law'.[93] His thesis

85 Bennett (n 83) 192.

86 *S v Makwanyane and Another* (CCT3/94) (1995) ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; (1996) 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995) para 307.

87 isiZulu 'a person is a person because of people' or 'I am because other people are'.

88 Afrikaans 'human dignity'.

89 *Dikoko v Mokhatla* (CCT62/05) (2006) ZACC 10; 2006 (6) SA 235 (CC); 2007 (1) BCLR 1 (CC) (3 August 2006).

90 Jacqueline Church, 'Sustainable development and the culture of Ubuntu' (2012) De Jure 511-531, 530.

91 Republic of South Africa, 'Building a better world: The diplomacy of Ubuntu: White Paper on South Africa's Foreign Policy' (13 May 2011) <https://bit.ly/3uC5XaG> accessed 28 March 2022.

92 Chapter 16 'Lois dans le rapport qu'elles ont avec la nature du climat' (on the laws in their relation to the nature of the climate) in Charles de Montesquieu, *De l'Esprit des Loi*s (1st edn, Barrillot et Fils 1748).

can be summarised as follows: Climate is a determinant factor of human life,[94] it has an impact on the human spirit and consequently – among other conditions – on the legal system of a society. Thus, the ideal legislator – according to Montesquieu – must anticipate the conditions of nature in order to develop the society in the best possible way.[95]

Although there has been attention given to the matter of climate change in the South African legal structure, it is 'work in progress'. An effective response to the issue of climate change requires a nationally led and directed holistic effort, which goes beyond what has conventionally been observed as the area of 'environmental' governance to almost every sector of national government, including energy and industry, transport, trade, human settlements and migration, health, agriculture and fisheries, mining and water.[96]

South African governance of climate change can be found in legislation and policy documents that deal, directly or indirectly, with the issue. Compared to the active and developing policy and strategic climate change responses developed by the government to date, the law remains stagnant in addressing climate change,[97] as there is still a lack of fully concerted legislation in South Africa.

4.1 Section 24 of the Constitution

Section 24 calls for the need to safeguard sustainable ecological development and natural resource use in a way that continues to promote socio-economic development.[98] Sections 152(1)(c), 153(a)[99], 184(1)(b)[100] and 195(1)(b)(c)[101] of the Constitution inter alia reiterate the need for sustainable development.

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93 Oliver C Ruppel, 'Climate law and climate science: Joint enabler of a new climate enlightenment?' in Eva Schulev-Steindl, Oliver C Ruppel and Ferdinand Kerschner (eds), *Climate law – current opportunities and challenges: Essays from the official opening of ClimLaw: Graz*. (Series on Legal Perspectives on Global Challenges Vol 6, Eleven International Publishing 2021) 55-71.

94 Reimar Müller, 'Montesquieu über Umwelt und Gesellschaft – die Klimatheorie und ihre Folgen' (2005) 80 Sitzungsberichte der Leibniz-Sozietät 19-32.

95 See Lisa J Piergallini, 'An empirical investigation of Montesquieu's theories on climate' (2016) 10(6) World Academy of Science, Engineering and Technology International Journal of Economics and Management Engineering 2017-2028, 2017.

96 Olivia Rumble, 'Climate change legislative development on the African continent' in Patricia Kameri-Mbote et al. (eds), *Law | Environment | Africa*. Publication of the 5th Symposium, 4th Scientific Conference, 2018 of the Association of Environmental Law Lecturers from African Universities in cooperation with the Climate Policy and Energy Security Programme for Sub-Saharan Africa of the Konrad-Adenauer-Stiftung (Law and Constitution in Africa Vol. 38, Nomos 2019) 33-60, 35.

97 Rumble (n 96) 35.

98 Section 24(b)(iii) of the Constitution.

The protection of the environment is a constitutional prerogative[102] – not only in South Africa. Section 24[103] of the Constitution includes an environmental right into the Bill of Rights, providing that 'everyone has the right to an environment that is not harmful to their health or wellbeing and to have the environment protected through reasonable legislative measures.' Section 24 further provides that the environment should be protected for current and future generations through reasonable legislative measures and additional measures that prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development and use of natural resources, while promoting justifiable economic and social development.

Section 24 reflects both a right and a corresponding responsibility, and although not explicitly mentioned, Section 24 indirectly relates to climate change in that it is harmful to the environment and can lead to harm of citizens through their health and well-being being implicated as a result of climate change. This shows that climate change impacts the right afforded to citizens in Section 24 as it is affecting the ability of the government to afford such a right successfully. Further, climate change is a result of pollution and leads to ecological degradation, suggesting that there is a need for legislation that relates to climate change specifically due to relation to and impact of the right afforded in Section 24. Section 24 requires the South African government to address climate change and its corresponding impacts.[104]

Section 24 is anthropocentric in nature and can be asserted vertically against the state. Whether the environmental right also applies horizontally, i.e., whether it can be invoked in private disputes, is subject to debate. Section 24 not only contains a fundamental right but also enshrines cultural and socio-economic aspects in Section 24(b) of the Constitution. Of particular importance regarding natural resources is

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99 'A municipality must: (a) structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community [...]'.

100 The South African Human Rights Commission must: '(b) promote the protection, development and attainment of human rights [...]'.

101 '(1) Public administration must be governed by the democratic values and principles enshrined in the Constitution, including the following principles: (b) Efficient, economic and effective use of resources must be promoted. (c) Public administration must be development-oriented.'

102 Joseph A Amougou, Patrick M Forghab and Oliver C Ruppel, 'Le cadre juridique du changement climatique au Cameroun' in Oliver C Ruppel and Emmanuel D Kam Yogo (eds), *Environmental law and policy in Cameroon – towards making Africa the tree of life* (Law and Constitution in Africa Vol. 37, Nomos 2018) 713-730, 713.

103 'Everyone has the right –
(a) to an environment that is not harmful to their health or well-being; and
(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that-
(i) prevent pollution and ecological degradation;
(ii) promote conservation; and
(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.'

104 Michael Kidd, *Environmental law* (2nd edn, Juta & Co 2011) 324.

Section 24(b)(iii), according to which measures need to be taken to prevent pollution and ecological degradation; to promote conservation; and to secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.[105] Such measures include legislative measures in the form of statutory law, but also other measures implemented by the executive branch, such as policies and programmes – which shall briefly be introduced below.

4.2 The National Environmental Management Act[106]

The National Environmental Management Act (NEMA) can be considered the framework for environmental legislation and was created to give effect to the right afforded by Section 24 of the Constitution. As such, NEMA is the backbone of South African environmental law. While the Constitution itself is silent on what the term 'environment' entails, Section 1 of NEMA defines the environment as

> the surroundings within which humans exist and that are made up of: (i) the land, water and atmosphere of the earth; (ii) micro-organisms, plant and animal life; (iii) any part or combination of (i) and (ii) and the inter-relationships among and between them; and (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

The purpose of NEMA is to provide for co-operative environmental governance through the establishment of principles from which decision-making on environmental matters can be based, to provide institutions that will promote co-operative governance and procedures for coordinating environmental functions that are to be exercised by the organs of state, as well as to provide for certain aspects of the administration and enforcement of other environmental management laws and matters connected with such.[107]

NEMA contains a number of principles in Section 2 that are to be applied through South Africa to the actions of all organs of state that may have a significant effect on the environment. These principles shall apply alongside all other appropriate and relevant considerations, including the State's responsibility to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution and, in particular, the basic needs of categories of persons disadvantaged by unfair discrimination; serve as the general framework within which environmental management and implementation plans must be formulated: serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the envi-

105 *BP Southern Africa (Pty) Limited v MEC for Agriculture, Conservation, Environment and Land Affairs* (03/16337) (2004) ZAGPHC 18 (31 March 2004).
106 Act 107 of 1998.
107 Kidd (n 104) 36.

ronment; serve as principles by reference to which a conciliator appointed under this Act must make recommendations; and guide the interpretation, administration and implementation of this Act, and any other law concerned with the protection or management of the environment.

According to Section 2(2) NEMA 'environmental management must place people and their needs at the forefront of its concern and serve their physical, psychological, developmental, cultural and social interests equitably'. Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option. Section 2(3) NEMA stipulates that development must be socially, environmentally and economically sustainable. According to Section 2(4), environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons. Equitable access to environmental resources, benefits and services to meet basic human needs and human well-being must be pursued, and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination. The social. economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment. Global and international responsibilities relating to the environment must be discharged in the national interest.

According to Section 2(4)(o) NEMA, the environment is held in public trust for the people, meaning that the beneficial use of environmental resources must serve the public interest, and the environment must be protected as the people's common heritage. With this adoption of the 'public trust doctrine', 'the state has had conferred upon it the obligation to act as either trustee or custodian of the environment or a specific natural resource, whilst the environment or that particular natural resource has been bequeathed to the people of South Africa.'[108] Therefore, the state is the custodian of natural resources on behalf of the people, which should foster a notion of entitlement amongst the South African population. The doctrine also gives effect to the internationally accepted right of the state to exercise sovereignty over natural resources.[109]

South Africa's environmental impact assessment (EIA) regime is regulated in Chapter 5 of NEMA (on Integrated Environmental Management) and therein governed by Sections 23 to 24 NEMA and – of most practical relevance – the Environ-

108 Elmarie van der Schyff, 'Unpacking the public trust doctrine: A journey into foreign territory' (2010) 13(5) PELJ 122-159, 122.

109 *Xstrata South Africa (Pty) Ltd and Others v SFF Association* (326/2011) (2012) ZASCA 20; 2012 (5) SA 60 (SCA) (23 March 2012).

mental Impact Assessment Regulations. The EIA is South Africa's key regulatory instrument to mitigate and/or manage the impacts of new developments and activities that are considered to potentially impact the right to an environment that is not harmful to health and well-being. In 2014, the One Environmental System (OES) was introduced, which brought mining-related environmental impacts under the NEMA legislative framework. This is most relevant for mining-related applications for environmental authorisation, such as prospecting, exploration, extraction and primary processing of a mineral or petroleum resource or any activities directly related thereto.[110] The Environmental Impact Assessment Regulations and listing notices 1, 2 and 3 were published in 2014.[111]

Further, due to NEMA being the framework to enforce Section 24 of the Constitution, it also has a link to climate change. NEMA can be found to indirectly assist in the control and regulation of climate change in South Africa, although it does not expressly refer to climate change. Further practical implications of NEMA shall be discussed in more detail below.

4.3 The National Environmental Management: Air Quality Act[112]

The National Environmental Management: Air Quality Act (NEMAQA) contains no direct reference to climate change. However, it addresses greenhouse gas emissions and provides that an atmospheric emission license must contain greenhouse gas emission measurement and reporting requirements, which could assist in holding large contributors liable and monitor the volume of emissions that South Africa submit into the atmosphere. The Act intends to reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.[113]

The Act deals with so-called priority air pollutants. Greenhouse gas emissions are considered such priority air pollutants, which have to be specifically regulated by means of pollution prevention plans, particularly relevant to climate change.[114] The

110 Cf. Department for Environmental Affairs, '20 Years of Environment Impact Assessment in South Africa' <www.dffe.govza/sites/default/files/docs/publications/EIAbooklet.pdf> accessed 19 December 2021.
111 GN 982, Government Gazette 38282, 4 December 2014.
112 Act 39 of 2004.
113 Cf. <https://bit.ly/3NsN4iZ> accessed 28 March 2022.
114 Kidd (n 104) 324.

responsible authority published a list of 10 categories, which it has identified as possible threats to air quality. Anyone who undertakes to perform one of these activities will be required to obtain an atmospheric emissions licence (AEL) under Section 22 of the Act.

4.4 The Electricity Regulation Act[115]

The Electricity Regulation Act is also relevant as it led to the promulgation of regulations that require the periodic production of integrated resource plans that can be seen to relate to climate change. The Act lays out objectives, which include the achievement of efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure. This achievement shall assist in restraining of climate change due to the electricity sector being a major contributor to climate change. However, the Act does not expressly refer to climate change. Yet, it is important to note that climate change and energy are inherently linked, as energy is central to the development of modern society,[116] while the production and consumption of energy accounts for large emissions of carbon dioxide.[117]

4.5 The Carbon Tax Act[118]

The Carbon Tax Act is a relatively new addition to South Africa's legislative record.[119] This Act aims to provide for the imposition of a tax on the carbon dioxide equivalent of greenhouse gas emissions, which could have a positive result in relation to the control of climate change in that it may deter the use of materials that contribute to large volumes of greenhouse gas emissions. As a result of greenhouse gas emissions being one of the prevalent contributors to climate change, any method that may lead to the decrease of such emissions will benefit the undertaking of regulating and decreasing climate change and its effects.

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115 Act 4 of 2006.

116 Morakinyo A Ayoade, 'Bridging the gap between climate change and energy policy options: What next for Nigeria?' in Patricia Kameri-Mbote et al. (eds), *Law | Environment | Africa*. Publication of the 5th Symposium, 4th Scientific Conference, 2018 of the Association of Environmental Law Lecturers from African Universities in cooperation with the Climate Policy and Energy Security Programme for Sub-Saharan Africa of the Konrad-Adenauer-Stiftung (Law and Constitution in Africa Vol. 38, Nomos 2019) 83-103, 84.

117 Ibid.

118 Act 15 of 2019.

119 Peggy Schoeman, 'South Africa's climate change legal regime' (2019) 19(9) Without Prejudice 11.

The Act is intended to be implemented in phases, with the first phase designed to be revenue neutral.[120] The tax is a tax on fossil fuel inputs. Entities which conduct listed activities that emit greenhouse gas emissions above a prescribed threshold (also in the schedule) are tax liable. The intention was to introduce the tax at a relatively low rate and increase it incrementally over time to reduce its impact on the economy whilst simultaneously giving certainty to the industry with time to adjust. Liable entities can reduce their tax liability by making use of various allowances available.

> Unfortunately, notwithstanding much deliberation between the Department and National Treasury, there is still no certainty as to how the carbon tax and carbon budgets will be aligned. The former is a fiscal instrument using the market to drive behaviour and prescribing, in advance, the financial value associated with mitigating GHG emissions. In other words, it creates a carbon price of approximately R120/CO2e *ab initio*, taking into account allowances. Carbon budgets, on the other hand, do not establish a carbon price directly but rather use the threat of punitive regulatory sanctions to incentivise behaviour, and the cost of compliance as compared to the quantum of the criminal penalty then creates a parallel financial value for reducing GHG emissions. Although not impossible to implement simultaneously, it is a highly unique regime combining both a regulatory and fiscal instrument to achieve a reduction in the same set of GHG emissions. This design will require careful harmonisation to avoid unwanted or unanticipated macroeconomic and environmental impacts.[121]

4.6 The National Greenhouse Gas Emissions Reporting Regulations[122]

The 2017 National Greenhouse Gas Emissions Reporting Regulations were published under South Africa's air quality management legislation, the National Environmental Management: Air Quality Act 39 of 2004 and shall apply to private sector GHG emitting entities that: (i) fall into the sectors specified in the annexure to the Regulations; and (ii) which have an installed capacity above a prescribed capacity threshold.

The Regulations require these entities to register, monitor and report certain prescribed information regarding their GHG emissions, specifically information regarding process, fugitive and combustion emissions from all GHG emission sources and source streams. In the amended version it lists all activities, as defined in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories' source categories, where data providers must report greenhouse gas emissions and related activity data

> for the Republic of South Africa to meet its international reporting obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and instrument treaties to which it is bound [...].[123]

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120 Revenues are likely to be recycled by way of reducing the current electricity generation levy, credit rebate for the renewable energy premium, and a tax incentive for energy efficiency savings.

121 Rumble (n 96) 48f.

122 GN 275, Government Gazette 40762, 3 April 2017.

123 GN 1136, Government Gazette 42684, 6 November 2019.

4.7 The Disaster Management Act[124]

Disaster risk reduction (DRR) is a central focus of the South African Disaster Management Act. This climate-relevant piece of legislation defines 'disaster management' as a continuous and integrated multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at (a) preventing or reducing the risk of disasters; (b) mitigating the severity or consequences of disasters; (c) emergency preparedness; (d) a rapid and effect response to disasters; and (e) post-disaster recovery and rehabilitation. With this in mind, the Act establishes an elaborate institutional, policy development and strategic planning framework for disaster.

Section 27(2) of the Act empowers the responsible Minister, after a national state of disaster has been declared (which was, for instance, declared on 15 March 2020 due to COVID-19), to make regulations or authorise the issuing of directions to respond to the disaster. The main regulations were proclaimed on 18 March 2020,[125] of which some were challenged in *Reyno Dawid De Beer and Others v the Minister of Cooperative Governance and Traditional Affairs*[126] on the basis of the lack of rationality or constitutionality of the regulations.

The Disaster Management Amendment Act[127] makes explicit reference to communities that are vulnerable to disasters providing for measures to reduce the risk of disaster through adaptation to climate change.

5 Further relevant legal instruments dealing with climate change

The design of climate policy is influenced by how individuals and governments perceive risks and uncertainties and take them into account.[128] There are a number of further relevant policies in South Africa that relate to climate change and to energy.

5.1 The 1998 White Paper on the Energy Policy[129]

The 1998 White Paper on the Energy Policy of the Republic of South Africa focuses on the integration of various energy-related policy processes and as a means to pro-

124 Act 57 of 2002.
125 GN 4307, Government Gazette 43107, 18 March 2020.
126 Unreported decision of Davies, J in the Gauteng Division, High Court of South Africa, Pretoria, (21542/2020) (2020) ZAGPPHC 184 (2 June 2020).
127 Act 16 of 2015.
128 IPCC (n 12) 17.
129 Available at <www.energy.gov.za/files/policies/whitepaper_energypolicy_1998.pdf> accessed 28 March 2022.

vide policy stability. Although it does not specifically deal with the issue of climate change, it takes climate change into account as one of the factors that need to be considered in the development of energy policy. The White Paper seeks to monitor international developments and plan for possible pressure on South Africa to consider its environmental impacts, which will unquestionably increase while committing to a 'no regrets' approach to the energy sector. A 'no regrets' approach essentially means to minimise and decrease environmental impacts. Although climate change is not expressly mentioned, it is an obvious result of actions that negatively impact the environment, which this Paper seeks to minimise. It must be taken into consideration that the White Paper is from 1998, where climate change and climate science were not as prevalent as they are today.[130]

5.2 The 2003 Integrated Energy Plan[131]

The 2003 Integrated Energy Plan was aimed at ensuring that the demand for energy is met with a sufficient supply. This aim has a link to climate change in that the energy sector is a large contributor to greenhouse gases, which influences climate change.

> [T]he purpose of the integrated energy plan or strategy is to balance energy demand with supply resources in concert with safety, health and environmental considerations.

The plan indicates a target for renewable energy and considers its importance. Renewable energy would be a contributor to the decline and minimisation of climate change, as it has less negative impacts on the environment and ultimately climate change. This policy is already outdated as its target was to be met by the year 2012.[132]

5.3 The 2003 White Paper on the Renewable Energy Policy[133]

The 2003 White Paper on the Renewable Energy Policy for the Republic of South Africa is a continuation and follows on from the 1998 White Paper, as it pledged support for renewable energy use. It sets out the government's vision, policy principles, strategic goals and objectives for promoting and implementing renewable energy while also setting a goal to inform the public and international community of the government's goals and how it intends to achieve them. The Paper's ultimate aim was to increase the contribution of renewable energy, resulting in a contribution to

130 Kidd (n 104) 311.
131 Available at <https://bit.ly/3K4zvnA> accessed 3 March 2022.
132 Kidd (n 104) 312.
133 GN 513, Government Gazette 26169, 14 May 2004.

sustainable development and environmental conservation. This was a commendable goal. However, the Paper set a conservative target, which could be seen as 'too restrained' to have a large enough impact or influence. It indicates that

> South Africa is by far the largest emitter of GHGs in Africa and one of the most carbon emission-intensive countries in the world [...] due to the energy-intensive economy and high dependence on coal for primary energy.

5.4 The 2004 National Climate Change Response Strategy[134]

The 2004 National Climate Change Response Strategy for South Africa contains a number of strategies designed to address issues identified as priorities for dealing with climate change. The point of departure recognised in the policy is the achievement of national and sustainable development objectives whilst simultaneously responding to climate change.[135]

The document contains a number of objectives along with mechanisms to meet these objectives. The objectives are predominantly concerned with sustainable development on a national level and with addressing climate change. The objectives are linked to the creation of synergy between national government objectives, sustainability and climate change; they strive for increased interaction and collaboration. Another objective is to enable the relevant national government departments to address climate change issues in South Africa while ensuring that they have the capacity to perform their relevant climate change response functions.

Further objectives aim to offset South Africa's vulnerability to climate change; to create a national greenhouse gas mitigation plan that promotes the process of sustainable development; and to optimise South Africa's potential to benefit from climate change mitigation by suitable international response and positioning. Additionally, the document aims to ensure that government departments co-operate when dealing with climate change; that South African environmental law provides for climate change issues; and to foster improvement in education concerning climate change. At the same time, the document aims to ensure that there is an effective and integrated programme of climate change research, development and demonstration in South Africa. A number of key interventions have been proposed in this document; however, some of them have either been poorly met or not met at all.[136]

134 Available at <https://cer.org.za/wp-content/uploads/2014/05/sem_sup3_south_africa.pdf> accessed 28 March 2022.
135 Kidd (n 104) 313.
136 Ibid 315.

5.5 The 2008 Long Term Mitigation Scenarios

The 2008 Long Term Mitigation Scenarios outline the different scenarios of greenhouse gas mitigation actions by South Africa,[137] inform long-term national policy and provide a solid basis for South Africa's position in multilateral climate negotiations on a post-2012 climate regime. Unmitigated climate change driven by carbon pollution threatens the viability of organised human societies.[138] The document examines a number of interventions that could reduce the 'growth without constraints' level to be closer to the 'required by science' level. The proposed interventions include some that can be implemented immediately and others that may be introduced over time. Some of the interventions are general, like the promotion of energy efficiency, and others are more specific, like the use of 'cleaner coal' and changes to public transport systems. The document also highlights the role of economic instruments in relation to greenhouse gas emissions, including carbon taxes and potential incentives for the use of renewable energy, solar power and the use of biofuels.[139]

5.6 The National Framework for Sustainable Development[140]

The 2008 National Framework for Sustainable Development – People, Planet, Prosperity, seeks to build on existing programmes and strategies that have emerged in South Africa since the inception of democracy. It aims to identify key short, medium and long-term challenges in sustainable development efforts, sets the framework for a common understanding and vision of sustainable development and defines strategic focus areas for intervention. The Framework emphasises the increasing need to collectively implement a national vision for sustainable development through a multitude of actions across all sectors and stakeholders to ensure appropriate protection of resources for generations to come.

The Framework is addressed to all organs of state within the national, provincial and municipal spheres to progressively refine and realign their policies and decision-making systems to establish a coherent and mutually consistent national system. The latter shall be aimed at promoting sustainable development by advancing efficient and effective integrated planning and governance through national, regional and

137 See Energy Research Centre, *Long term mitigation scenarios: Technical summary* (Department of Environment Affairs and Tourism 2007) <https://bit.ly/3LqaST3> accessed 28 March 2020.

138 Philip Landrigan et al., 'Pollution prevention and climate change mitigation: Measuring the health benefits of comprehensive interventions' (2018) 2 The Lancet 515.

139 Kidd (n 104) 316.

140 South African Government, 'People – planet – prosperity: National framework for sustainable development in South Africa' (Department of Environmental Affairs and Tourism 2008) <https://bit.ly/3hBM7WY> accessed 3 March 2022.

global collaboration. In response to evidence presented by the IPCC, the Framework recognises that the impacts of climate change pose a serious risk to the achievement of sustainable development, particularly for poor communities.

5.7 The Integrated Resource Plans for Electricity

The first Integrated Resource Plan for Electricity was released in 2009.[141] This Plan was required by electricity regulations on new generation capacity in terms of the Electricity Regulation Act (4 of 2006). The Plan sets out a number of policy objectives aimed at reducing the level of greenhouse gas emissions released as a result of the electricity sector. These include the use of renewable energy, the implementation of financial incentive schemes that relate to energy efficiency and the installation of solar water heaters. However, the Plan also clarifies that coal will remain the principal energy source, suggesting that renewable energy resources are regarded as peripheral. The second Plan (2010-2030),[142] like the first Plan, and despite setting out objectives regarding the use of renewable energy, still regards those as peripheral to the use of coal.[143]

5.8 The 2010 National Climate Change Response Green Paper[144]

The 2010 National Climate Change Response Green Paper[145] commits South Africa to make a fair contribution to stabilising global greenhouse gas concentrations in the atmosphere and protecting the country and its people from the impacts of the seemingly unavoidable climate change. The Green Paper further presents the government's vision for an effective climate change response and the long-term transition to a climate-resilient and low-carbon economy and society, based on the government's commitment to sustainable development.

The Green Paper sets out a variety of strategies to achieve the climate objectives. They include, *inter alia*, the prioritisation of mitigation and adaption interventions, the mainstreaming of climate change responses in all national, provincial and local planning regimes, the recognition of developed countries' efforts in responding to

141 The System Operations and Planning Division in Eskom has been mandated by the Department of Energy (DoE), under the New Generation Capacity regulations, to produce the integrated resource plan for electricity in consultation with the Department and the National Energy Regulator of South Africa (NERSA). The plan is available at <www.xitizap.com/eskom-2009-irp.pdf> accessed 23 June 2020.

142 GN 400, Government Gazette 34293, 6 May 2011.

143 Kidd (n 104) 317.

144 GN 1083, Government Gazette 33801, 25 November 2010.

145 Available at <https://bit.ly/3sCpmZg> accessed 23 June 2020.

climate change and the recognition that sustainable development is 'climate friendly'. Hence, the more sustainable the country becomes, the easier it will be to build resilience to climate change impacts.

The Green Paper considers policy approaches in sectors of South African society that most require adaptation, like agriculture, water and human health, but also in sectors where mitigation will be most important, like energy, industry and transport. It further acknowledges three additional sectors, i.e., disaster risk management, natural resource sectors and human society, livelihoods and services. For each of these sectors, key challenges or impacts are identified to then set out policy responses in the form of actions. form of actions. This involves increased research, investigation and exploration of the various issues. In addition, there are a number of responses that relate to energy; for example, the Green Paper recommends that a 'climate constraint' be integrated into both the Integrated Energy Plan and the Integrated Energy Plan for Electricity Generation.[146]

5.9 The 2011 National Climate Change Response White Paper[147]

The 2011 National Climate Change Response White Paper was the result of a seven-year process, which had started with the National Climate Change Response Strategy for South Africa, a document published by the Department of Environmental Affairs and Tourism in 2004.[148] The White Paper defines the government's vision for effective climate change response, short-term, medium-term and long-term, and of the transition into a lower-carbon economy and society.[149] Clearly, the structure is very different from the Green Paper.[150]

The White Paper builds on a series of policy statements and strategies, including the National Climate Change Response Strategy of 2004 and the Long-Term Mitigation Scenarios Document of 2007.[151] The White Paper is divided into thirteen chapters and an initial 'Executive Summary', which presents its main contents.[152] The introduction explains the phenomenon of climate change and outlines the South African government's efforts to mitigate and adapt to the projected climate changes, on both a national and international level. The second chapter, 'national climate change

146 Kidd (n 104) 320.
147 Available at <https://bit.ly/35KWEwy> accessed 3 March 2022.
148 Kjersti Fløttum and Øyvind Gjerstad, 'The role of social justice and poverty in South Africa's National Climate Change Response White Paper' (2017) 29 SAJHR 61, 64.
149 Shelley Smith, 'Climate change and South Africa: A critical analysis of the National Climate Change Response White Paper and the push for tangible practices and media-driven initiatives' (2013) 7 Global Media Journal: Africa Addition 47, 48.
150 Fløttum and Gjerstad (n 148) 65.
151 Rumble (n 96) 45.
152 Fløttum and Gjerstad (n 148) 66.

response objective', presents South Africa's dual challenge of adaptation and mitigation. Chapter three presents the nine 'principles' that guide the White Paper's objective, including 'common but differentiated responsibilities and respective capabilities', 'equity', and 'uplifting the poor and vulnerable'. Chapter four outlines the 'national climate change response strategy', describing a decision-making process based on experience, costs and benefits, risks and incentives and disincentives for behavioural change, among a number of other factors.

The emissions scenario from the 2008 Long Term Mitigation Scenarios Policy serves as a benchmark in terms of 'peak, plateau and decline' greenhouse gas emission trajectory. Chapter five discusses a number of adaptation measures for various sectors, including water, agriculture, biodiversity, health, human settlements and disaster risk management. Chapter six presents mitigation efforts, which from the outset underline that the proposed peak-plateau-decline trajectory is not an absolute commitment but depends on the mobilisation of financial resources by developed countries. Chapter seven addresses the issue of potential negative economic impacts of measures, pertaining especially to those relating to mitigation.[153] Chapter eight presents the 'near-term priority flagship programmes' consisting of both new initiatives and the scaling up of existing initiatives, which will be implemented while the first sectoral desired emission reduction outcomes and carbon budgets are being developed and initial adaptation interventions prioritised.[154] These include public works, water conservation and demand management, renewable energy, energy efficiency and energy demand, transport, waste management, carbon capture and sequestration, and lastly adaptation research.[155] Chapters nine and ten discuss job creation and the organisation of public institutions respectively with regard to the projected socio-economic changes.[156] In chapter eleven the mobilisation of resources is outlined, while the measurement and monitoring of climate change and response efforts are contained in chapter twelve.

Lastly, the White Paper summarises the challenges that climate change poses, restating the South African government's commitment to put in place an effective response to climate change. It is clear that the White Paper truly endeavours to deal with climate change through various mechanisms and measures. It highlights that climate change affects all South Africans and that the government will cooperate with business, industry, civil society, academia and students to resolve it.[157] It is in the South African government's hands to ensure that the spirit of the White Paper is

153 Ibid.
154 GN 757, Government Gazette 34695, 3 October 2011.
155 Fløttum and Gjerstad (n 148) 66-67.
156 Ibid.
157 Smith (n 149) 51.

translated into appropriate legislative measures (such as the Climate Change Bill creating a relevant framework law).[158]

5.10 The Draft National Climate Change Adaptation Strategy[159]

The 2019 Draft National Climate Change Adaptation Strategy (NCCAS)[160] incorporates South Africa's NDP and the NDCs and shall function as a National Adaptation Plan to achieve South Africa's obligations under the Paris Agreement. Within the international climate change regime, the NCCAS intends to leverage alignment with South African policies, legislation and other strategic frameworks. The NCCAS outlines 9 strategic interventions with envisaged actions associated with the intervention:

1. Reduce human and economic vulnerability, ensure resilience of physical capital and ecological infrastructure and build adaptive capacity.
2. Develop a risk, early warning, vulnerability and adaptation monitoring system for key climate vulnerable sectors and geographic areas.
3. Develop a vulnerability and resilience methodology framework that integrates biophysical and socio-economic aspects of vulnerability and resilience.
4. Facilitate mainstreaming of adaptation responses into sectoral planning and implementation.
5. Promote research application, technology development, transfer and adoption to support planning and implementation.
6. Build the necessary capacity and awareness for climate change responses.
7. Establish effective governance and legislative processes to integrate climate change in development planning.
8. Enable substantial flows of climate change adaptation finance from various sources.
9. Develop and implement an M&E system that tracks implementation of adaptation actions and their effectiveness.

With regard to intervention number 7, which seems most relevant for this chapter, it shall be highlighted that South Africa's international climate change commitments, the global sustainability movement, and changes experienced in climate have resulted in the implementation of adaptation projects by government and private organisations and communities throughout South Africa. However, despite coordination efforts in different spheres and sectors, there is no clarity in current legislation regard-

158 Rumble (n 96) 45.
159 Draft National Climate Change Adaptation Strategy; GN 644, Government Gazette 42446, 6 May 2019.
160 Text available at <https://bit.ly/3uyVDjV> accessed 28 March 2022.

ing mandates, especially in the government sector. Communication between different sectors is lacking, and organisations are at risk of conducting similar work, using funds that could be better spent. A more integrated approach to climate change with clear roles, responsibilities and mandates and the promotion of partnerships would help to ensure that South Africa meets its climate change adaptation goals timeously and efficiently.

5.11 The Integrated Resource Plan[161]

In 2019, a new Integrated Resource Plan was published for implementation. In its introduction, the Plan sets out that

> South Africa's National Development Plan (NDP) 2030 offers a long-term plan for the country. It defines a desired destination where inequality and unemployment are reduced, and poverty is eliminated so that all South Africans can attain a decent standard of living. Electricity is one of the core elements of a decent standard of living.

While South Africa continues to pursue a diversified energy mix that reduces reliance on a single or a few primary energy sources, the IRP is clear in saying that

> coal will continue to play a significant role in electricity generation in South Africa in the foreseeable future as it is the largest base of the installed generation capacity and it makes up the largest share of energy generated. Due to the design life of the existing coal fleet and the abundance of coal resources, new investments will need to be made in more efficient coal technologies to comply with climate and environmental requirements.

The Plan further reiterates that 'the timing of the transition to a low carbon economy must be in a manner that is socially just and sensitive to the potential impacts on jobs and local economies. Carbon capture and storage, underground coal gasification, and other clean coal technologies are critical considerations that will enable South Africa to continue using our coal resources in an environmentally responsible way into the future.' The Plan acknowledges that 'air quality regulations under the National Environmental Management Act: Air Quality (39 of 2004) provide that coal power plants under Eskom's fleet, amongst others, have to meet the minimum emission standard (MES) by a certain time, or they would be non-compliant and cannot be legally operated'. Yet, in addressing the potential non-compliance with the law, the Plan *inter alia* concludes that a balance will have to be found between energy security and the adverse health impacts of poor air quality.

161 Text available at <http://www.energy.gov.za/IRP/2019/IRP-2019.pdf> accessed 28 March 2022.

5.12 The Low Emission Development Strategy (SA-LEDS)[162]

The Low Emission Development Strategy (SA-LEDS) dated February 2020, was submitted to the UNFCCC during the following months. The strategy reiterates South Africa's commitment to achieving the Paris goals. It also highlights that the implementation of the strategy will contribute directly and indirectly to the meeting of Sustainable Development Goals (SDGs). SA-LEDS sets out a direction towards a low-carbon emission development pathway, meeting commitments to the international community and addressing developmental agenda/priorities and needs. This strategy is supposedly 'a living document, the beginning of South Africa's journey towards ultimately reaching a net-zero carbon economy by 2050':

> The first step will thus be to ensure national targets are aligned with the Paris Agreement. Thereafter, planning teams with analytical and sectoral expertise will engage in detailed scenario work to develop transformation pathways towards achieving the national targets. However, building a scenario is not enough to plan for its delivery. The translation of such a plan to policy is a challenge that all Parties must grapple with over the coming months and years. South Africa aims to inform rollout plans through the use of a dedicated change framework. SA-LEDS will thus be reviewed at least every five years or earlier, should there be significant changes in sectoral or national plans/programmes that can result in big structural changes, growth or decay of the economy, or major global events that impact its content or implementation.

It becomes clear that many policies and plans are in place in South Africa. If, how and when they will eventually and fully translate into a just energy transition remains to be seen. As concrete example, energy fiscal policies (of which fossil fuel subsidies are a subset) in South Africa have already been framed around distributive aims in the post-Apartheid state. While the extent to which fossil fuel subsidies still exist, the South African government, under its G20 commitments, had claimed that it has no inefficient fossil fuel subsidies that encourage wasteful consumption. This notwithstanding, fossil fuels are an important source of government revenue in South Africa, imposing taxes on fossil fuel consumption, production, and incomes, as well as charges for some externalities and fuel-related costs (such as transport). In 2019-2020, the total revenue from fossil fuels was ZAR 100.5 billion (USD 6.95 billion), constituting 2% of the GDP and 7.4% of general revenue. This taxation, however, does by far not match its societal costs (associated with combustion of fossil fuels, air pollution and GHG emissions), which are estimated to be a minimum of ZAR 550 billion (USD 33 billion) per annum.[163]

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162 See <https://bit.ly/3C8rivU> accessed 28 March 2022.

163 Richard Bridle et al., 'South Africa's energy fiscal policies: An inventory of subsidies, taxes, and policies impacting the energy transition' (2022) International Institute for Sustainable Development. Available at <https://www.iisd.org/system/files/2022-01/south-africa-energy-subsidies.pdf> accessed 1 February 2022.

5.13 The Climate Change Bill[164]

The Draft Climate Change Bill was first published for comments[165] in June 2018. It shall provide for the coordinated and integrated response to climate change and its impacts by all spheres of government in accordance with the principles of cooperative governance; for the effective management of inevitable climate change impacts through enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to building social, economic, and environmental resilience and an adequate national adaptation response in the context of the global climate change response; and make a fair contribution to the global effort to stabilise greenhouse gas concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe and in a manner that enables economic, employment, social and environmental development to proceed sustainably.[166]

Since 2018, no further communication was issued from the government concerning the Climate Change Bill until 2021 when the Climate Change Bill of 2021 (B-2021)[167] was introduced in the National Assembly (proposed Section 76 of the Constitution). In its statement on the virtual Special Cabinet Meeting of 14 September 2021, Cabinet approved the submission of the National Climate Change Bill to Parliament. The Bill seeks to provide a legal instrument for the implementation of the National Climate Change Response Policy. It allows for the alignment of policies that will influence the country's climate change response. It also provides the transitional arrangement for the country to move towards a lower carbon and climate-resilient economy. The Bill has already gone through an extensive public consultation process involving relevant stakeholders.[168] The updated Bill is expected to create financial liability for the state in the form of implementation costs relating to the following:[169] Development of climate change response and implementation plans by spheres of Government; Sector Adaptation Strategy and Plan by relevant Ministers and the amendment of existing policies and plans to take sectoral emissions targets into account; development of a National Adaptation Strategy and Plan; human resource capacity for supporting the development and implementation of all plans, strategies and frameworks under the Bill; and human resource capacity for compliance monitoring and enforcement.

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164 GN 580, Government Gazette 41689, 8 June 2018.

165 See <https://bit.ly/3DjmO6b> accessed 28 March 2028.

166 Cf. <https://cer.org.za/wp-content/uploads/2018/05/Draft-Climate-Change-Bill.pdf> accessed 28 March 2022.

167 B-2021 has in the meantime developed further into B9-22 which is available at <https://www.parliament.gov.za/storage/app/media/Bills/2022/B9_2022_Climate_Change_Bill/B9_2022_Climate_Change_Bill.pdf> accessed 28 March 2022.

168 See <https://www.parliament.gov.za/bill/2300773> accessed 28 March 2022.

169 See Climate Change Bill B-2022 (n 167).

Moreover, according to the Climate Change Bill B9-2022,[170] the purpose of the Bill is to craft and implement an effective national climate change response, including mitigation and adaptation actions, that represents the Republic's fair contribution to the global climate change response. The Bill's main objective is to enable the development of an effective climate change response and the long-term just transition to a climate-resilient and lower-carbon economy and society and to provide for matters connected therewith.

Section 1 of the Bill defines certain words, terms and expressions used in the Bill. Section 2 sets out the objectives of the Bill. Section 3 sets out the principles that will guide the interpretation and application of the Bill. Section 4 provides that the Bill is applicable within the borders of the Republic and that it binds all organs of state as defined in Section 239 of the 1996 Constitution. Section 5 renders the Bill a specific environmental management Act, as defined in the National Environmental Management Act 107 of 1998, and requires the Bill to be read, interpreted and applied in conjunction with that Act.[171]

Section 6 regulates conflicts with other legislation. In the event of any conflict between a section of the envisaged Act and other legislation specifically relating to climate change, the section of the envisaged Act prevails. Section 7 places a legal obligation on every organ of state to coordinate and harmonise their various policies, plans, programmes, decisions and decision-making processes relating to climate change to ensure that the risks of climate change impacts and associated vulnerabilities are taken into consideration and to give effect to the principles and objectives set out in the envisaged Act. Section 8 requires the existing Premier Intergovernmental Forums, established in terms of the Intergovernmental Relations Framework Act No 13 of 2005 (IGRFA), to serve as Provincial Forums on Climate Change. A Provincial Forum on Climate Change is charged with coordinating climate change actions in the relevant province and with reporting to the President's Coordinating Council in terms of Section 20(a) of the IGRFA, as well as the Inter-Ministerial Committee on Climate Change. Section 9 provides for all district intergovernmental forums, established in terms of the IGRFA, to serve as Municipal Forums on Climate Change. A Municipal Forum on Climate Change is charged with coordinating climate change actions in the relevant municipality and reports to the relevant Provincial Forum on Climate Change. Section 10 provides for the establishment of the Presidential Climate Change Coordinating Commission for organised labour, civil society and business to advise on the Republic's climate change response.[172]

Section 11 provides the functions of the Presidential Climate Change Coordinating Commission, which includes providing advice on the Republic's climate change

170 Ibid.
171 Ibid.
172 Ibid.

response to ensure an effective climate change response and the long-term just transition to a climate-resilient and low-carbon economy and society. Section 12 governs the appointment of members to the Presidential Climate Change Coordinating Commission. Section 13 provides that the President may require that the Presidential Climate Change Coordinating Commission reports on matters relating to mitigation and adaptation. Section 14 provides for the functions of the Secretariat of the Presidential Climate Change Coordinating Commission. Section 15 requires a MEC responsible for the environment or a mayor of a district or metropolitan municipality to undertake a climate change needs and response assessment within one year of the publication of the National Adaptation Strategy and Plan. It further requires the development of a climate change response implementation plan within two years of undertaking the climate change needs and response assessment. The Section sets out the prescribed content of a climate change needs and response assessment and a climate change response implementation plan. It further requires a climate change response implementation plan to be integrated into the relevant environmental implementation plan of the Province or the relevant integrated development plan of the District or Metropolitan Municipality.[173]

Section 16 provides for the establishment of adaptation objectives in the Republic. The objective is to guide the adaptation response, which is to be accompanied by indicators for measuring progress. The Minister must also determine the date by which the objectives must be incorporated into national planning instruments, policies and programmes. Section 17 requires the Minister to develop adaptation scenarios, which anticipate the likely impacts of climate change in the Republic over the short-, medium- and longer-term. The scenarios must be developed within one year of the envisaged Act coming into operation. It prescribes relevant considerations and the minimum content of the adaptation scenarios. Section 18 provides that the Minister, in consultation with the relevant Ministers responsible for the functions listed in Schedule 2, is required to establish a National Adaptation Strategy and Plan in terms of this Section. The Section sets out the purpose of the National Adaptation Strategy and Plan and its contents. Section 19 provides that within one year of the publication of the National Adaptation Strategy and Plan, a Minister, responsible for a function listed in Schedule 2 to the envisaged Act, must undertake an assessment of its vulnerabilities to climate change and determine measures to respond thereto. The relevant Minister must then develop and implement a Sector Adaptation Strategy and Plan based on the vulnerability assessment. The relevant Minister is also responsible for submitting progress reports on the implementation of the Section Adaptation Strategy and Plan to the Minister. This Section further provides for the periodic review and amendment of the Sector Adaptation Strategy and Plan (if required). Section 20 empowers the Minister to request and obtain data and other information held

173 Ibid.

by any person which is required for the purposes of the National Climate Change Response White Paper. The Minister is also responsible for the compilation and publication of a Synthesis Adaptation Report.[174]

Section 21 empowers the Minister, in consultation with Cabinet, to determine, by notice in the *Gazette*, a national greenhouse gas emissions trajectory for the Republic. Until the Minister publishes a national greenhouse gas emissions trajectory, the trajectory in Schedule 3 to the envisaged Act will serve as an interim national greenhouse gas emissions trajectory for the Republic. The Section provides for the mandatory review of the trajectory every five years and for a review at any other time should the circumstances require. Section 22 empowers the Minister to list the sectors and subsectors subject to the allocation of a sectoral emissions target. After having published such a list, the Minister must determine sectoral emissions targets for the listed sectors and subsectors. The sectoral emissions targets must be aligned with the national greenhouse gas emissions trajectory. The sectoral emissions targets are reviewable every five years from their initial publication. The Section further requires the relevant Ministers to annually report to the Presidency on the progress in achieving the relevant sectoral emissions targets. The Minister must synthesise these reports and submit annual progress reports on the sectoral emissions targets to Cabinet. Section 23 provides that the Minister must publish a list of greenhouse gases, which the Minister reasonably believes cause or are likely to cause or exacerbate climate change. The Minister must further publish a list of activities that emit one or more of the listed greenhouse gases and the Minister reasonably believes cause or are likely to cause or exacerbate climate change. Section 24 requires the Minister to allocate a carbon budget to every person undertaking a listed activity. The Section specifies the minimum requirements to be taken into account when allocating a carbon budget and its prescribed content. A person who has been allocated a carbon budget is required to prepare and submit to the Minister a greenhouse gas mitigation plan. A greenhouse gas mitigation plan must comply with all the requirements set out in this Section and the requirements which the Minister may prescribe. Section 25 requires the Minister to identify synthetic greenhouse gases, which must either be phased out or phased down. This Section empowers the Minister, in consultation with the relevant Ministers and any affected person, to develop a plan for the phase-down or phase-out of the synthetic greenhouse gas. The plan must comply with the requirements set out in the Section and must be reviewed and updated on a five-year basis. The Section also empowers the Minister to allocate carbon budgets to persons who undertake activities, which give rise to the emission of synthetic greenhouse gases.[175]

174 Ibid.
175 Ibid.

Section 26 provides for the development of the National Greenhouse Gas Inventory and the compilation of the National Greenhouse Inventory Report on an annual basis. Section 27 empowers the Minister to develop regulations relating to the implementation of the envisaged Act. Section 28 is concerned with the consultation process that the Minister, the MEC, or a Mayor, must follow when exercising power in terms of the envisaged Act. This consultation must be appropriate for the circumstances and, in the case of the Minister, it includes consultation with all Ministers whose areas of responsibility will be affected by the exercise of the power and the relevant MEC in each province affected by the exercise of the power. In the case of a MEC, it includes consultation with the members of the Executive Council whose areas of responsibility will be affected by the exercise of the power and the Minister and all other national organs of state that will be affected by the exercise of the power. Section 29 sets out the public participation process that the Minister, a MEC or a mayor must follow when exercising the powers listed in the Section. Section 30 empowers the Minister and a MEC to delegate powers vested in terms of the envisaged Act in accordance with the relevant provisions of the NEMA.[176]

Section 31 concerns the right of access to information. It stipulates that information must be provided following the Promotion of Access to Information Act No 2 of 2000 and the Protection of Personal Information Act No 4 of 2013. Section 32 provides for the offences and penalties under the envisaged Act. Section 33 provides that any person may appeal to the Minister against a decision taken by any person acting under a power delegated by the Minister; it further provides that such an appeal must be processed in terms of Section 43 of the NEMA. Section 34 deals with the savings and transitional provisions relating to the Declaration of Greenhouse Gases as Priority Air Pollutants, the National Pollution Prevention Plans Regulations and the National Greenhouse Gas Emissions Reporting Regulations published in terms of the National Environmental Management: Air Quality Act No 39 of 2004. The aforementioned subordinate legislation will remain in force and effect and serve as regulations under the envisaged Act until amended, replaced or repealed. This Section further provides for an amendment to the NEMA in accordance with Schedule 4 to the envisaged Climate Change Act.[177]

Critique about the Bill so far circulated around inadequate emission reduction targets and benchmarks; half-hearted compliance and enforcement mechanisms; and poor provision for access to information and public participation among others.

176 Ibid.
177 Ibid.

6 Climate change in South African courts

In the Constitutional Court case of *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others*,[178] the role of the courts in the context of the environment was addressed:

> The role of the courts is especially important in the context of the protection of the environment and giving effect to the principle of sustainable development. The importance of the protection of the environment cannot be gainsaid. Its protection is vital to the enjoyment of the other rights contained in the Bill of Rights; indeed, it is vital to life itself. It must therefore be protected for the benefit of the present and future generations. The present generation holds the earth in trust for the next generation. This trusteeship position carries with it the responsibility to look after the environment. It is the duty of the court to ensure that this responsibility is carried out.

The aforementioned also applies to climate change, as related litigation continues to expand across jurisdictions to influence policy outcomes and corporate behaviour.[179] Comparable to the international experience,[180] so far, climate change in South African courts mostly involved tactical suits aimed at specific projects or details regarding the implementation of existing climate policies.

6.1 Climate science considerations

The protection of human rights and the role of climate science both play an increasing role in climate change litigation.[181] In light of this development, courts are increasingly confronted with climate science impacting the administration of justice and the decision-making process altogether. South Africa's NDC to the 2015 Paris Agreement explicitly mentions that the national

> response is informed by the findings of the Intergovernmental Panel on Climate Change (IPCC) that warming of the climate system is unequivocal, and the understanding that further mitigation efforts by all are needed to avoid high to very high risk of severe, widespread, and irreversible impacts globally.[182]

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178 *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others* (CCT67/06) (2007) ZACC 13; 2007 (10) BCLR 1059 (CC); 2007 (6) SA 4 (CC) (7 June 2007).

179 Joana Setzer and Rebecca Byrnes, *Global trends in climate change litigation: 2019 snapshot* (Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science 2019).

180 Meredith Wilensky, *Climate change in the courts: An assessment of non-U.S. climate Change litigation* (Sabin Center for Climate Change Law, Columbia Law School, 2015) available at <https://bit.ly/36tmNAM> accessed 28 March 2022.

181 Setzer and Byrnes (n 179) 1.

182 Cf. <https://bit.ly/3NoX9h0> accessed 28 March 2022.

In this regard, the IPCC can serve as an authoritative body to rely on when it comes to quantitative detection and attribution studies to develop impact assessments, which in turn can be used in support of adaption planning. The IPCC provides rigorous and balanced scientific information to decision-makers, and by endorsing the IPCC reports, governments tend to acknowledge the authority of their scientific content. The work of the IPCC is meant to be policy-relevant and yet policy-neutral, never policy-prescriptive.[183]

Interestingly, in *Urgenda Foundation v the Netherlands*,[184] the Dutch Supreme Court relied heavily on IPCC reports to define the percentage reduction in GHG emissions that the government would need to achieve to prevent risks associated with climate change. The 2019 judgement repeatedly references the IPCC, e.g., its Fourth Assessment Report (AR4), Fifth Assessment Report (AR5) and the AR5 Synthesis Report. Under the facts of the case, the court even discusses the role of IPCC reports in obtaining insight into all aspects of climate change through scientific research. In South African courts, IPCC reports may be introduced in the form of expert evidence 'to provide assistance to courts in cases where the court is unable to, because of lack of specialised knowledge'.[185]

In the South African Constitutional Court, pursuant to Rule 31, IPCC reports may arguably be used in the form of 'Brandeis Briefs' detailing the science for the court. A Brandeis Brief[186] is a brief containing information and statistics relevant in addition to arguments of law and fact.[187] Section 31(1)(b) of the Rules of the South African Constitutional Court[188] relates to facts of scientific nature capable of easy verification.

The interplay between climate science and climate law becomes increasingly important when addressing loss and damage, causation and compensation.[189] In these cases, 'science must enlighten the law in revealing the truth to the courts'.[190]

183 Cf. IPCC, 'About the IPCC' <https://archive.ipcc.ch/organization/organization.shtml> accessed 28 March 2022.
184 *Urgenda Foundation v The Netherlands* 19/00135 (Hoge Raad).
185 Izette Knoetze-le Roux, 'Ways to curb expert bias' (2017) 37 De Rebus 5.
186 Louis D Brandeis (1856-1941) first introduced evidence of social and economic factors in his arguments before the US Supreme Court in *Muller v Oregon*, 208 US 412 (1908).
187 Cf. <www.merriam-webster.com/legal/Brandeis%20brief> accessed 11 March 2022.
188 GN 7827, Government Gazette 25726, 31 October 2003.
189 Setzer and Byrnes (n 179).
190 Oliver C Ruppel, 'Climate law and climate science: Joint enabler for a new climate enlightenment?' public lecture at the official occasion of the inception conference of Clim: Law, the Graz Research Center for Climate Law, University of Graz, Austria, 17 June 2020.

6.2 Private law litigation

Most climate litigation cases have been brought against governments, but there is also a rise in lawsuits brought directly against companies. Private law litigation is available to litigants who wish to seek redress for particular climate change losses suffered at the hands of identified corporations or entities. Private law climate change actions, in terms of the laws of delict, are pursued by parties spanning from citizens and corporations to NGOs.[191]

These actions and their nature have also been subject to developments in South African national and provincial legislation and regulations addressing climate change concerns.[192] Be it directly through related climate legislation or indirectly through the common law or non-climate specific legislation, liability for climate-related damages has become a point of consideration to all legal entities.

As a starting point, Section 28 of NEMA imposes a 'duty of care' on anyone who is going to 'cause an adverse impact on the environment'. The said provision demands that such a person must take 'reasonable measures to lessen or avoid such a negative impact on the environment from occurring'.

While this chapter will not deal with criminal law aspects, it should at least be mentioned here that Section 33 of NEMA, with reference to the Criminal Procedure Act,[193] provides for private environmental prosecution in Section 33(1) of NEMA

> [a]ny person may (a) in the public interest; or (b) in the interest of the protection of the environment, institute and conduct a prosecution in respect of any breach or threatened breach of any duty other than a public duty resting on an organ of state, in any national or provincial legislation or municipal bylaw, or any regulation, license, permission or authorisation issued in terms of such legislation, where that duty is concerned with the protection of the environment and the breach of that duty is an offence.

6.2.1 Damages

In South African jurisprudence, private law litigation for damages can be founded on delictual actions under South Africa's law of delict. Delictual actions provide parties with a legal mechanism to seek redress or other relief for losses or harm caused by climate change impacts.[194] The advantage of utilising delictual remedies is the possi-

191 Marie-Ange Baudoin and Gina Ziervogel, 'What role for local organisations in climate change adaptation? Insights from South Africa' (2017) 17(3) Regional Environmental Change 691, 692.

192 Olivia Rumble and Richard Summers, 'Climate change litigation' in Tracy Humby et al. (eds), *Climate change: Law and governance in South Africa* (Juta & Co 2016) 6-1, 6-4.

193 Act 51 of 1977.

194 Rumble and Summers (n 192) 6-18; Jan Glazewski and Debbie Collier, 'South Africa' in Jutta Brunnee et al. (eds), *Climate change liability: Transnational law and practice* (Cambridge University Press 2012) 319, 333.

bility of obtaining compensation for wrongful conduct. However, a disadvantage is high costs in determining the wrongful conduct and liable party. Under South African law, there are three actions that can be raised in terms of delictual claims, namely the Aquilian action (*actio legis aquiliae*) for patrimonial loss; the action for pain and suffering for compensation for actual pain and suffering from the conduct; and the *actio iniuriarum* for harm to personality interests.[195] To better understand the use of delictual claims in climate change liability it is best to look at the Aquilian action for patrimonial loss, where climate-related damages can be measurable in monetary terms. The primary object of an award for damages is to compensate the person who has suffered harm.[196]

The purpose of pursuing delictual actions is to receive compensation for damages suffered; as such, it is essential to determine the extent and impact of such damages (both non-patrimonial and patrimonial in nature). Patrimonial damages are easier to identify given the strictly financial nature of the damage suffered, making it quantifiable. For example, property damage, in terms of climate change liability, may include coastal land, buildings, structures, infrastructures, and agriculture, which defendants should consider in claims presented and based on the present costs of preventing future harm.[197] This also highlights a general duty by defendants to ensure that future harm, as a result of climate change, is minimal and that they do everything reasonably possible to prevent damages.

Moreover, a person whose fundamental rights have been infringed may claim constitutional damages. Such damages, however, only come into play where no statutory remedies are applicable or adequate common-law damages exist. Although constitutional and delictual damages are not concurrent, a court will most likely not support constitutional damages if these would merely constitute a duplication of general damages.[198]

On a different note, the National Environmental Management Laws Amendment (NEMLA) Bill,[199] which the National Assembly passed in November 2018, revises NEMA. For instance, Section 28 of the NEMLA Bill concerning the duty of care and the remediation of environmental damage was amended to empower municipal managers to issue directives and to allow for a notification and the opportunity to make representations prior to the issuing of a directives.

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195 Cf. Francois du Bois, *Willie's principles of South African law* (9th edn, Juta & Co 2009) 1093ff.

196 Johann Neethling et al., *Law of delict* (7th edn, LexisNexis 2015) 3-17.

197 Amelia Thorpe, 'Tort-based climate change litigation and the political question doctrine' (2008) 24(1) Journal of Land Use and Environmental Law 79-105.

198 *Fose v Minister of Safety and Security* (CCT14/96) (1997) ZACC 6; 1997 (7) BCLR 851; 1997 (3) SA 786 (5 June 1997).

199 2017 (B14D-2017).

6.2.2 Omissions and negligence

The Aquilian action aims is to restore the plaintiff's patrimony and, as far as possible, to place him/her in the position he/she would have occupied had the delict not been committed. To succeed with a delictual claim, a plaintiff must demonstrate defendant's conduct that was negligent (fault) and wrongful, thus causing patrimonial loss.[200] Conduct, in terms of delictual action, can take the form of a positive act (physical activity or statement)[201] or an omission (failure to act).[202] Positive acts are easier to prove than omissions, however, climate change liability will mostly rely on a failure to act or to take reasonable preventive measures, namely to exercise the duty of care.[203]

Liability for omissions in climate change cases requires consideration of a number of factors, namely preceding positive conduct, which has created a source of danger; control of a dangerous object or situation; the existence of a special relationship between the parties; an obligation to act in terms of common law or statute; and obligations which arise out of a particular office.[204]

The weakest standard of culpability is negligence.[205] The 'negligence enquiry', on the one hand, requires looking to the state of mind of the defendant in assessing the conduct against that of a reasonable person in the same situation, thereby determining fault.[206] Negligence arises if a reasonable person 'would have foreseen the reasonable possibility of such conduct injuring another person and causing harm; would have taken reasonable steps to guard against such occurrence; and that the defendant failed to take such steps'.[207] In other words, if the defendant failed to act in a manner that a reasonable person would have in the given situation, then the defendant is at fault. The 'wrongfulness enquiry', on the other hand, looks at the harmful conduct and whether policy and the legal convictions of the community, also from a constitutional point of view, regard it as acceptable. I.e., is it reasonable to impose liability on a defendant for the damages flowing from the specific conduct? Judicial determi-

200 Raheel Ahmed, 'The influence of reasonableness on the element of conduct in delictual or tort liability – comparative conclusions' (2019) 22 PELJ 1, 5.
201 Max Loubser 'Law of delict' in Cornelius G van der Merwe and Jacques E du Plessis (eds), *Introduction to the law of South Africa* (Kluwer Law International 2004) 283.
202 Johannes C van der Walt and Rob Midgley, *Principles of delict* (4th edn, LexisNexis 2016) 92; Max Loubser et al. (eds), *Law of delict in South Africa* (3rd edn, Oxford University Press 2018) 95; Jonathan M Burchell, *Principles of delict* (Juta & Co 1993) 37.
203 Glazewski and Collier (n 194) 333-334.
204 Ibid 336.
205 Eric Posner and Cass R Sunstein, 'Climate change justice' (2008) 96 Georgetown Law Journal 1565, 1598.
206 Loubser et al. (n 201) 98-99; Ahmed (n 199) 13.
207 See the 'negligence enquiry' at *Kruger v Coetzee* 1966 (2) SA 428 (A) 430E-F.

nation in this regard also depends on public and legal policy in accordance with constitutional norms.[208]

In looking at negligence and wrongfulness, the court is required to exercise a balancing enquiry, weighing up the degree of risk created by the defendant's conduct, the gravity of the possible consequences if the risk of harm materialises, the utility of the actor's conduct and the burden of eliminating the risk of harm.[209]

6.2.3 Fault and wrongfulness

As previously stated, fault associated with climate change liability often takes the form of negligence, which is more difficult to prove. When looking at climate liability, an important consideration in terms of fault is the 'foreseeability of harm' and whether the actions taken were 'reasonable in response to the harm' in question. Foreseeability can be an easier element to tackle due to strong arguments and reports providing scientific evidence, explaining the climate change-related harm that is to be expected from, for instance, greenhouse gas-emitting activities. However, determining the reasonableness of conduct in terms of climate change liability is a strenuous task given the scientific considerations of climate change determinations.

In the case of *Kruger v Coetzee*,[210] a clear definition and criteria for negligence were established:

> For the purposes of liability, culpa arises if a diligens paterfamilias [a reasonable person] in the position of the defendant would foresee the reasonable possibility of his conduct injuring another in his person or property and causing him patrimonial loss and would take reasonable steps to guard against such occurrence and the defendant failed to take such steps.

A reasonable person, for the purpose of establishing liability, 'is not an exceptionally gifted, careful or developed person; neither is he underdeveloped, nor someone who recklessly takes chances or who has no prudence'.[211] The reasonable person is the 'normal citizen', who does not necessarily contain expert knowledge.[212]

It is essential under delictual action to provide the unreasonable nature of the defendant's conduct to meet the delictual requirements. South African common law requires unreasonableness to be weighed against usefulness (or social utility) of the defendant's conduct.[213] If a defendant has acted reasonably in providing social utility despite also creating climate change-related harm, such conduct may be seen as appropriate under the given circumstances. In weighing social utility and unreasonable-

208 See with further references Rumble and Summers (n 191) 6-18, 6-21.
209 Ibid 6-22.
210 *Kruger v Co*etzee 1966 (2) SA 428 (A) 430E-F.
211 Neethling, Potgieter and Visser (n 196) 135.
212 Glazewski and Collier (n 194) 338.
213 Rumble and Summers (n 192) 6-24.

ness, courts must consider the cost of abatement, available technologies, available resources and functionality, and time constraints. Reasonableness can be better determined when conduct is compared with established regulations or legislation. In the context of climate change litigation, it is likely that most defendants have some knowledge of the possible negative consequences that may arise from their actions, although they may not have the direct intention to cause harm through global warming.[214]

Liability for harm caused depends greatly on proving that the conduct in question was, in fact, wrongful.[215] Wrongfulness 'concerns whether it would be reasonable to impose liability on a defendant for damages flowing from specific harmful conduct.'[216] It is established based on legal convictions of the community, political, social and economic concerns with imposing liability.[217] This element is particularly essential in deterring hazardous unreasonable conduct by a defendant, especially where climate change concerns are not effectively regulated by statute.

Infringing rights or breach of duty, i.e., a duty of care, can result in the establishment of wrongfulness. However, where no clear duty or right has been breached or infringed, determining wrongfulness may be more difficult to determine.[218] With the adoption of the Constitution and the implementation of relevant legislation, courts may rely on clearer provisions in apportioning wrongfulness in terms of climate change liability.[219]

6.2.4 Causation

The challenging element of climate change liability is establishing the causal link between the harm suffered by the plaintiff and the conduct of the defendant.[220] Under any delictual action, one is required to establish that there was both legal and factual causation. Factual causation refers to the question of whether the conduct of the defendant caused the harm that establishes the claim, which is determined using the *conditio sine qua non-test*.[221] Legal causation speaks to whether there is a sufficiently close link between the conduct and the harm and, based on this, whether it would be reasonable to impose liability.

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214 Glazewski and Collier (n 194) 339.
215 Ibid 335.
216 Rumble and Summers (n 192) 6-26.
217 Johann Neethling, 'The conflation of wrongfulness and negligence: is it always such a bad thing for the law of delict?' (2006) 123 SALJ 204, 210.
218 Richard A Stevens 'The legal nature of the duty of care and skill: Contract or delict?' (2017) 20(1) PELJ 20, 22.
219 Glazewski and Collier (n 194) 335.
220 Rumble and Summers (n 192) 6-26.
221 Glazewski and Collier (n 194) 340.

It is the factual and legal causal link that can be particularly problematic in establishing climate change liability due to insufficient scientific or supporting evidence.[222] Such constraints are maintained by demanding certainty where perhaps only certain degrees of likelihood can be provided in an environment consisting of concurrent causes.[223] It is, however, essential to note that despite these constraints, courts have increasingly shown a willingness to play their part in developing stricter precedent regarding climate change liability.[224]

6.2.5 Director's liability

In terms of director's liability, Section 76(3)(c) of the South African Companies Act No 71 of 2008 imposes a standard of care on directors who can, for instance, be held liable in delict for damages if they fail to observe their duties of care and skill. In addition, Sections 34(7) and 49A (e) and (f) NEMA set out various (director's) environmental offences. These provisions could become relevant, where a director's failure to recognise and take steps to mitigate the company's contribution to climate change results in significant pollution or degradation of the environment, or detrimentally affects the environment. In this context, the director is liable for the harm to the environment, which would also encounter significant difficulties in relation to causation and attribution.[225]

6.2.6 Neighbour law and nuisance claims

While a neighbour law dispute is private, nuisance claims can be public or private, depending how the nuisance was constituted. While a basic underlying principle is related to the Latin maxim *sic utere tuo ut alienum non laedas*, meaning to use one's property as not to injure another's property, the South African law of neighbours consists of a mix of common law, Roman and Roman-Dutch law principles with claims that 'may give rise to an interplay of principles of property law and the law of delict'.[226] Public or private nuisance claims are actions that can be sought within the

222 Rumble and Summers (n 192) 6-27.
223 Petra Minnerop and Friederike Otto, 'Climate change and causation: Joining law and climate science on the basis of formal logic' (2020) 27 Buffalo Journal of Environmental Law.
224 Rumble and Summers (n 192) 6-27.
225 Cf. with further references, Christine Reddell, *Directors' liability and climate risk: South Africa* (Country Paper. Commonwealth Climate and Law Initiative 2018).
226 Glazewski and Collier (n 194) 343.

umbrella of common law claims. Such claims can be aimed at, for instance, stopping greenhouse gas emissions.[227]

According to a number of South African metropolitan and local municipal by-laws,

> public nuisance means a thing, act, occupation, condition or use of property which shall continue for such length of time as to
>
> (a) annoy, injure or endanger the comfort, health, repose or safety of the public;
>
> (b) in any way render the public insecure in life or in the use of the property;
>
> (c) greatly offend the public moral decency;
>
> (d) unlawfully and substantially interfere with; obstruct or render dangerous for passage any street, ally, road, navigable body of water or other public way.[228]

Public nuisance is considered 'an act or omission or state of affairs that impedes, offends, endangers or inconveniences the public at large.[229] It can be suppressed or stopped by an interdict or abatement order.[230] The adverse impacts of climate change on the environment and communities may be sufficient to show damage or inconvenience to health and safety, in both short-term and long-term considerations. There is already established scientific evidence that can support such claims, making it easier to bring forward a public nuisance argument since the elements to prove public nuisance are less than that of a purely delictual claim. A perpetrator's action is unlawful if he/she is found guilty of causing injury, damage or inconvenience to the health and safety of the general public. Moreover, the preparator's action is unlawful if it is found to be in conflict with certain statutory regulations.[231]

6.3 Transnational liability?

In December 2021, the Eastern Cape Division Grahamstown of the High Court of South Africa in Makhanda has ordered Shell to immediately cease its seismic blasting along South Africa's Wild Coast. It further ordered Shell and the Minister of Mineral Resources and Energy to pay the costs of the application for the interim interdict. In the judgement, Judge Gerald Bloem stated that Shell was under a duty to

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227 See Victor B Flatt and Richard O Zerbe, 'Climate change common law nuisance suits: A legal-efficiency analysis' (2019) 49(3) Lewis & Clark Law School Environmental Law Review 683-702.

228 Public Nuisance By-Law Provincial Notice No 55 of 2019; Public Nuisance By-Laws Provincial Notice No 58 of 2016; Public Nuisances By-Law Local Authority Notice of 2010.

229 Alton Samuels, 'Note on the use of public nuisance doctrine in 21st century South African Law' (2015) De Jure 13.

230 Colin Prest, *The law and practice of interdicts* (Juta & Co 1996).

231 Also see Jaap Spier, 'Injunctive relief: Opportunities and challenges' in Jaap Spier and Ulrich Magnus (eds), *Climate change remedies: Injunctive relief and criminal law responses* (Eleven International Publishing 2014) 1-120, 1ff.

meaningfully consult with the communities and individuals who would be impacted by the seismic survey and based on the evidence provided, Shell failed to do so.[232] Interestingly, in January 2021, a Dutch court held Shell responsible for oil spills in Nigeria. In the *Milieudefensie* case,[233] the court had to rule on whether the subsidiary Shell Nigeria was responsible for oil spills in the Niger Delta and whether this also meant that the Dutch parent company Royal Dutch Shell had breached its general duty of care. The court held that Shell Netherlands did not have a general duty of care under Nigerian law to prevent harm to third parties because the common law does not have a specific doctrine of attribution for the liability of parent companies for acts of subsidiaries. However, with respect to the subsidiary Shell Nigeria, the Dutch court upheld the claims – at least in part. In light of this, transnational environmental liability law against multinational companies is gaining momentum in the legal and political discussion on international implementation and compliance with environmental standards as well as transnational claims for damages.

Especially from an African perspective, international standards for national environmental liability laws as well as more effective transnational claims for damages would be desirable. First precedents promise to open the way for future environmental damage claims against multinational corporations. Last but not least, climate-related liability claims against multinational parent companies and their foreign subsidiaries are also conceivable, for example, if their cumulative greenhouse gas emissions are significantly higher than when considered separately.[234] With the increasing impacts of climate change today, the liability risks of tomorrow also increase. To hold those responsible for the effects of climate change is a logical legal consequence, especially for those hit hardest.

232 Cf. Chris Vlavianos and Katherine Robinson, 'Wild Coast seismic operations interdicted' (Green Times, 28 December 2021) <https://thegreentimes.co.za/wild-coast-seismic-operations-interdicted/> accessed 29 December 2021.

233 Cf. Gerechtshof Den Haag, 'Shell Nigeria liable for oil spills in Nigeria' (29 January 2021) <www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Gerechtshoven/Gerechtshof-Den-Haag/Nieuws/Paginas/Shell-Nigeria-liable-for-oil-spills-in-Nigeria.aspx> accessed 29 December 2021.

234 Cf. Oliver C Ruppel 'Internationale Standards für nationale Umwelthaftungsnormen: Eine afrikanische Perspektive' (2021) 5 Afrika Süd-Dossier: Klimakrise im südlichen Afrika 37-39 <www.afrika-sued.org/ausgaben/heft-5-2021/internationale-standards-fuer-nationale-umwelthaftungsnormen-eine-afrikanische-perspektive/> accessed 29 December 2021.

6.4 Public law jurisprudence

6.4.1 The role of public interest climate change litigation

Given South Africa's legal system and the power of precedent, it is important to acknowledge the role that public interest litigation plays in setting a model through which climate change jurisprudence can grow.[235] In South Africa, *actio popularis* is possible. Although public interest litigation is not yet common in the African continental context, Section 38 of the Constitution provides legal standing (*locus standi*) for class action and public interest litigation.[236]

Anyone listed in Section 38 has the right to approach a competent court, alleging that a right in the Bill of Rights has been infringed or threatened, and the court may grant appropriate relief, including a declaration of rights. The persons who may approach a court are –

(a) anyone acting in their own interest;
(b) anyone acting on behalf of another person who cannot act in their own name;
(c) anyone acting as a member of, or in the interest of, a group or class of persons;
(d) anyone acting in the public interest; and
(e) an association acting in the interest of its members.

According to Section 32:

(1) [e]veryone has the right of access to –
(a) any information held by the state; and
(b) any information that is held by another person and that is required for the exercise or protection of any rights.
(2) National legislation must be enacted to give effect to this right and may provide for reasonable measures to alleviate the administrative and financial burden on the state.

And Section 34 regulates that:

[e]veryone has the right to have any dispute that can be resolved by the application of law decided in a fair public hearing before a court or, where appropriate, another independent and impartial tribunal or forum.

Public interest litigation allows interested parties to identify possible gaps and failings in current laws and seek the judiciary's assistance in finding ways to fill those gaps and/or address such failings. Therefore,

[c]limate change litigation continues to reach the courts and the headlines, with non-government organisations, individuals, and subnational governments (cities and states) filing cases. The caselaw reflects the multiple ways in which climate change litigation is influencing

235 Oliver C Ruppel, Georg W Junger and Keeley M Knutton, 'Der Klimawandel in der Governance, Gesetzgebung und Rechtsprechung Südafrikas: Ein Überblick über die jüngsten Entwicklungen' (2020) 5 Zeitschrift für Umweltrecht 274-280.

236 James Rooney, 'Class actions and public interest standing in South Africa: Practical and participatory perspectives' (2017) 33(3) South African Journal on Human Rights 406-428.

> public policy by urging increased action on mitigation of greenhouse gases [and] adaptation to the impacts of climate change [...].[237]

Similarly, Section 32(1)(e) NEMA specifies that entities that are not personally affected can have legal standing if an environmental matter in question constitutes a public interest. This may be done, *inter alia*, in the public interest or in the interest of protecting the environment. This role has found application in several recent challenges to developments, for example, in *Mining and Environmental Justice Community Network of South Africa and Others v Minister of Environmental Affairs and Others*[238] and *Company Secretary, ArcelorMittal South Africa Limited and Another v Vaal Environmental Justice Alliance*.[239]

Moreover, in terms of administrative law, Section 6 of the Promotion of Administrative Justice Act no 3 of 2000 (PAJA) gives effect to the right to review administrative action, which must be lawful, reasonable and procedurally fair as per Section 33 of the Constitution. Such administrative action is supported by Section 31 of NEMA, which provides for access to environmental information and the protection of whistle-blowers.

In terms of the aforementioned provisions, South African courts have a growing role to play in climate change litigation.[240] This includes providing judicial legitimacy; developing relevant legal principles; considering numerous factors that contribute to the state of climate change liability; increasing statutory enactments regulating climate change issues; establishing precedent and enforcing environmental rights protected under Section 24 of the Constitution.

6.4.2 The *Thabametsi* case

On 8 March 2017, the Gauteng High Court handed down a judgment in the case of *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others*[241] (hereinafter *Thabametsi* case).[242] The applicant was the NGO Earthife Africa, while the Minister of Environmental Affairs, the Chief Director of Integrated Environmen-

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237 Setzer and Byrnes (n 179) 2.

238 *Mining and Environmental Justice Community Network of South Africa and Others v Minister of Environmental Affairs and Others* (50779/2017) (2018) ZAGPPHC 807; (2019) 1 All SA 491 (GP) (8 November 2018).

239 *Company Secretary of Arcelormittal South Africa and Another v Vaal Environmental Justice Alliance* (69/2014) (2014) ZASCA 184; 2015 (1) SA 515 (SCA); (2015) 1 All SA 261 (SCA) (26 November 2014).

240 Rumble and Summers (n 192) 6-29.

241 *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others* (65662/16) (2017) ZAGPPHC 58; (2017) 2 All SA 519 (GP) (8 March 2017).

242 This was arguably the first climate litigation case on the African continent; Oliver C Ruppel, Conference presentation at the International Conference on Climate Change, Responsibility and Liability, Faculty of Law, University of Graz, Austria, 8 November 2018.

tal Authorisations Department of Environmental Affairs (DEA), the Director of Appeals and Legal Review Department of Environmental Affairs and the Thabametsi Power Project (Pty) Ltd were the respondents.[243]

In this matter, the court was required to deal with two issues, namely a review of the decision of the Minister of Environmental Affairs relating to the granting of environmental authorisation for the construction of a coal-fired power plant, and the obligation of the Minister to reconsider conducting a climate change impact assessment report for the proposed coal-fired power station.[244]

The proposed construction of a 1200 MW coal-fired power station in the Limpopo Province, expected to be in operation until 2061, was intended to address serious energy challenges that hinder South Africa's socio-economic development. In 2015, the Chief Director of the DEA granted an environmental authorisation to Thabametsi to construct the proposed coal-fired power station in terms of the Environmental Impact Assessments (EIA) Regulations of NEMA, which provides the procedures to be followed in conducting EIAs. As per Section 24 NEMA, all activities listed or specified by the Minister of Environmental Affairs must be granted an environmental authorisation before they are permitted to commence. The construction of a coal-fired power station is one of these listed activities. Therefore, a company that intends to build a new coal-fired power station requires an environmental authorisation, which the Chief Director of the DEA must issue. Section 24(1) of NEMA stipulates that the environmental impact of a listed activity must be considered, investigated, assessed, and reported to the competent authority responsible for deciding on an environmental authorisation. Pursuant to Section 24O(1) of NEMA, the competent authorities are required, when deciding on an application for an environmental authorisation, to take into account all relevant factors, including any pollution, environmental impact or environmental degradation likely to be caused by the approval or rejection of the application.

The applicant argued that the impact of a planned coal-fired power station on climate change is a relevant factor under Section 24O(1) of NEMA. Earthlife explained that climate change will continue to affect water resources, air quality, human health, biodiversity and marine fisheries and that South Africa has an international obligation to reduce GHG emissions as part of a global solution to a global problem. Earthlife argued that, as part of the integrated environmental authorisation process provided for in chapter 5 of NEMA and the requirement in Section 24O(1)(b), the GHG emissions and climate change impact of the project should have been considered by the Chief Director prior to granting the authorisation. Earthlife further argued that Section 24O(1) of NEMA requires as a compulsory prerequisite that a climate impact

243 Jean-Claude N Ashukem, 'Setting the scene for climate change litigation in South Africa' (2017) 13(1) Law, Environment and Development Journal 37-43.

244 Ibid 37.

assessment must be completed and reviewed prior to the granting of an environmental authorisation and, therefore, the environmental authorisation may not have been granted. The DEA brought forward that there is no provision in South Africa's national laws, regulations or policies that states that a climate impact assessment must be carried out before an environmental authorisation can be issued. Also, it stated that there is no such explicit provision as part of South Africa's international legal obligations to reduce GHG emissions, which are broad in scope and do not prescribe specific measures.

The court decided to suspend the grant of the environmental authorisation until a full investigation and consideration of the climate change impacts assessment report of the proposed coal-fired power station had been conducted.[245] The case is a good example for the question of whether the authorities should take account of the climate objectives of the UNFCCC and the 2015 Paris Agreement in their domestic decision-making processes and what relevance they have within the national legal systems. One key question of the case was whether national administrative regulations must be interpreted in such a way that they are consistent with the climate objectives of international law.[246] Given the lack of an explicit provision regulating the necessity of climate change assessment in the South African legal framework, the case seems to have been a major step forward in dealing with climate change in South Africa.[247]

After the High Court remitted the matter back to the Minister, who then decided to confirm the environmental authorisation. In the decision of 30 January 2018, the Minister stated that she had noted that the Thabametsi Power Station will result in significant GHG emissions and will therefore have climate change impacts. However, the Minister also pointed out that, although the environmental and social costs associated with the proposed power plant are high, this is not necessarily a critical deficiency, as the additional energy production capacity will bring benefits to the country. Moreover, the Minister argued that she has carefully considered all relevant factors, including climate change, but came to the result that the environmental authorisation should nevertheless be granted.[248]

On 26 March 2018, Earthlife Africa and Trustees for the Time Being of the Groundwork Trust challenged the Minister's decision, asking the court to set aside the decision as unlawful for failing to consider site-specific climate change impacts associated with the project. On 19 November 2020, the High Court, pursuant to an agreement between applicants and defendants, issued an order setting aside all gov-

245 *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others* 65662/16) (2017) ZAGPPHC 58; (2017) 2 All SA 519 (GP) (8 March 2017) para 41.

246 Anna-Julia Saiger 'Domestic courts and the Paris Agreement's climate goals: The Need for a comparative approach' (2020) 9(1) Transnational Environmental Law 37-54, 49.

247 Ashukem (n 243) 43.

248 Minister of Environmental Affairs, Appeal Decision, Reference LSA 142346.

ernmental authorisations for the coal-fired power plant. The Court also ordered the defendants to pay court costs.[249]

6.4.3 The *Philippi* case

On 17 February 2020, another climate-relevant judgment was handed down by the Western Cape High Court in *Philippi Horticultural Area Food and Farming Campaign and Another v MEC for Local Government, Environmental Affairs and Development Planning: Western Cape and 12 Others* (hereinafter Philippi case).[250]

The case is important, following upon the aforementioned *Thabametsi* decision in which climate change was recognised as a relevant factor to be considered when decision-makers were called upon to approve developments that might detrimentally impact the environment.

The first applicant was a voluntary association formed to protect the farmlands of the Philippi Horticultural Area ('the PHA'). The respondents included, *inter alia*, the Member of the Executive Council for Local Government, Environmental Affairs and Development Planning: Western Cape ('MEC'), the City of Cape Town and the Oakland City Development Company (Pty) Ltd, ('Oakland'), which was the developer.

The applicants sought to review approvals granted to Oakland pursuant to NEMA and the Land Use Planning Ordinance no 15 of 1985 for the development of housing for 15,000 families on approximately 171 hectares of land situated in Philippi, with schools, commercial industrial and other facilities. The Philippi area hosts intensive vegetable production, which relies upon the extraction of water from an aquifer. The applicants contended that the development would detrimentally affect the aquifer and its ability to recharge from rainfall and that the approvals ought not to have been granted.

The court, reviewing and setting aside the approvals and remitting the applications back for reconsideration, held that no proper decision could have been made without consideration of reports to address the impacts of the proposed development on the aquifer in the context of climate change and water scarcity. This decision confirms the South African courts' recognition of climate change (including water scarcity) as a relevant factor to be considered when approving developments.

The application was brought under the Promotion of Administrative Justice Act No 3 of 2000 (PAJA) for the review of the environmental authorisation granted for

249 Cf. <https://bit.ly/3CbnolJ> accessed 3 March 2022.

250 *Philippi Horticultural Area Food & Framing Campaign and Another v MEC for Local Government, Environmental Affairs and Development Planning: Western Cape and Others* (16779/17) (2020) ZAWCHC 8; 2020 (3) SA 486 (WCC) (17 February 2020).

the proposed development and the subsequent refusal of an appeal. PAJA is aimed at establishing the right to legitimate, fair and procedurally just administrative action in terms of Section 33 of the Constitution.[251] The applicants also sought the review of a separate decision by the City of Cape Town's Interim Planning Committee approving the rezoning and sub-division of the land for the development and the refusal of an appeal against that decision to the City's General Appeal Committee.

The land identified by Oakland for the proposed development represented approximately 20% of the PHA, which was reserved for use in horticulture, exploitation of silica and removal of dune sand. The Oakland land itself had not been farmed previously, portions of it having been used in the past for silica extraction and sand mining activities.

The applicants described the area as the 'breadbasket' of Cape Town since 1885. The area has an ideal micro-climate for producing horticultural crops (vegetables, herbs and flowers) and an abundance of aquifer water despite droughts, making the 3 000 hectares of farmlands the most productive and unique urban agricultural hub in the country. It was estimated that 6 000 farm workers were engaged in agricultural pursuits, with 1 500 hectares being intensively farmed, of which emerging farmers had 100 hectares. Nearly 1 000 hectares of the total was owned by developers and property speculators, who left the land fallow and did not farm those areas used for that purpose in the past.

Section 24(a) and (b) of the Constitution recognises the right to an environment that is not harmful to health or wellbeing and to have the environment protected, for the benefit of present and future generations, through measures that secure ecologically sustainable development and use of natural resources. Moreover, NEMA, in its preamble, recognises the dictates of the Constitution and that sustainable development requires the integration of social, economic and environmental factors to ensure that development serves present and future generations. To this end, Section 24 of NEMA provides for the consideration, investigation, assessment and reporting on potential consequences for integrated environmental management.

It was contended that the scoping and environmental impact assessment process was non-compliant with Sections 24(4) and 24O of NEMA, read with the relevant regulations, and that relevant considerations were not taken into account in granting the environmental authorisation. These included the potential impacts of the development on the aquifer/ground water, food security, climate change, land reform, heritage, the no-development alternative, need and desirability, cumulative impacts and gaps in knowledge.[252]

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251 See <www.gov.za/documents/promotion-administrative-justice-act> accessed 28 March 2022.

252 *Philippi Horticultural Area Food & Framing Campaign and Another v MEC for Local Government, Environmental Affairs and Development Planning: Western Cape and Others* (16779/17) (2020) ZAWCHC 8; 2020 (3) SA 486 (WCC) (17 February 2020) para 56.

Section 24(4) of NEMA, relied upon by the applicants, requires that the potential consequences of proposed listed activities be assessed and that any application must, in terms of Section 24(4)(b), include *inter alia* the investigation of the potential consequences on the environment. Section 24O NEMA also relied upon by the applicants, provides the criteria to be taken into account by authorities when considering environmental approvals. These included all relevant factors, which may comprise pollution, environmental impacts or environmental degradation likely to be caused if the application is approved and measures that may be taken to protect the environment.

During the course of the process, Oaklands' predecessor obtained a civil engineering services report that had found that the aquifer was depleted due to excessive extraction from farming and insufficient recharge and considered that the recharge of the aquifer was imperative.[253] This report recommended that provision be made for a stormwater management system that ensured that those parts of the land to be paved over be made permeable, and that provision be made for rechargeable ponds. Concerns were raised by the City of Cape Town regarding possible pollution of the aquifer through run-off of pollutants.

In seeking to have the environmental authorisation granted under NEMA reviewed and set aside by the court, the applicants contended that relevant considerations were not taken into account when granting the environmental approval, including relevant environmental and socio-economic impacts, food security, climate and the impact on the aquifer, given that the site of the proposed development was one of the few remaining primary recharge areas of the aquifer.[254]

The court acknowledged that food security was a relevant consideration but found that this issue had been considered. It then focused on the contention that the environmental authorisation was granted without a specialised aquifer impact assessment or a suitable specialist study being undertaken to assess the impact of the proposed development on the aquifer, its state and recharge requirements.[255] The environmental impact assessment did not address the impact on the aquifer itself, but rather limited its focus to groundwater and the management of stormwater. The court referred to the reports that had been available to the decision-makers, which indicated that groundwater levels showed over-abstraction, compared to measurements 30 years previously, and that there was a risk of climate change reducing the aquifer's ability to recharge.

The court concluded, given that the development was over one of the deepest parts of the aquifer, that the environmental impact of the development on the aquifer was clearly a relevant consideration, which required consideration by the decision-

253 Ibid para 58.
254 Ibid para 80.
255 Ibid para 95.

makers.[256] The court held that, in the absence of such a report, the decision-makers lacked the relevant material regarding the impact of the proposed development on the aquifer, and its impact on climate change and water scarcity. What was required was a more recent assessment of the state of the aquifer and the impact that the proposed development would have on the aquifer given climate change and water scarcity in the area.[257]

The court further held that the absence of the relevant reports limited the ability of the MEC to take into account relevant considerations as it was required to do by Sections 24O(1) and 24(4) of NEMA, and as a consequence, the decision was to be reviewed and set aside. This review was allowed in terms of Section 6(2)(e)(iii) of PAJA, relevant considerations not having been considered in the determination of the appeal in relation to the aquifer, as also under Section 6(2)(f)(ii) of that Act, in that the decision was considered neither to have been rational nor reasonable, given the limitations on the information before the decision-makers.

The court ordered, the decision having been set aside, that the application was to be remitted back to the MEC for consideration so that the MEC could have regard to relevant considerations, being directed to consider reports dealing with the impacts of the development on the aquifer, in the context of climate change and water scarcity; comments on these reports from interested and affected parties; and any additional information that he might require in order to reach a decision.

The applicants also sought a review of the City of Cape Town's approval of the rezoning and sub-division of the land, and the refusal of the appeal against that decision. The applicants complained that the City had failed to take into account relevant considerations, which included the importance of the PHA as an agricultural development zone, the importance of the aquifer, and issues of food security.[258] The court recognised that, in determining rezoning and sub-division applications, the City was required to have regard to Section 36(1) and (2) of the Land Use Planning Ordinance, with regard to the desirability of the development; the preservation of the natural and development environment; and the effect on existing rights.

The court found that, in considering the issue of the aquifer in relation to the preservation of the natural environment and of existing rights, the information before the decision-makers was limited to that of stormwater and aquifer pollution and a discussion in the reports as to whether, in the light of over-extraction, the urban development or further agricultural use of the land would be more beneficial to the aquifer. The Court concluded that Section 36 of the Land Use Planning Ordinance required the decision-makers to take into account all relevant considerations in con-

256 Ibid para 99.
257 Ibid para 102.
258 Ibid para 111.

nection with the preservation of the natural environment. In relation to the aquifer itself, the Court held:

> In relation to the aquifer, an assessment of the impact of development on it, having regard to the rights set out in Section 24 of the Constitution and the provisions of NEMA and its regulations, required consideration of the impact of the rezoning and sub-division sought in relation to the aquifer as a large underground natural resource, its state, future and impact on issues related to water scarcity and climate change.[259]

The court further held that the City, by failing to consider issues in relation to the aquifer, which were matters (for purposes of Section 36 of the Land Use Planning Ordinance) that related to the natural environment and impacted existing rights, had failed to consider relevant matters, and accordingly, Section 36 of the Land Use Planning Ordinance had not been complied with. The court then proceeded to review and set aside the decision of the City,[260] both in terms of both Sections 6(2)(e)(iii) and 6(2)(f)(ii) of PAJA. The matter was remitted back to the City for reconsideration in the context of the preservation of the natural environment, the effect on the application on existing rights, and the aquifer and in the context of climate change and water scarcity in the City.[261] In the order, the court directed the General Appeals Committee to consider the reports dealing with the impacts of the development on the aquifer, in the context of climate change and water scarcity. The court recognised that, when approvals are sought for new developments, climate change is a relevant consideration, both in terms of Section 24O of NEMA and Section 36 of the Land Use Planning Ordinance. The former section, requiring the decision-maker to take into account all relevant factors, leaves scope for the courts to include issues such as climate change.

In the *Philippi* case, the proposed development was not itself an activity that would contribute to climate change, but the court addressed the potential impact of climate change, and consequent water shortage, on the aquifer if the proposed development (with an associated effect on water run-off and absorption) were allowed. In that respect, the *Philippi* case was ground-breaking, insofar as climate change was recognised as a relevant factor, even though the activity did not itself bear upon or contribute to climate change. If this approach is followed, it is to be anticipated that it will be the initiator for a wide range of future legal challenges to developments and activities, both current and proposed, on the basis of climate change.

259 Ibid para 130.
260 Ibid para 134.
261 Ibid para 135.

7 International law obligations

Climate change law intersections can be found at the different levels of international law. The horizontal level entails international law[262] with multilateral agreements on the global, regional and sub-regional level, bilateral (and unilateral) agreements, general principles of law, customary international law, case law, and other instruments such as declarations, agendas among others. These intersections make international climate change law extremely complex and global climate governance not very orchestrated.[263] The international legal climate change regime is a product of international law,[264] which has developed over the past few decades, after the dawn of the United Nations (UN) when rules and norms regulating activities carried on outside the legal boundaries of nations were developed. Numerous international agreements – bilateral, regional or multilateral – have been concluded, and international customary rules, as evidence of a general practice accepted as law, have been established.[265]

South Africa embarked upon a systematic effort to develop a coherent climate change policy and law.[266] In fact, South Africa has often been at the forefront of international efforts to address climate change. Having served two prior terms on the United Nations Security Council (UNSC) South Africa was again elected as a non-permanent member of the UNSC from 2019-2020. This was not only an opportunity for the country to demonstrate its commitment to climate change efforts, international peace and security, the global rules-based order, but also reflect its prioritisation of the African continent.[267] The UNSC and the UNFCCC climate regime have in common that they depend on cooperation with those national and international institutions that can contribute to the prevention of climate risks.[268]

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262 Rosemary Rayfuse and Shirley V Scott, 'Mapping the impact of climate change on international law' in Rosemary Rayfuse and Shirley V Scott (eds), *International law in the era of climate change* (Edward Elgar 2012) 3-25.

263 Oliver C Ruppel, 'Intersections of law and cooperative global climate governance – challenges in the Anthropocene' in Oliver C Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds), *Climate change: International law and global governance Volume I: Legal responses and global responsibility* (Nomos Law Publishers 2013) 29-93.

264 Jan Glazewski and Oliver C Ruppel 'International environmental law: The international and regional dimension', in Jan Glazewski (ed), *Environmental law in South Africa* (LexisNexis South Africa 2021).

265 Ibid.

266 Robert B Kehew et al., 'Formulating and implementing climate change laws and policies in the Philippines, Mexico (Chiapas), and South Africa: A local government perspective' (2013) 18 The International Journal of Justice and Sustainability 723, 731.

267 Priyal Singh and Gustavo de Carvalho 'Looking back, looking forward: South Africa in the UN Security Council' in Africa Report (Institute for Security Studies 2020) 1.

268 Susanne Dröge, 'Addressing the risks of climate change: What role for the UN Security Council?' (2020) 6 SWP Research Paper (German Institute for International and Security Affairs) 1-36, 10.

South Africa signed the UNFCCC in 1993 and ratified it in 1997. The UNFCCC is a treaty in terms of international law and Article 2.1(a) of the Vienna Convention on the Law of Treaties. South Africa acceded to the Kyoto Protocol in 2002 and ratified the Paris Agreement in 2016 respectively. In 2010, South Africa was among the first emerging economies and developing countries to come forward with a voluntary emissions reduction pledge for 2020 under the Copenhagen Accord. The following year, South Africa hosted the 17th Conference of the Parties (COP17), which resulted in the launch of the Durban Platform for Enhanced Action. The 2011 National Climate Change Response White Paper sets out South Africa's international obligations in terms of the UNFCCC and the Kyoto Protocol and acknowledges the need to adapt to the inevitable impacts of climate change while also reducing South Africa's greenhouse gas emissions. The White Paper accepts that 'there will [...] be significant short and long-term social and economic benefits [...] that will result from a transition to a lower-carbon economy and society'.

South Africa's commitments under the UNFCCC generally, and in terms of the Paris Agreement more specifically, are the genesis of and rationale for its domestic legal response.[269] For instance, in its statement on the virtual Special Cabinet Meeting of 14 September 2021, cabinet approved the submission of the country's 4th Biennial Update Report, which provides an update on the country's efforts to mitigate and adapt to climate change to the UNFCCC. The report outlines the policies implemented as well as the measures and actions undertaken by the country to reduce GHG emissions. It also provides an update on the transitioning interventions towards a lower-carbon economy guided by the National Climate Change Response Policy White Paper. South Africa has made a commitment to contribute fairly to the global efforts to stabilise GHG emissions within the country's developmental priorities.[270]

South Africa's NDC is premised on the adoption of a comprehensive, ambitious, fair, effective and binding multilateral rules-based agreement under the UNFCCC at COP21 in Paris.[271] The Paris Agreement entered into force on 4 November 2016 and contains the following cornerstones: As a long-term goal, it envisages to keep global warming well below two degrees and to pursue efforts to limit the temperature increase even further to 1.5 degrees compared to pre-industrial levels. The Agreement aims to avert dangerous climate change by rapidly phasing out greenhouse gas (GHG) emissions by the second half of the century (to achieve 'net zero' emissions) while promoting sustainable development and poverty eradication. The Paris Agreement provides for a system of NDCs, which form the spine of the Paris Agreement. These are voluntary commitments by states to climate change mitigation and adapta-

269 Schoeman (n 119) 10.

270 Cf. Statement on virtual Cabinet Meeting of 14 September 2021 <https://bit.ly/3OE7CFU> accessed 23 December 2021.

271 From South Africa's NDC submission, available at <https://bit.ly/3NoX9h0> accessed 28 March 2022.

tion, defined in a self-determined national process and are subject to review every five years. Financial commitments from developed countries, especially to the least developed countries, which suffer most from climate change, have been laid down just as provisions on loss and damage from climate change, whereas state liability or any form of interstate damages have explicitly been excluded in the agreement.

In 2015, South Africa submitted an intended NDC in the lead-up to the negotiations of the Paris Agreement.[272] In September 2021, South Africa updated and enhanced its NDC under the Paris Agreement, meeting its obligation under Article 4.9 to communicate NDCs every five years. South Africa's second (next) NDC will be communicated in 2025 as specified in UNFCCC decision 1/CP.21. The 2021 NDC update represents a progression within South Africa's first NDC and reflects a high level of ambition, based on science and equity, in light of prevailing national circumstances, meaning that just transition in South Africa will require international cooperation and support.[273] Thus, South Africa emphasises the importance of the provision of multilateral support in the implementation of its updated NDC as provided for in the Paris Agreement to meet both adaptation and mitigation goals.[274]

In its statement on the virtual Special Cabinet Meeting of 14 September 2021, Cabinet approved South Africa's revised NDC climate change mitigation target range for 2030 for submission to the UNFCCC. South Africa has revised its target range for 2025 to 398-510 and for 2030 to 350-420 Metric tons of Carbon Dioxide equivalent (Mt Co2-eq). The revised target range takes into account the latest IPCC reports and is aligned with all stakeholders that contribute towards the country's efforts.[275]

8 Application of international law in the domestic legal order

Regarding the distinction between the monist and dualist approaches regarding the status of international law in a domestic legal order, the South African Constitution makes use of both approaches.[276] In case of the application of international customary

272 See Alina Averchenkova, Kate Elizabeth Gannon and Patrick Curran, *Governance of climate change policy: A case study of South Africa* (Centre for Climate Change Economics and Policy, Grantham Research Institute on Climate Change and tbe Environment 2019) <www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2019/06/GRI_Governance-of-climate-change-policy_SA-case-study_policy-report_40pp.pdf> accessed 2 May 2020.

273 South Africa: First Nationally Determined Contribution under the Paris Agreement. Updated September 2021 (n 15).

274 Ibid.

275 Cf. <www.gov.za/speeches/statement-virtual-cabinet-meeting-14-september-2021-20-sep-2021-0000> accessed 23 December 2021.

276 Gerrit Ferreira, 'Legal comparison, municipal law and public international law: Terminological confusion?' (2013) 46(3) Comparative and International Law Journal of Southern Africa 337-364, 357.

law, Section 232 of the Constitution states that customary international is law in the Republic unless it is inconsistent with the Constitution itself or an Act of Parliament and thus, there is no further implementing statute required for international customary law to become legally binding. In contrast, Section 231(4) of the Constitution determines that an international agreement becomes law in the Republic only when enacted into law by national legislation. For instance, Chapter 6 of NEMA explicit references to international environmental agreements and obligations and their applicability in South Africa.[277]

The Constitution further distinguishes between the obligations of the Republic on an international level that derive from international agreements to which South Africa is a party and their applicability in the domestic legal system.[278] Section 231(2) of the Constitution requires the ratification of an international treaty by both the National Assembly and the National Council of Provinces except for those agreements that can be classified as technical, administrative or executive.[279] The Constitution does not contain any definitions or indications of when these criteria are met. It is, however, important to emphasise that ratification by parliament does not replace the need for implementing legislation to guarantee the international treaty's domestic applicability.[280] Therefore, Section 231(4) of the Constitution provides for the enactment of additional national legislation to transform the international treaty provisions into municipal law unless the particular agreement contains a self-executing provision. The legislature seems to use three different methods to incorporate international agreements into South African national law.[281] Firstly, the provisions of the particular agreement may be embodied in the text of an act. Secondly, the agreement may be included as a schedule to a statute and thus be incorporated by reference. Lastly, the legislation may authorise the executive to bring the agreement into effect as domestic law by publishing it in the Government Gazette. These principles were also mentioned in *Glenister v President of the Republic of South Africa*.[282] Once an interna-

277 Also see Lisa Chamberlain and Tumai Murombo, 'International environmental law in South Africa', in Erika de Wet, Holger Hestermeyer and Rüdiger Wolfrum (eds), *The implementation of international law in Germany and South Africa* (Pretoria University Law Press 2015) 277-307.

278 Section 231(2) and (4) Constitution.

279 Section 231(3) Constitution.

280 Gerrit Ferreira and Anel Ferreira-Snyman, 'The incorporation of public international law into municipal law and regional law against the background of the dichotomy between monism and dualism' (2014) 17(4) PELJ 1470-1496, 1481; Franziska Sucker 'Approval of an international treaty in parliament: How does Section 231(2) "bind the Republic"?' (2014) 5 Constitutional Court Review 417-434, 426.

281 John Dugard, *International law: A South African perspective* (4th edn, Juta & Co 2018) 61.

282 *Glenister v President of the Republic of South Africa and Others* CCT 48/10) (2011) ZACC 6; 2011 (3) SA 347 (CC); 2011 (7) BCLR 651 (CC) (17 March 2011).

tional agreement is incorporated into national legislation, its provisions enjoy the same legal status as the implementing legislation itself.[283]

In the *Thabametsi* case, it was made clear that NEMA must be interpreted consistently with international law, arising from the obligation contained in Section 233 of the Constitution, which enjoined the court to confer an interpretation of legislation consistent with international law. The court, therefore, considered that international agreements to which South Africa was a party,[284] such as the UNFCCC, were relevant to an interpretation of Section 24O(1)(b) of NEMA. Article 3(3) of the UNFCCC requires all states to take precautionary measures to anticipate, prevent or minimise causes of climate change, and Article 4(1) imposes an obligation on all states and parties thereto to take climate change considerations into account in their environmental policies and actions. Article 4(1)(f) of the UNFCCC, referred to in the *Thabametsi* case, requires the parties to take into account policies and actions, for example, through impact assessments to minimise the effects of climate change on the economy, public health and the quality of the environment, projects or measures undertaken by them to mitigate or adapt to climate change.[285]

Lastly, Section 39(1)(b) of the Constitution also provides that international law must be considered when a court interprets the Bill of Rights. Although Section 39 provides that 'international law must be considered' it does not require that international law must be applied.[286]

9 Conclusion

It is encouraging that South Africa's updated 2021 NDC speaks more clearly of decarbonising the energy sector than the 2020 LEDS.[287] Same applies to the 2021 Climate Change Bill that will hopefully become enacted soon. However, true resilience in South Africa must also derive from social and environmental determinants - both reducing persistent inequality. The 2020 SDG Progress Report finds 'continued unevenness of progress' and identifies areas where significant improvement is required. In particular, 'progress was stalled or reversed on the number of people suffering from hunger, the rate of climate change, and increasing inequalities'. This is espe-

283 Ibid para 100.

284 GN 1676, Government Gazette 18539, 19 December 1997, confirming the ratification by South Africa of the United Nations Framework Convention on Climate Change, after approval thereof by Parliament in terms of Section 231(2) of the Constitution.

285 *Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others* (65662/16) (2017) ZAGPPHC 58; (2017) 2 All SA 519 (GP) (8 March 2017) paras 35, 87.

286 Christa Rautenbach, *Introduction to legal pluralism in South Africa* (5th edn, LexisNexis 2018) 75.

287 South Africa: First Nationally Determined Contribution under the Paris Agreement. Updated September 2021 (n 15).

cially true for South Africa having pledged to ensure that 'no one will be left behind', while vulnerable populations continue to struggle for access to clean water, free basic electricity and a clean and healthy environment.

The SDGs dovetail with the South African concept of *Ubuntu* with its special focus on humaneness and the community. However, while South Africa has made considerable strides toward improving the wellbeing of its citizens since its transition to democracy in the mid-1990s, its progress is slowing. According to the World Bank, South Africa is the most unequal country in the world with regard to income and faces severe challenges in alleviating poverty, striving for equality and providing employment for its people.[288] As such, one needs to be reminded that regression by governments from agreed norms, such those in the SDGs, can be limited or reversed by focused judicial decisions.[289]

Fostering human rights, eliminating poverty and eradicating inequality requires creating decent employment, which in turn requires sustainable economic development, improving basic education, health and social welfare and many other basic needs such as access to food, water, shelter and modern energy services.[290] At the heart of such transition lies the concept of progressive realisation. Moreover, a gradual transformation of the future energy mix should be designed to increasingly replace coal-fired power plants with clean and high-efficiency technology going forward. In doing so, South Africa must take steps that will result in the demise of the fossil fuel economy and its replacement with a clean energy economy that would be both more efficient and better for its people. South Africa is not Germany,[291] that is true. Yet, climate policy is not just domestic policy: it is foreign policy. While domestic policy goals often conflict with foreign policy objectives, this should not be the case with climate change and the only way to save the planet.[292] Moreover, while greenhouse gases alone don't tell the full climate apartheid story,[293] climate change can also become a driver of conflict as it exacerbates other existing drivers of conflict

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288 Cf. The World Bank, 'The World Bank in South Africa' <https://bit.ly/3DqAQDa> accessed 28 March 2022.

289 Quoted from Nicholas A Robinson, 'Road to Stockholm+50 (2022) and beyond, depleting time itself: The plight of today's "human" environment' (2021) 51 Environmental Policy and Law 361-369, 367.

290 Michael Addaney, Elsabe Boshoff and Bamisaye Olutola, 'The climate change and human rights nexus in Africa' (2017) 9(3) Amsterdam Law Forum 5-28.

291 'SA isn't Germany.' Mantashe says SA can't ditch fossil fuels, as govt looks to gas from Moz, available at <www.news24.com/fin24/economy/south-africa/sa-is-not-germany-mantashe-says-sa-cant-ditch-fossil-fuels-as-govt-looks-to-gas-from-moz-20210709/> accessed 23 September 2021.

292 Robert O Keohane and Jeff D Colgan, 'Save the environment, save American democracy: How a pro-climate vision can strengthen America's social fabric' (Foreign Affairs, 20 September 2021) <https://www.foreignaffairs.com/articles/united-states/2021-09-20/save-environment-save-american-democracy> accessed 3 March 2022.

293 Michelle Garcia, 'The media isn't ready to cover climate apartheid' (The Nation, 17 June 2020) <https://bit.ly/3pBvH5v> accessed 22 June 2020.

and fragility, thereby challenging the stability of societies and, ultimately, threatening peace and security.[294]

'Day zero' has created a new sense of awareness, which is, for example, also reflected in the judgement of the *Philippi* case: South Africa is particularly vulnerable to the impacts of climate change and water scarcity. These impacts can also reduce and suffocate economic growth and exacerbate existing social inequalities.[295] In view of the fact that South Africa is more than 25 years after the end of apartheid, the country is still in many ways divided in terms of income, opportunity and vulnerability. Previously disadvantaged South Africans need particular protection, recognising the injustices of the past. In this regard, South Africa's national response rightfully considers both development needs and climate change imperatives as two sides of the same coin.[296] In the spirit of *Ubuntu*, South Africa must now ensure to leave no one behind in their own country. At the same time, it must create new opportunities for all in the economy.[297]

> A concerted effort to align decarbonisation and climate resilience with overall social and economic development objectives, as well as policies within specific sectors (e.g., energy, transport, water), would help to improve policy coordination across sectors, as well as longer-term planning and continuity.[298]

An aggressive South African move away from coal could demonstrate to other middle-income countries that decarbonisation and economic growth are not mutually exclusive and can, in fact, be self-reinforcing.[299] In this light, the recently founded Just Energy Transition Partnership is encouraging, in an agreement on the side of COP26, the USA, France, Germany, the United Kingdom, the European Union (EU) and South Africa engaged in a decarbonisation model for developing countries. South Africa has agreed to use the US$8.5 billion provided through the agreement to

294 See with further references Adrien Detges et al., *10 insights on climate impacts and peace: A summary of what we know* (Adelphi and Potsdam Institute for Climate Impact Research 2020) 4.

295 United Nations, 'The world faces "climate apartheid" risk, 120 more million in poverty: UN expert' (United Nations Climate and Environment, 25 June 2019) <https://news.un.org/en/story/2019/06/1041261> accessed 22 June 2020.

296 United Nations Development Programme, 'What does it mean to leave no one behind?' (UNDP, 9 August 2018) <https://bit.ly/3FdW2gF> accessed 29 April 2022.

297 Statement by HE President Cyril Ramaphosa of South Africa to the United Nations Secretary-General's Climate Summit, 23 September 2019 <www.dirco.govza/docs/speeches/2019/cram0923.htm> accessed 22 June 2020.

298 Averchenkova et al. (n 22).

299 Cf. Zachary Donnenfeld, 'COP26: A mixed bag for Africa' (Institute for Security Studies, 6 December 2021) <https://issafrica.org/iss-today/cop26-a-mixed-bag-for-africa> accessed 23 December 2021.

move its electricity sector off of coal while simultaneously protecting jobs dependent on the industry.[300]

What still remains open is the question of how South Africa can improve its legal framework conditions to better protect the most vulnerable from those impacts. Because it is the law,

> which lays down rules for admissible conduct in the light of the common good. The limits which a healthy, mature and sovereign society must impose are those related to foresight and security, regulatory norms, timely enforcement, the elimination of corruption, effective responses to undesired side-effects of production processes, and appropriate intervention where potential or uncertain risks are involved.[301]

While there are already numerous positive and proactive regulatory measures in place that deal with the adaptation and mitigation of climate change, it should be noted that South Africa is still in a political process of fully formulating and implementing its climate policy for the future. It should be aimed at reaching the global climate goals and at the same time ensuring a just transition. There is, for instance, an urgent need to remove existing carbon tax exemptions, particularly for coal, and potentially introduce taxation on specific pollutants. The revenue generated by efficient pricing of fossil fuels could be used as targeted support for vulnerable households, while higher fossil fuel taxes fast-track South Africa's energy transition.[302] Unfinished business and ongoing developments should thus be seen against the background of the country's difficult economic starting position and as a step towards more effective regulation.[303]

Lastly, climate-related litigation efforts and the advancement of a comprehensive climate protection law (i.e., the Climate Change Bill) are bound to increase the levels of legal certainty and general awareness while at the same time promoting more climate-resilient development pathways.[304] In this light, the importance of public participation in environmental decision-making processes cannot be overestimated.[305] The *Thabametsi* precedent illustrates the role of South Africa's courts in af-

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300 Cf. European Commission, 'France, Germany, UK, US and EU launch ground-breaking International Just Energy Transition Partnership with South Africa' (European Commission Press Release, 2 November 2021) <https://bit.ly/3LnrF96> accessed 28 March 2022.

301 Pope Francis, *Laudato Si': On care for our common home* (Encyclical 2015) para 177.

302 Bridle et al. (n 163).

303 Oliver C Ruppel, 'Climate change law and policy in the African Union and selected African countries' in Jaap Spier and Ulrich Magnus (eds), *Climate change remedies: Injunctive relief and criminal law responses* (Eleven International Publishing 2014) 191-225; Oliver C Ruppel, 'Climate change, law and development in Africa: A reflection on selected aspects, relations and responses' in Hans-Joachim Koch et al. (eds), *Legal regimes for environmental protection, governance for climate change and ocean resources* (Brill & Nijhoff Publishers 2015) 89-125.

304 Ruppel et al. (n 235).

305 Jean-Claude N Ashukem, 'Public participation in environmental decision-making in Cameroon – myth or reality?' in Patricia Kameri-Mbote et al. (eds), *Law | Environment | Africa*. Publication of the 5th Symposium | 4th Scientific Conference | 2018 of the Association of En-

firming the country's international climate change obligations and the duty and responsibility of the state to limit unfavourable impacts of climate change in the context of socio-economic development activities.

It is equally encouraging that climate (and related) litigation in South Africa is progressively on the rise: On 8 April 2021, two environmental groups filed a petition for review of South Africa's Department of Forestry, Fisheries and the Environment's authorisation of the Richards Bay 3 000 MW gas-fired power plant. Plaintiffs are the South Durban Community Environmental Alliance and groundWork. They allege that the Environmental Impact Assessment of the project included an inadequate assessment of its climate impacts in that it failed to account for the full life-cycle emissions of natural gas. The plaintiffs allege that the greenhouse gas footprint of natural gas is worse than coal and oil on a climate-relevant 20-year timescale and that alternatives like renewable energy were not given adequate consideration, seeking a court decision to set aside government approvals of the power plant.[306]

In June 2021, an environmental justice organisation filed a suit challenging the South African government's approval of offshore oil and gas exploration by Eni South Africa and Sasol, challenging the authorisation on several grounds, including the government's failure to consider the climate impacts resulting from the exploration in its Environmental Impact Assessment. The plaintiffs allege that this is in violation of the country's climate change commitments, including those under the Paris Agreement, and its environmental assessment laws.[307]

In an order dated 27 May 2021, the Pretoria High Court declared that the environmental approval for the planned 600 MW Khanyisa coal-fired power station has expired. Khanyisa would have been built on the outskirts of Emalahleni, already plagued by toxic air pollution. The ruling came as a result of a legal challenge to the project's environmental authorisation by environmental justice group groundWork, represented by the Centre for Environmental Rights. groundWork initially launched the litigation against ACWA Power to challenge the project in the Pretoria High Court in 2017. It sought to set aside the environmental approval for the plant on the basis that ACWA Power failed adequately to assess the project's climate change impacts and that the Minister responsible for Environment (the late Minister Edna Molewa) failed to consider the climate change impacts before approving the project. The decision against the Khanyisa project reflects the power of public interest litigation. Another proposed coal project – the KiPower coal power station – also chal-

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vironmental Law Lecturers from African Universities in cooperation with the Climate Policy and Energy Security Programme for Sub-Saharan Africa of the Konrad-Adenauer-Stiftung (Law and Constitution in Africa Vol. 38, Nomos 2019) 357-373, 357.

306 Cf. <https://climate-laws.org/geographies/south-africa/litigation_cases/sdcea-groundwork-v-minister-of-forestry-fisheries-and-the-environment> accessed 23 December 2021.

307 Cf. < https://bit.ly/3HSXUes> accessed 6 March 2022.

lenged through litigation by groundWork, has also had its environmental authorisation lapse.[308]

Also, in 2021, the South African Constitutional Court has for a second time stopped an attempt by a coal-mining company to have it intervene in a lengthy legal battle over a proposed underground mine in the critical wetland water conservation area of Mabola, Mpumalanga. Uthaka Energy (Pty) Ltd (formerly known as Atha-Africa Ventures), a local subsidiary of India-based mining and minerals company Atha Group, had planned to start operations at its Yzermyn underground coal mine at Mabola earlier in 2021. The Constitutional Court dismissed the application by Uthaka Energy for leave to appeal an interdict order granted by the Pretoria High Court in March 2021.[309]

In November 2021, several civil society organisations launched a litigation case in the North Gauteng High Court against the South African government, demanding that it abandons its plans to build 1,500 MW of new coal-fired power on the grounds that it poses significant unjustifiable threats to constitutional rights. The so-called #CancelCoal court case was launched by the youth-based African Climate Alliance, the community-based Highveld group, the Vukani Environmental Justice Movement in Action and groundWork, represented by the Centre for Environmental Rights, against the Minister of Energy and the National Energy Regulator of South Africa, instituting court proceedings in the public interest and vindicating a constitutional right to an environment that is not harmful to health and wellbeing of present and future generations.[310] So, what we can see is that courts have the power to end 'business as usual'.[311] Some of the South African cases and many others around the globe came in the wake of COP26[312] and growing global consensus that, in the interest of a just energy transition, coal must be urgently phased out if the world is to prevent further catastrophic global warming.[313] In fact, it is imperative that all future climate policy will inevitably lead to a devaluation of fossil fuels. Yet, on the way to COP27

308 Cf. Centre for Environmental Rights, 'Final nail in the coffin for proposed Khanyisa Coal Power Station' (3 June 2021) <https://cer.org.za/news/final-nail-in-the-coffin-for-proposed-khanyisa-coal-power-station> accessed 23 December 2021.

309 Cf. John Yeld, 'ConCourt dismisses Uthaka Energy's appeal bid against Mpumalanga coal mining interdict' (Daily Maverick, 17 November 2021) <https://bit.ly/3NspNxP> accessed 28 March 2022.

310 Cf. Centre for Environmental Rights, 'Youth-led #CancelCoal climate case launched against government's plan for new coal-fired power' (17 November 2021) <https://cer.org.za/news/youth-led-cancelcoal-climate-case-launched-against-governments-plans-for-new-coal-fired-power> accessed 23 December 2021.

311 Robinson (n 289).

312 The COP26 outcome, the Glasgow Climate Pact constituted a significant step forward in multilateral climate policy, where governments, such as South Africa, have moved the goal-posts in revisiting their national targets in their NDCs and targeting coal and fossil fuels. In addition, the completion of the Paris Agreement rule book on transparency and on carbon markets was another important achievement of COP26.

313 Centre for Environmental Rights (n 308).

in Sharm el-Sheikh, Egypt further action is required to breathe more life into the Glasgow Climate Pact while addressing the socio-economic impacts of a just energy transition.

South Africa's contemporary economy, viewed through the lenses of climate justice, still projects the injustices of the past onto future generations because the burdens of mining and coal are still disproportionately borne by the poor, exacerbating the unjust legacies left behind by apartheid.[314] Ultimately, apartheid, colonialism and our imperial past in Africa have long been centred around power, ports, settlement structures, access to land, exploitation of natural resources and commodities such as metals, crops and minerals, and subjugated labourers and people. The history of climate change is therefore also a history of capitalism, colonialism and apartheid, all of which have always been accompanied by serious human rights violations.[315]

In this light, we not only need to design an improved accountability system and to manage our natural resources as public goods in a fairer and more equitable manner. So far, it has not been legally clarified how to deal with historical and extraterritorial responsibility implications of climate change.[316] In response thereto, we need to stretch traditional legal concepts in an intertemporal and interpersonal dimension, where today's climate responsibility must take into account both the injustices of the past and the fundamental rights of future generations and of nature itself. We thus need to counter the climate crisis in the interest of past, present and future generations and must perhaps start facing up to prevalent injustices in light of the term that Olof Palme, the then Prime Minister of Sweden, used in 1972 at the United Nations Conference on the Human Environment in Stockholm, to describe (severe, widespread, irreversible or long-term)[317] environmental damage: Ecocide.[318]

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314 Cf. Ramin Pejan, 'South Africa's youth take on coal and the climate crisis' (Earth Justice, 9 December 2021) <https://earthjustice.org/from-the-experts/2021-december/south-africas-youth-take-on-coal-and-the-climate-crisis> accessed 23 December 2021.

315 Miriam Saage-Maaß, 'Das Recht von Mensch und Natur: Der Kampf gegen die Klima- Apartheid' (2022) 2 Blätter für deutsche und internationale Politik 25-28.

316 Ibid.

317 In 2021, the Independent Expert Panel for the Legal Definition of Ecocide expressed its desire and determination to add ecocide as a new crime to the Rome Statute. The Panel recommends consequential amendments to the Rome Statute, such as Articles 5, 9, and to the International Criminal Court (ICC) Rules of Procedure and Evidence, and the Elements of Crimes. For the purpose of such amendment (Article 8(1)) 'ecocide' means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts. For the purpose of paragraph 1 'wanton' means with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated; 'severe' means damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources; 'widespread' means damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings; 'long-term' means damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time; and 'environment' means the earth, its biosphere,

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cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space. The word ecocide combines the Greek 'oikos', meaning house/home (and later understood to mean habitat/environment), with 'cide', meaning to kill. This draws on the approach taken by the Polish jurist Rafael Lemkin, who invented the word 'genocide' in November 1944; Stop Ecocide Foundation, Independent Expert Panel for the Legal Definition of Ecocide, 'Commentary and Core Text' (June 2021) <https://bit.ly/35kV9oZf>, accessed 28 December 2021.

318 Cf. Melissa Godin, 'Lawyers are working to put 'Ecocide' on par with war crimes. Could an international law hold major polluters to account?' (TIME, 19 February 2021) <https://time.com/5940759/ecocide-law-environment-destruction-icc/>, accessed 28 December 2021.

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