



The Implementation and Fulfilment of the Paris Agreement 2015 through South African Climate Change Law

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ABSTRACT

Climate change has become an international 21st century environmental concern. Various anthropogenic activities and wide-scale use of fossil fuels have led to the increase of greenhouse gas emissions into the atmosphere, which has been proved to be responsible for climate change. International climate change laws have been put in place in an effort to bring mitigation to climate change. The *Paris Agreement* is the most recent international climate change law being implemented towards climate change mitigation and it is the main focus of discussion in this research. Climate change mitigation, public participation and education and monitoring are the thematic areas chosen for discussion in the research, in an effort to establish how these provisions as outlined in the *Paris Agreement*, are being implemented and fulfilled through the South African climate change laws and policies. It is significantly recognised through this research, that public participation coupled with education and monitoring are strategic themes, which need to be incorporated towards effective climate change mitigation.

This mini-dissertation makes an analysis of the implementation and fulfilment of the *Paris Agreement* 2015 through South African climate change law, with specific focus on climate change mitigation, public participation and monitoring as thematic areas of study.

Keywords: climate change; mitigation; public participation; monitoring.

LIST OF ABBREVIATIONS AND ACRONYMS

AFOLU	Agriculture Forestry and Other Land Use
CBDR-RC	Common but Differentiated Responsibilities and Respective Capabilities
CDM	Clean Development Mechanisms
CEIT	Countries with Economies in Transition
CER	Certified Emission Reductions
COP	Conference of the Parties
DEA	Department of Environmental Affairs
DEROs	Desired Emission Reduction Objectives
EIA	Environmental Impact Assessment
GHG	Greenhouse Gases
GHGIP	Greenhouse Gas Inventory Improvement Programme
GwM&E	Government-wide Monitoring and Evaluation
IET	International Emissions Trading
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation KPI Key Performance Indicators
M&E	Monitoring and Evaluation
MEC	Member of the Executive Council
MRV	Measuring, Reporting and Verification
MtCO ₂ e	Metric Tons of Carbon Dioxide Equivalent
NCCR	National Climate Change Response
NCCRP	National Climate Change Response Policy
NDC	Nationally Determined Contributions
NDP	National Development Plan
NEMA	National Environmental Management Act

NEMAQA	National Environmental Management Air Quality Act
NFAQM	National Framework for Air Quality Management
NGHGIS	National GHG Information System
PAIA	Promotion of Access to Information Act
PAJA	Promotion of Administrative Justice Act
PELJ	Potchefstroom Electronic Law Journal
PER	Peer Reviewed Journal
SAAQIS	South African Air Quality Information System
SAJELP	South African Journal of Environmental Law and Policy
SALJ	South African Law Journal
SD	Sustainable Development
SDM	Sustainable Development Mechanism
SETs	Sectoral Emissions Targets
UNFCCC	United Nations Framework Convention on Climate Change

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Chapter 1: Background and introduction

1.1 Background

According to the climate action report by the United Nations, the decade between 2010 and 2019 was the warmest decade recorded in history.¹ Climate change continues to and is expected to increasingly affect *inter alia* the global community, national economies and also individual and local livelihoods.² This is evidenced by intense weather events that have ruptured the infrastructure that supports vital services including energy, transport and health in both urban and rural areas due to climate change effects.³ An increase in the frequency of natural disasters including massive wildfires, droughts, hurricanes and floods, prompted nations across the globe to engage towards climate change mitigation and various international conventions have been facilitated leading to the *Paris Agreement* at the Conference of Parties 21 in Paris, on 12 December 2015.⁴

The main objective of the *Paris Agreement* in terms of article 2(1), is the quest to enhance the implementation of the 1992 *United Nations Framework Convention on Climate Change* (hereinafter referred to as UNFCCC) and its *Kyoto Protocol*, which precede the *Paris Agreement*. According to article 2(1) of the *Paris Agreement*, in enhancing the implementation of the UNFCCC, the *Paris Agreement* aims to strengthen the global response to the threat of climate change. This is provided for in the context of sustainable development and the focus of article 2.1(a) of the *Paris Agreement* is to strengthen the global response to the threat and exacerbation of climate change by keeping a global temperature rise in this century well below 2 Degrees Celsius above pre-industrial levels and to limit the temperature increase to 1.5 degrees Celsius.⁵ Towards effective implementation, article 2(2) of the *Paris Agreement* seeks to reflect equity amongst its parties by upholding the principle of common but differentiated

¹ UN 2020 <https://www.un.org> 1.

² UN 2020 <https://www.un.org> 1.

³ Ruhl 2011 *NCLR* 1373.

⁴ UN 2020 <https://www.un.org> 1.

⁵ Article 2.1(a) of the *Paris Agreement* (2015).

responsibilities and respective capabilities. This principle allows for different climate-change mitigation commitments and obligations among states. Article 3 obliges the Parties to the *Paris Agreement* to commit and undertake to communicate ambitious efforts towards mitigation (which is within the scope of this research) through Nationally Determined Contributions (NDCs). These NDCs represent a progression over time, recognizing the need for developed countries to support developing country parties to ensure effective implementation towards mitigation. To achieve the long-term temperature goal as outlined in article 2, parties to the *Paris Agreement* in terms of article 4(1-2) ought to aim towards a global peak of greenhouse gas emissions and thereafter undertake to ensure rapid reductions by pursuing domestic mitigation measures to achieve the Nationally Determined Contributions. Being a developing country and having ratified the *Paris Agreement* in 2016, South Africa is obliged to fulfill its commitments under the *Paris Agreement* and present its ambitious goals through its Nationally Determined Contributions in terms of article 3 of the *Paris Agreement*.

Further, to fulfil the provisions of the *Paris Agreement*, effective and meaningful participation of the public as a strategic tool needs to be adopted and the preamble and article 12 of the *Paris Agreement* give affirmation of the importance of meaningful public participation at all levels. Specifically, article 12 provides that parties should cooperate and take appropriate measures to enhance climate change education, training, public awareness, and access to information. All these attributes contribute towards effective and meaningful public participation to ensure fulfilment of the *Paris Agreement*.

In pursuit of monitoring progress, parties to the *Paris Agreement* are obliged in terms of article 14 to periodically take stock of the implementation of this agreement in a comprehensive and facilitative manner and assess the collective progress towards achieving the purpose of the agreement and its long-term goals. This process has been labeled as the "global stock take".⁶

⁶ Article 14 of the *Paris Agreement* (2015).

It is against this background that an analysis will therefore be made in this dissertation regarding how the *Paris Agreement* has been fulfilled and implemented through South African policies and legislations, towards climate change mitigation. The research question seeks to establish how South African climate change law specifically embraces issues of climate change mitigation, public participation and monitoring of progress towards implementation and fulfilment of the *Paris Agreement*.

To answer the research question, specific focus will be given to three key aspects of the *Paris Agreement* being, namely (1) Article 4 on climate change mitigation; (2) Article 12 on public education, participation, and access to information; and (3) Article 13.5 and Article 14 on Monitoring of progress, learning from plans, policies, programmes and actions towards contributing to the global stock take.

Further, a legal analysis will be made of provisions of various pieces of South African legislation, policies and plans, amongst others the *Constitution of the Republic of South Africa*, 1996 (hereinafter referred to as the Constitution), *National Environmental Management Act 107 of 1998* (hereinafter referred to as NEMA), the *Climate Change Bill 2018*, the 2010 *National Climate Change Response Green Paper* (hereinafter referred to as NCCR *Green Paper*), the 2011 *National Climate Change Response White Paper* (hereinafter referred to as NCCR *White Paper*) and the 2007 *Government-wide Monitoring and Evaluation* (hereinafter referred to as GwM&E), to establish how the provisions of the *Paris Agreement* and its preceding UNFCCC and its *Kyoto Protocol* are being fulfilled and implemented.

To achieve the objectives of this research, a desktop study will be concluded. Various legal instruments relating to climate change mitigation, public participation and monitoring shall be analysed from international to domestic instruments, legal framework, policies, and plans. Reference to case law will be made when necessary to reflect how the climate change policies are being upheld in the South African courts.

The framework of this research is strategically structured, and Chapter 2 of this research will undertake an analysis of international climate change law with specific focus on the *Paris Agreement* to ascertain the provisions of the climate change

mitigation. Chapter 3 of this research will analyse the South African climate change law and especially examine how the laws and policies attempt to fulfil the provisions of the *Paris Agreement*, focusing on mitigation. The author will then proceed to Chapter 4, which focuses on how the South African climate change laws and policies have provided for the implementation and fulfilment of the *Paris Agreement* with regard to public participation towards climate change mitigation. Chapter 5 will focus on how the South African climate change laws and policies have provided for the implementation and fulfilment of the *Paris Agreement* with regard to monitoring of progress towards climate change mitigation. Chapter 6 will bring the research to a conclusion with recommendations. It is of importance however to mention that the *Paris Agreement* has recently been followed up by the Glasgow Climate Pact 2021. However, at the time of the Global Climate Pact this dissertation was already a work in progress and its study is limited up to the *Paris Agreement*, hence there is no reference to the developments made at the Glasgow Climate Pact.

Chapter 2: Analysis of international climate change law with specific focus on *Paris Agreement*

2.1 Introduction

The Intergovernmental Panel on Climate Change (hereinafter referred to as IPCC) has defined climate change as the change and variables which exist in the state of the climate that can be identified through instruments and the use of statistical tests.⁷ Climate change is also evidenced by the changes in property variabilities that persist for significantly extended periods amounting to decades.⁸ Ssekamatte established that climate change is caused by a combination of natural factors, which include volcanic eruptions and changes in solar radiation and human (anthropogenic) activities.⁹ These human activities include land use and activities that lead to release of gaseous emissions due to fossil fuel combustions in the atmosphere.¹⁰ These activities have brought unprecedented changes and the state of affairs has led to the manifestation of its effects, which include negatively affecting economies, health, housing, the environment and its biodiversity, production and consumption systems, food supply and nutrition, economic and social infrastructure, making climate change and its effects a global concern.¹¹ Climate changes have brought about significant and deleterious effects **to** the composition, resilience and productivity of natural and managed ecosystems.¹² It is anticipated that climate changes will be the current and future driver of a series of ongoing, comprehensive and cross-cutting impacts to which no human or natural system/ecosystem is immune.¹³

⁷ IPCC 2014 https://climateanalytics.org/media/ipcc_syr_ar5__2014_.pdf 5-6; see also Ssekamatte 2018 *Afr Eval J 4*.

⁸ IPCC 2014 https://climateanalytics.org/media/ipcc_syr_ar5__2014_.pdf 5-6; see also Ssekamatte 2018 *Afr Eval J 4*.

⁹ Ssekamatte 2018 *Afr Eval J 4*.

¹⁰ Ssekamatte 2018 *Afr Eval J 4*.

¹¹ IPCC (2014) https://climateanalytics.org/media/ipcc_syr_ar5__2014_.pdf 5; see also Ssekamatte 2018 *Afr Eval J 4*.

¹² Article 1(1) of the *United Nations Framework Convention on Climate Change* (1992).

¹³ Gilder and Swanepoel "Climate Change" 736.

In an effort to address the effects of climate change, the global regulatory system on environmental protection was adopted.¹⁴ This international response led to the establishment of the 1992 UNFCCC, its *Kyoto Protocol* and the 2015 *Paris Agreement* treaties.¹⁵ In these treaties several strategies including climate change mitigation interventions, which is the main focus of this dissertation, were adopted towards reducing greenhouse gas (GHG) concentrations.¹⁶

Climate change mitigation has been defined as an intervention, which reduces and enhances the sink of GHG concentrations.¹⁷ This is achieved by the incorporation of measures that reduce GHG emissions and carbon which lead to climate change variation in of the atmosphere.¹⁸ Such interventions include, amongst others, investment in cleaner energies towards forest conservation.¹⁹ Towards effective implementation therefore, climate change mitigation should be executed in collaboration with other measures that have been adopted in other carbon-emitting sectors.²⁰ These include energy, mining, industry, agriculture, and transport sectors.²¹ This chapter will proceed to give a brief overview of the UNFCCC and its *Kyoto Protocol* that preceded the *Paris Agreement*, where after a detailed discussion of the latter will be ventured into. In analysing the *Paris Agreement*, specific focus will be made on mitigation as a thematic area, its objectives and the mechanisms being adopted towards mitigation. Further analysis will also be carried out in respect of public participation and monitoring in an effort to establish the provisions of the *Paris Agreement* in these thematic areas.

2.2 United Nations Framework Convention on Climate Change (UNFCCC)

After the UNFCCC was adopted at the 1992 United Nations Conference on the Environment and Development in Rio de Janeiro (Brazil), the UNFCCC, noted that a

¹⁴ Legora *South Africa's international climate change mitigation* 3.

¹⁵ Ssekamatte 2018 *Afr Eval J* 4-5.

¹⁶ Ssekamatte 2018 *Afr Eval J* 4-5.

¹⁷ Ssekamatte 2018 *Afr Eval J* 4.

¹⁸ Ssekamatte 2018 *Afr Eval J* 4.

¹⁹ Ssekamatte 2018 *Afr Eval J* 4.

²⁰ Legora *South Africa's international climate change mitigation* 6.

²¹ Legora *South Africa's international climate change mitigation* 6.

significant share of historical and current global emissions of GHGs originated in developed countries.²² The conference also noted that per-capita emissions in developing countries were relatively low, though with a possibility of global emissions in developing countries growing with time as societies strive to meet their social and development needs.²³

According to the UNFCCC objective, it is envisioned that such a level should be achieved within a specified timeframe, which is sufficient to enable ecosystems to adapt naturally to climate change.²⁴ In doing so it is paramount that there is no threat to food production and that sustainable economic development is pursued.²⁵

The UNFCCC further acknowledges the global nature of climate change, evidenced by its call for the widest possible cooperation by all countries, in which participation is encouraged in accordance with their common but differentiated responsibilities and respective capabilities (CBDR-RC).²⁶ This principle takes into consideration the socio-economic conditions of countries and their specific national and regional development priorities.²⁷ To ensure smooth implementation, the UNFCCC also recognises that states should enact effective environmental legislation and policies.²⁸ The CBDR-RC principle has therefore underpinned the international climate change regime, inasmuch as it introduced the concept of different obligations in terms of mitigation between Annexed and non-Annexed 1 countries as regards the reduction of GHG emissions.²⁹ An analysis of this principle will be made as the dissertation unfolds.

The UNFCCC also outlines other principles that parties should take into consideration when implementing their commitments under the climate change regime. Upholding of the precautionary principle is emphasised, whereby parties should take "precautionary measures to anticipate, prevent or minimize the causes of climate

²² Preamble of the UNFCCC (1992).

²³ Preamble of the UNFCCC (1992).

²⁴ Article 2 of the UNFCCC (1992).

²⁵ Article 2 of the UNFCCC (1992).

²⁶ Preamble of the UNFCCC (1992).

²⁷ Preamble of the UNFCCC (1992).

²⁸ Preamble of the UNFCCC (1992).

²⁹ Legora *South Africa's international climate change mitigation* 8.

change", towards mitigating its adverse effects.³⁰ Particularly where there are threats of serious or irreversible damage, measures and policies should be promulgated to deal with climate change inasmuch as they are cost-effective towards ensuring global benefits at the lowest possible cost.³¹ Further, the UNFCCC urges countries to promulgate policies and measures, which take into consideration different socio-economic contexts, comprehensively covering all relevant sources, sinks and reservoirs of greenhouse gases in all economic sectors, which sources, sinks and reservoirs of GHG are caused by anthropogenic activities.³² The principle of sustainable development has also been provided for as paramount and a cornerstone when the implementation of obligations outlined in the Convention is considered.³³ Sustainable development embraces the integration of environmental protection and socio-economic development, as well as the inter-generational and intra-generational equity, which are important elements in climate change mitigation.³⁴

Commitments to mitigation therefore find their backbone in the effective implementation of the CBDR-RC principle. This is because the UNFCCC provides that all parties should consider their CBDR-RC and their specific national and regional development priorities, objectives and circumstances and shall:³⁵

- "(b) Formulate, implement, publish, and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change.³⁶
- (f) Take climate change considerations into account, to the extent feasible, in their relevant social, economic, and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy,

³⁰ Article 3(3) of the UNFCCC (1992).

³¹ Article 3(3) of the UNFCCC (1992).

³² Article 3(3) of the UNFCCC (1992).

³³ Articles 3(4)-3(5) of the UNFCCC (1992). Puts emphasis on the need to consider economic development in undertaking the appropriate measures to address climate change and acknowledges the existence of a link between the environment and sustainable economic growth.

³⁴ Strydom, King and Retief *Environmental Management* 9.

³⁵ Article 4(1) of the UNFCCC (1992).

³⁶ Article 4(1) (b) of the UNFCCC (1992).

on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change."³⁷

Although article 4 makes constant reference to both mitigation and adaptation, the scope of this dissertation is limited to mitigation, and in conjunction with mitigation, the CBDR-RC has manifested a differentiated regime which does not impose a common standard.³⁸ Hence, giving parties the discretion to determine their levels of implementation, taking into consideration specific goals and unique circumstances.³⁹

In relation to education, training, and public awareness, the UNFCCC acknowledges that in order to effectively carry out the commitments outlined under article 4(1)(i), the parties should, according to their national laws and regulations within their respective capacities, work on promoting and facilitating at the national level:

- (i) "The development and implementation of educational and public awareness programmes on climate change and its effects
- (ii) Public access to information on climate change and its effects.
- (iii) Public participation in addressing climate change and its effects and developing adequate responses; and
- (iv) Training of scientific, technical, and managerial personnel."⁴⁰

It is even more important to uphold the drive for implementation and development of training and educational programmes.⁴¹ This include the strengthening of national institutions, together with the exchange of personnel in pursuit of the goal of training the experts in this field, particularly for developing countries.⁴²

Article 7 of the UNFCCC provides for the establishment of a Conference of the Parties (COP), which would function as the supreme body of the Convention, keeping regular reviews of the implementation of the Convention in collaboration with other legal

³⁷ Article 4(1) (f) of the UNFCCC (1992).

³⁸ Yamin and Depledge *The International Climate Change Regime* 93.

³⁹ Yamin and Depledge *The International Climate Change Regime* 93.

⁴⁰ Article 6(a) of the UNFCCC (1992).

⁴¹ Article 6(b) (i-ii) of the UNFCCC (1992).

⁴² Article 6(b) (i-ii) of the UNFCCC (1992).

instruments adopted by the COP, including decision-making on any issues aligned with its mandate towards effective implementation of the Convention.⁴³

In respect of the communication of information relating to implementation of the Convention, a provision is made for parties to communicate to the COP through its secretariat, information relating to:

- “(a) A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties
- (b) A general description of steps taken or envisaged by the Party to implement the Convention and
- (c) Any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.”⁴⁴

A provision is also made specifically for developed country parties and other parties included in Annex I, to incorporate in its communication:

- “(a) A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(a) and 2(b); and
- (b) A specific estimate of the effects that the policies and measures referred to in subparagraph (a) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(a).”⁴⁵

Parties are also directed to make a joint communication in fulfilment of their obligations, which communication includes information relating to the fulfilment by each of these Parties of its individual obligations under the Convention.⁴⁶

The UNFCCC also makes provision for an overall framework for the parties to negotiate specific international treaties, called protocols, which may give an outline of legally

⁴³ Article 7 (1-2) of the UNFCCC (1992).

⁴⁴ Article 12(1) of the UNFCCC (1992).

⁴⁵ Article 12(2) of the UNFCCC (1992).

⁴⁶ Article 12(8) of the UNFCCC (1992).

binding limits on the GHG emissions.⁴⁷ It is through the implementation of this provision that the parties to the UNFCCC adopted the *Kyoto Protocol* in 1997.⁴⁸

2.3 *Kyoto Protocol*

Parties to the UNFCCC adopted the *Kyoto Protocol* in 1997 (herein referred as the *Protocol*), which came into force in February 2005.⁴⁹ The main aim of the *Protocol* was to operate as a tool of promoting and giving effect to the implementation of the UNFCCC and its objectives, particularly the setting of emission targets that are legally binding for industrialised countries, spanning from 2008 to 2012.⁵⁰ The *Protocol* also aimed at providing for the mitigation of emission of greenhouse gases, amongst other mechanisms putting into consideration the CBDR.⁵¹ Article 3 of the *Protocol* specifically provides that:

“The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.”⁵²

The *Kyoto Protocol* further gives an elaboration of the UNFCCC and places more specific obligations upon developed countries and Countries with Economies in Transition (CEIT). Annex A to the *Protocol* specifically provides for greenhouse gases in the *Protocol*, amongst others carbon dioxide, methane, nitrous oxide and hydro fluorocarbons.⁵³ In particular, parties to Annex 1 of the UNFCCC are under an obligation to "reduce their overall emissions of six greenhouse gases by at least 5% below 1990 levels" during the period from 2008 and 2012, which was the first

⁴⁷ Article 17 of the UNFCCC (1992).

⁴⁸ *Kyoto Protocol* (1997).

⁴⁹ Article 3 of the *Kyoto Protocol* (1997). The protocol was adopted at COP 3 in Kyoto, Japan in 1997.

⁵⁰ Böhringer 2003 *Oxford Rev Econ Policy* 451.

⁵¹ Kidd *Environmental Law* 64.

⁵² Article 3 of the *Kyoto Protocol* (1997).

⁵³ See Annexure A of the *Kyoto Protocol* (1997) for more greenhouse gases.

commitment period.⁵⁴ The *Protocol* does, however, make it optional for non-Annex 1 parties to make comparable cuts.⁵⁵

In pursuit of mitigation, the *Protocol* also provides that:

“... for the purpose of meeting its commitments under Article 3, any Party included in Annex I may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy.”⁵⁶

Article 10(b) of the *Protocol* endorses the CBDR-RC principle and admonishes all parties including developing countries to formulate, implement, publish and regularly update programmes that contain measures to mitigate climate change.⁵⁷ This is subject to the financial assistance received by non-Annex 1 from Annexed countries.⁵⁸ The *Protocol* then proceeds to outline the possible mitigation mechanisms to be implemented in pursuit of the goal of climate change mitigation.

The *Kyoto Protocol* also takes cognisance of public participation and provides that parties to the UNFCCC who might not be parties to the *Protocol* are allowed to participate as observers during the conference of parties' sessions.⁵⁹ The *Kyoto Protocol* also provides for public participation under the clean development mechanism, including participation in activities mentioned in the acquisition of certified emission reductions.⁶⁰ Such participation may involve private and/or public entities, subject to whatever guidance may be provided by the executive board of the clean development mechanism.⁶¹

Pertaining to monitoring, the *Kyoto Protocol* provides that:

“The Conference of the Parties serving as the meeting of the Parties to this Protocol shall keep under regular review the implementation of this Protocol and shall make,

⁵⁴ Article 3(1) of the *Kyoto Protocol* (1997).

⁵⁵ Glazewski and Du Toit "International Climate Change Law" 12.

⁵⁶ Article 6(1) of the *Kyoto Protocol* (1997).

⁵⁷ Article 10(b) of the *Kyoto Protocol* (1997).

⁵⁸ Article 11 of the *Kyoto Protocol* (1997).

⁵⁹ Article 13(2) of the *Kyoto Protocol* (1997).

⁶⁰ Article 12(9) of the *Kyoto Protocol* (1997).

⁶¹ Article 12(9) of the *Kyoto Protocol* (1997).

within its mandate, the decisions necessary to promote its effective implementation."⁶²

Article 13(4)(a) also calls for the regular assessment of the implementation of the *Protocol* and the overall effects and impact of the measures taken pursuant to the implementation of the *Kyoto Protocol*.⁶³ Further, the *Kyoto Protocol* provides for periodic examination of the obligations of its Parties and adoption of regular reports, taking consideration of reviews required by the UNFCCC.⁶⁴ It also provides that parties should take into account the experience gained in its implementation and the evolution of scientific and technological knowledge.⁶⁵

The *Kyoto Protocol* however went through an adoption of several amendments at the 18th COP (with a resolution requiring that 144 country Parties lodge their instruments of acceptance before the amendments entered into force).⁶⁶ This included the establishment of a second commitment, and an overall GHG emission reduction target for the second commitment period together with the inclusion of an additional seventh GHG (nitrogen trifluoride) to the list of greenhouse gases as outlined in Annex A to the *Protocol*.⁶⁷ Various countries, including South Africa, ratified the *Doha Amendment* at the COP 18 in Doha in 2012 known as the *Doha Amendment to the Kyoto Protocol* (hereafter *Doha Amendment*).⁶⁸ This amendment was considered a significant part of the momentum for global climate action for the years leading up to 2020.⁶⁹ This is the period when the operation of the *Kyoto Protocol* would come to an end.⁷⁰

The *Doha Amendment* brought new commitments for Annex I Parties to the *Kyoto Protocol*, who agreed to take up commitments during the second commitment period, starting from 1 January 2013 to 31 December 2020.⁷¹ It also introduced a revised list

⁶² Article 13(4) of the *Kyoto Protocol* (1997).

⁶³ Article 13(4) (a) of the *Kyoto Protocol* (1997).

⁶⁴ Article 13(4) (b) of the *Kyoto Protocol* (1997).

⁶⁵ Article 13(4) (b) of the *Kyoto Protocol* (1997).

⁶⁶ UNFCCC 2012 <http://unfccc.int/resource/docs/2012/cmp8/eng/13a01.pdf> 2.

⁶⁷ UNFCCC 2012 <http://unfccc.int/resource/docs/2012/cmp8/eng/13a01.pdf> 2.

⁶⁸ UNFCCC 2012 <http://unfccc.int/resource/docs/2012/cmp8/eng/13a01.pdf> 2.

⁶⁹ UNFCCC date unknown http://unfccc.int/kyoto_protocol/doha_amendment/items/7362.php.

⁷⁰ Legora *South Africa's international climate change mitigation* 3.

⁷¹ UNFCCC date unknown https://unfccc.int/files/kyoto_protocol/application/pdf/kp_doha_amendment.

of GHG to be reported on by Parties in the second commitment period.⁷² This included highlights of amendments to several provisions of the *Kyoto Protocol* on issues pertaining to the first commitment period, which needed updating towards effective implementation in the second commitment period.⁷³

2.3.1 Flexible mechanisms

Three so-called "flexible mechanisms" were established under the *Kyoto Protocol* to be utilized by Annex 1 parties towards compliance as regards their commitments to reduction of greenhouse gas emissions.⁷⁴ These are emissions trading-International Emissions Trading (IET),⁷⁵ joint implementation (JI) between developed countries; and the Clean Development Mechanisms (CDM),⁷⁶ and these mechanisms seek to encourage joint emissions reduction projects between Annex 1 countries and non-Annex 1 countries.⁷⁷

The IET and JI mechanisms are specifically applicable to Annexed countries and as such, go beyond the focus and scope of this dissertation. However, the IET allows Annex 1 parties with an emission reduction commitment to "buy" part of the emissions budget of another Annex 1 party, instead of undertaking the potentially more costly reduction domestically.⁷⁸ The concept of JI allows any Annex 1 party to transfer to, or acquire from, any other Annex 1 party emission reduction units that result from projects aimed at reducing anthropogenic emissions by sources, or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy.⁷⁹ As mentioned above, these mechanisms are specifically applicable to Annexed countries and as such, go beyond the focus and scope of this dissertation. Therefore, a brief discussion that outlines the concepts of these mechanisms has been given

⁷² UNFCCC date unknown https://unfccc.int/files/kyoto_protocol/application/pdf/kp_doha_amendment.

⁷³ UNFCCC date unknown https://unfccc.int/files/kyoto_protocol/application/pdf/kp_doha_amendment.

⁷⁴ Glazewski and Du Toit "International Climate Change Law" 12.

⁷⁵ Articles 6, 12 (3) (a)-(3)(b), (5) of the *Kyoto Protocol* (1997).

⁷⁶ Article 12 of the *Kyoto Protocol* (1997).

⁷⁷ Glazewski and Du Toit "International Climate Change Law" 12.

⁷⁸ Glazewski and Du Toit "International Climate Change Law" 14.

⁷⁹ Glazewski and Du Toit "International Climate Change Law" 14.

inasmuch as these mechanisms might be applicable in the future South African context.⁸⁰ Focus will now be given to the concept of CDM since it is relevant to South Africa, which falls within the scope of this dissertation.⁸¹

2.3.2 *Clean development mechanisms*

The main objective of the CDM is clearly outlined in the *Protocol* as:

"... to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3."⁸²

Furthermore, the needs of developing countries are provided for in the *Protocol* through the CBDR-RC principle, which is yet to be discussed.⁸³ The CDM mainly assists non-Annex 1 parties with the ability to achieve sustainable development through environmentally friendly projects and investments from Annexed countries.⁸⁴ As such, this contributes to the main objective of the Convention and at the same time assists Annex 1 parties in complying with their emission reduction commitments.⁸⁵ The Convention provides that under the CDMs, developed country parties may venture into implementation of "project activities" in developing country parties.⁸⁶ This results in tangible, measurable and long-term benefits pertaining to mitigation of climate change.⁸⁷ The CDMs also generate a tradable commodity of emissions referred to as "certified emission reductions" (CER) or "carbon credits".⁸⁸ The credits are also provided for use by the developed countries that implement projects in developing countries to assist the developed countries to meet their emission reduction targets.⁸⁹ It is however argued that while the CDMs are designed to assist countries with the

⁸⁰ Author's analysis.

⁸¹ Legora *South Africa's international climate change mitigation* 25; see also Glazewski and Du Toit "International Climate Change Law" 14.

⁸² Article 12(2) of the *Kyoto Protocol* (1997).

⁸³ Article 4(1) of the UNFCCC.

⁸⁴ Legora *South Africa's international climate change mitigation* 25.

⁸⁵ Article 12(2) of the *Kyoto Protocol*.

⁸⁶ Article 12(5) (b) of the *Kyoto Protocol*.

⁸⁷ Article 12(5) (b) of the *Kyoto Protocol*.

⁸⁸ Article 12(10) of the *Kyoto Protocol*.

⁸⁹ Article 12(3) (b) of the *Kyoto Protocol*; see also a 16(b) of the *Kyoto Protocol*.

reduction of their GHG emissions, they continue to be portrayed as economic mechanisms instead of as a means through which the country can significantly reduce current GHG emissions.⁹⁰ This results in a growing disparity between non-Annex I countries in terms of the number of CDM projects.⁹¹

2.4 Paris Agreement

The birth of the *Paris Agreement* came in pursuit of the Durban Platform for Enhanced Action established by decision 1/CP.17 of the COP to the Convention towards fulfillment of the objectives of the Convention. This was guided by the principles of the Convention, which upheld the principle of equity and CBDR-RC, while taking into consideration different national circumstances.⁹² According to Glazewski, the conclusion of the landmark 2015 *Paris Agreement* came at a critical time when, among other things, a second commitment period had been agreed to under the *Kyoto Protocol*, but was not yet in effect and was coming under increasing political pressure.⁹³ This resulted in uncertainty around climate action post 2020, when the second commitment period was coming to an end.⁹⁴

Further, continuous tension between developed and developing countries regarding responsibility in responding to climate change, necessitated the introduction of a new approach.⁹⁵ This approach ensured the highest level of participation possible.⁹⁶ It was achieved by a departure from the historical top-down approach in the *Kyoto Protocol's* imposition of emission reduction targets and by calling for the submission of NDCs every five years.⁹⁷ These NDCs would reflect progress over time on the basis of equity.⁹⁸ The *Paris Agreement* represents a paradigm shift in global climate governance

⁹⁰ Legora *South Africa's international climate change mitigation* 26.

⁹¹ Legora *South Africa's international climate change mitigation* 26.

⁹² Preamble of the *Paris Agreement* (2015).

⁹³ Glazewski and Du Toit "International Climate Change Law" 15.

⁹⁴ Glazewski and Du Toit "International Climate Change Law" 15.

⁹⁵ The NDC's communicated by Parties shall be recorded in a public registry maintained by the secretariat in terms of a 4(12).

⁹⁶ The NDC's communicated by Parties shall be recorded in a public registry maintained by the secretariat in terms of a 4(12). See also a 4(9) of the *Paris Agreement* (2015).

⁹⁷ The NDC's communicated by Parties shall be recorded in a public registry maintained by the secretariat in terms of a 4(12). See also a 4(9) of the *Paris Agreement* (2015).

⁹⁸ Article 3-4(1) of the *Paris Agreement* (2015).

and this agreement upheld the legally binding aspect upon the parties who ratified it.⁹⁹ The *Paris Agreement* acknowledges that climate change is a common concern of humankind.¹⁰⁰ As such, parties should respect, promote and consider the obligations relating to human rights, local communities, the right to development, as well as intergenerational equity when addressing climate change.¹⁰¹

The *Paris Agreement* in article 2(1) seeks to enhance the implementation of the 1992 UNFCCC and strengthen the global response to climate change, by holding that:

“...the increase in the global average temperature to well below 2°C above preindustrial levels and pursuing efforts to limit the temperature increase to 1.5°C above preindustrial levels.”¹⁰²

Similar to the *Kyoto Protocol*, like a common thread running through, the Paris Agreement incorporated of the CBDR-RC principle, which takes into consideration the unique national circumstances of parties towards achieving the goals stated in the Agreement.¹⁰³ The main objective of this principle, which is core in underpinning the international climate change regime, is to enhance issues of governance in implementing the UNFCCC and differentiating climate change mitigation obligations between states. This differentiation is justified by existing wealth disparities, resource consumption between countries and the variation in the degree of contribution to climate change.¹⁰⁴

This principle evolved from the notion of the common heritage of mankind posing as a manifestation of the general principles of equity in international law.¹⁰⁵ It has been broadly interpreted as entailing a duty of cooperation in achieving global sustainable development.¹⁰⁶ The principle acknowledges the diverse roles that developed and

⁹⁹ Legora *South Africa's international climate change mitigation* 26.

¹⁰⁰ Preamble of the *Paris Agreement* (2015).

¹⁰¹ Preamble of the *Paris Agreement* (2015).

¹⁰² Article 2(1) of the *Paris Agreement* (2015).

¹⁰³ Glazewski and Du Toit "International Climate Change Law" 16; see also a 2(2) of the *Paris Agreement* (2015).

¹⁰⁴ Legora *South Africa's international climate change mitigation* 15.

¹⁰⁵ Barnard 2016 *PELJ* 214-215.

¹⁰⁶ Barnard 2016 *PELJ* 214-215.

developing states play in solving global environmental problems. Hence, their financial and technological capacity for addressing these challenges is considered.¹⁰⁷

Further, the duty gives states an obligation to protect the environment, particularly the commonly shared resources and at the same time acknowledging the discrepancies in the capacities between developing and developed states towards environmental protection.¹⁰⁸ The duty also translates into the setting of differentiated environmental standards and, amongst other things, considers the future economic development of countries, present and historical contributions to the creation of any given environmental degradation, thus promoting substantive equality among States.¹⁰⁹ For other scholars, this principle can be regarded as a translation of the intra-generational equity principle to the inter-state level, inasmuch as it requires consideration of the different socio-economic positions of states and also translated to the principle of inter-generational equity at the inter-state level.¹¹⁰ It therefore prescribes that history and past contributions to environmental degradation should be considered and by giving all parties an obligation to take measures aimed at mitigating climate change, "in the light of different national circumstances", as such the *Paris Agreement* retained the CBDR-RC principle.¹¹¹

2.4.1 *Paris Agreement focus on mitigation*

Climate change mitigation is the focal area of this research. Article 4(2) of the *Agreement* encourages parties to prepare, communicate and maintain successive NDCs that it intends to achieve and to pursue domestic mitigation measures.¹¹² The aim of this provision is to achieve the objectives of the *Agreement* through NDCs, which should reflect the CBDR-RC based on different national circumstances.¹¹³ Towards ensuring the achievement of the long-term temperature goal outlined in article 2, the parties to the *Agreement* aim to reach global peaking of greenhouse gas

¹⁰⁷ Hey *Advanced Introduction* 69.

¹⁰⁸ Barnard 2016 *PELJ* 214-215.

¹⁰⁹ Barnard 2016 *PELJ* 214-215.

¹¹⁰ Hey *Advanced Introduction* 69-70.

¹¹¹ Article 2(2) of the *Paris Agreement* (2015).

¹¹² Article 4(3) of the *Paris Agreement* (2015).

¹¹³ Article 4(3) of the *Paris Agreement* (2015).

emissions as soon as possible, with the recognition that peaking will take a longer period in developing country Parties.¹¹⁴ Furthermore, contrary to the *Kyoto Protocol*, the *Paris Agreement* encourages developing country Parties to enhance their efforts to mitigation and continue moving towards emission reduction or limitation targets over time.¹¹⁵ As the parties achieve this, they should take into consideration the unique national circumstances.¹¹⁶ Article 4(4) obliges developed country Parties to continue taking the lead by undertaking economy-wide absolute emission reduction targets.¹¹⁷ Developed countries are also obliged to provide financial resources to assist developing country Parties to implement and fulfil their obligations towards mitigation.¹¹⁸

In communicating nationally determined contributions, the *Paris Agreement* provides that all Parties should provide necessary information for the purpose of "clarity, understanding and transparency in accordance with decision 1/CP.21".¹¹⁹ To provide for flexibility, the *Paris Agreement* gives leeway for parties to be able to adjust existing nationally determined contributions to enhance their level of ambition.¹²⁰

Furthermore, parties should consider existing methods and guidance under the Convention as appropriate, in the light of the provisions of paragraph (4)13 when they recognise and implement mitigation actions with respect to anthropogenic emissions and removals, particularly in the context of parties' nationally determined contributions

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While the *Kyoto Protocol* provided for the three so-called flexible mechanisms (JI, Emissions Trading and the CDM), the *Paris Agreement* provided for one other mechanism, namely the sustainable development mechanism (SDM).¹²² This

¹¹⁴ Article 4(1) of the *Paris Agreement* (2015).

¹¹⁵ Article 4(4) of the *Paris Agreement* (2015)

¹¹⁶ Article 4(4) of the *Paris Agreement* (2015); see also Glazewski and Du Toit "International Climate Change Law" 16.

¹¹⁷ *Paris Agreement* (2015).

¹¹⁸ Article 9 of the *Paris Agreement* (2015).

¹¹⁹ Article (4)8 of the *Paris Agreement* (2015).

¹²⁰ Article 4(11) of the *Paris Agreement* (2015).

¹²¹ Article 4(14) of the *Paris Agreement* (2015).

¹²² Glazewski and Du Toit "International Climate Change Law" 16.

mechanism has been referred to as new mechanism in relation to climate change.¹²³

The *Paris Agreement* provides that:

"A mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development is hereby established under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Agreement for use by Parties on a voluntary basis."¹²⁴

Towards ensuring environmental integrity, sustainable development and transparency.¹²⁵ The main objective of the SDMs is to deliver an emissions reduction with reference to the NDC.¹²⁶ This will ensure an overall reduction in global emissions, at the same time upholding sustainable development benefits.¹²⁷ The major difference between the new SDM and the old CDM, according to scholars, is that carbon markets will no longer be limited to developed country parties only.¹²⁸ Instead, all parties will be eligible to participate. This development has caused the SDM to be viewed as a "successor in interest" to the regulatory infrastructure established under the *Kyoto Protocol's* CDM, which was designed to replace and refine the CDM mechanism from 2020 onwards.¹²⁹ Specifically, the *Paris Agreement* provides that the mechanism aims:

- "(a) To promote the mitigation of greenhouse gas emissions while fostering sustainable development;
- (b) To incentivize and facilitate participation in the mitigation of greenhouse gas emissions by public and private entities authorized by a Party;
- (c) To contribute to the reduction of emission levels in the host Party, which will benefit from mitigation activities resulting in emission reductions that can also be used by another Party to fulfil its nationally determined contribution; and
- (d) To deliver an overall mitigation in global emissions."¹³⁰

However, the *Paris Agreement* also makes a provision for parties to act jointly in setting common NDC as they pursue domestic mitigation measures which share a similar

¹²³ Glazewski and Du Toit "International Climate Change Law" 16.

¹²⁴ Article 6(4) of the *Paris Agreement* (2015). It is also important to note that supervision of the SDM is executed by a body designated by the Conference of the Parties.

¹²⁵ Article 6(2) of the *Paris Agreement* (2015).

¹²⁶ Glazewski and Du Toit "International Climate Change Law" 17.

¹²⁷ Glazewski and Du Toit "International Climate Change Law" 17.

¹²⁸ Glazewski and Du Toit "International Climate Change Law" 17.

¹²⁹ Glazewski and Du Toit "International Climate Change Law" 17.

¹³⁰ Articles 6(4) (a) - 6(4)(d) of the *Paris Agreement* (2015).

characteristic with the *Kyoto Protocol*, though under the *Paris Agreement* the mechanism does not differentiate between participants.¹³¹ This makes all Parties eligible to participate.¹³² Scholars like Bodansky made an analysis of the *Paris Agreement* and established that the legal nature of the *Paris Agreement* as well as its individual provisions create a number of mandatory and non-mandatory obligations.¹³³ However, it has a shortcoming in that it fails to provide for a clear enforcement machinery in its provisions.¹³⁴

2.4.2 Public participation

The *Paris Agreement* affirms the importance of education, training, public awareness, public participation, public access to information and cooperation at all levels towards effective implementation.¹³⁵ The *Agreement* also recognises the significance of engagements at all levels of government and various stakeholders.¹³⁶ This is so according to parties' national legislations in addressing climate change.¹³⁷ Article 12 of the *Paris Agreement* affirms the importance of public participation at all levels and provides that:

"Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement."¹³⁸

The *Agreement* also provides, with reference to SDM, for the incentivising and facilitation of participation towards the mitigation of greenhouse gas emissions by inclusion of public and private entities as authorised by the Parties.¹³⁹ This aims to enhance public and private sector participation in the implementation of the NDCs.¹⁴⁰ In this regard, scholars like Hey emphasise the fact that environmental issues,

¹³¹ Articles 4(16) - 4(17) of the *Paris Agreement* (2015).

¹³² Articles 4(16) - 4(17) of the *Paris Agreement* (2015).

¹³³ *Bodansky 2016 Rev of Eur, Comp and Intern'l L 142.*

¹³⁴ *Bodansky 2016 Rev of Eur, Comp and Intern'l L 142.*

¹³⁵ Preamble of the *Paris Agreement* (2015).

¹³⁶ *Preamble of the Paris Agreement (2015).*

¹³⁷ Preamble of the *Paris Agreement* (2015).

¹³⁸ Article 12 of the *Paris Agreement* (2015).

¹³⁹ Articles 6(4) (b) and 6(8) (b) of the *Paris Agreement* (2015).

¹⁴⁰ Articles 6(4) (b) and 6(8) (b) of the *Paris Agreement* (2015).

including those that relate to climate change mitigation, are best handled with the participation of all concerned citizens at the relevant level.¹⁴¹ Such participation should be guaranteed with appropriate access to information, which is relevant to ensure effective participation.¹⁴²

2.4.3 Monitoring

The monitoring of progress pertaining to implementation of the *Paris Agreement* is one of the key elements that have been highlighted.¹⁴³ Parties to the conference are under an obligation in terms of article 14 to periodically take stock of the implementation of the *Paris Agreement*.¹⁴⁴ This is to be done in a manner that considers mitigation and is comprehensive, facilitative and assesses collectively the progress made towards achieving the objectives of the *Paris Agreement* and its long-term goals.¹⁴⁵ This process has been named the "global stock take".¹⁴⁶ The COP, serving as the meeting of the Parties to this *Agreement*, is mandated to undertake its first global stock take in 2023 and every five years thereafter unless otherwise decided by the COP.¹⁴⁷ The outcome of the global stock take informs the Parties in enhancing and updating, in a nationally determined manner, their actions in accordance with the *Paris Agreement* at the same time enhancing international cooperation for climate action.¹⁴⁸

According to the *Paris Agreement*, the purpose of the framework for transparency of action is to provide a clear understanding of climate change action in the light of the objective of the article 2 of the Convention.¹⁴⁹ This is to be achieved through upholding clarity and tracking of progress towards achieving Parties individual NDCs under article 4.¹⁵⁰ It also includes the prioritisation of good practices, needs and gap identification,

¹⁴¹ Hey Advanced Introduction 83.

¹⁴² Hey Advanced Introduction 83.

¹⁴³ Article 14(1) of the *Paris Agreement* (2015).

¹⁴⁴ Article 14(1) of the *Paris Agreement* (2015).

¹⁴⁵ Article 14(1) of the *Paris Agreement* (2015).

¹⁴⁶ Article 14(1) of the *Paris Agreement* (2015).

¹⁴⁷ Article 14(2) of the *Paris Agreement* (2015).

¹⁴⁸ Article 14(3) of the *Paris Agreement* (2015).

¹⁴⁹ Article 13(5) of the *Paris Agreement* (2015).

¹⁵⁰ Article 13(5) of the *Paris Agreement* (2015).

which inform the global stock take.¹⁵¹ This would be attained through learning from plans, policies and programmes.¹⁵² Before the *Paris Agreement*, there was only a technical paper by the Secretariat which assessed the global aggregate level of mitigation ambition pertaining to the NDCs but with no discussion of individual NDCs.¹⁵³ It was questioned as to whether an international assessment post-Paris should be put in place. More importantly, made to apply to the first implementation period of the *Agreement* which, according to this assignment, led to the establishment of the global stock take as a monitoring tool of the implementation of the *Agreement*.¹⁵⁴

2.5 Conclusion

The purpose of this chapter was to make an analysis of international climate change law through a desktop study. In particular, an analysis has been made of the UNFCCC and its *Kyoto Protocol* as predecessors of the *Paris Agreement*. The purpose is to establish what has been provided for regarding mitigation, public participation, and monitoring. Focus was given to the *Paris Agreement* to establish its provisions in respect of mitigation, public participation, and monitoring which are the focal thematic areas of this dissertation. The above discussion makes evident the fact that though with additional areas of focus, both the *Kyoto Protocol* and the *Paris Agreement* share a common aim and focus on implementing the provisions of the UNFCCC with elements of duplication of some objectives.¹⁵⁵ Of significance in the climate change regime, albeit implemented through a plethora of legal policies, instruments and measures, is the fact that climate change requires policy-making at both international and national level.¹⁵⁶ This should be supported by concurrent policy-making at all spheres of government.¹⁵⁷ In this chapter, a discussion of the mechanisms that have been put in place towards mitigation has also been analysed.¹⁵⁸ This chapter therefore aimed at

¹⁵¹ Article 13(5) of the *Paris Agreement* (2015).

¹⁵² Article 13(5) of the *Paris Agreement* (2015).

¹⁵³ Obergassel *et al* 2015 *Environ L and Manage* 259.

¹⁵⁴ Obergassel *et al* 2015 *Environ L and Manage* 259.

¹⁵⁵ See paras 2.3 and 2.4 above.

¹⁵⁶ See para 2.2 above in general.

¹⁵⁷ See para 2.2 above in general.

¹⁵⁸ See paras 2.3.1 and 2.3.2 above.

analysing international climate change law. This was done with specific reference to the *Paris Agreement*, the preceding UNFCCC and its *Kyoto Protocol*, to establish a foundational basis for the subsequent chapter. Chapter 3 will look into South African climate change laws and policies and establish how the laws and policies attempt to implement and fulfil the provisions of the *Paris Agreement*. The primary themes of mitigation, public participation and monitoring will be discussed inasmuch as South Africa has a mandate to fulfil international climate change instruments.

Chapter 3: South African climate change law and policies

3.1 Introduction

Being a party to both UNFCCC and its *Kyoto Protocol* together with the *Paris Agreement*, South Africa is bound by the provisions of these international instruments which govern the climate change regime.¹⁵⁹ It is therefore obliged to uphold the provisions of these instruments regardless of the fact that it is a non-Annex I country.¹⁶⁰ The 2011 National Development Plan reflects that South Africa emits a high amount of carbon dioxide into the atmosphere and thereby contributes disproportionately to climate change.¹⁶¹ Furthermore, South Africa has the highest GHG emissions on the African continent and is top-ranking within the globe in terms of per capita emissions.¹⁶² This is due to the fact that its economy is among the most carbon intense in the world through generation of energy from fossil fuels.¹⁶³ Significantly, this contributes approximately 79% of the total GHG emissions.¹⁶⁴ This profile positions South Africa at par with industrialised countries such as Japan and in excess of large economies such as the US and China.¹⁶⁵ It is against this background that South Africa seeks to implement and attempt to fulfil the provisions of the *Paris Agreement* and its preceding UNFCCC together with *its Kyoto Protocol* through various legislative provisions and policies, which are subject to analysis in this chapter towards climate change mitigation.

This chapter therefore aims to establish how South Africa is attempting to implement and fulfil the provisions of the *Paris Agreement* and its predecessors (UNFCCC and its *Kyoto Protocol*) as discussed in the previous chapter. The focus will be on mitigation through its climate change law and policies. Using a desktop approach, the writer will

¹⁵⁹ Legora *South Africa's international climate change mitigation* 5.

¹⁶⁰ Legora *South Africa's international climate change mitigation* 5.

¹⁶¹ *National Development Plan* (2011) 140–141; see also Legora *South Africa's international climate change mitigation* 31.

¹⁶² NCCR White Paper (2011) 8

¹⁶³ NCCR White Paper (2011) 8; see also Legora *South Africa's international climate change mitigation* 31.

¹⁶⁴ NCCR White Paper (2011) 8; see also Legora *South Africa's international climate change mitigation* 31.

¹⁶⁵ Gilder and Swanepoel *Environmental Management* 764-765.

carry out an analysis of the various laws and policies that influence climate change, including the 1996 Constitution, the 1998 NEMA, the 2004 *National Environmental Management Air Quality Act*¹⁶⁶ (hereinafter referred to the NEMAQA), the 2010 NCCR *Green Paper*, the 2011 NCCR *White Paper* and the 2018 *Climate Change Bill*. Through this analysis, this chapter aims to establish how climate change mitigation as provided for in the *Paris Agreement*, the UNFCCC and its *Kyoto Protocol* is being implemented and fulfilled through South African climate change laws and policies. The subsequent chapters will then specifically analyse the implementation and fulfilment of public participation and monitoring through South African climate change laws as well.

3.2 Constitution of the Republic of South Africa, 1996

The 1996 Constitution, being the overall legal framework, recognises the environmental right as a bill of rights.¹⁶⁷ It also mandates forums to consider international laws (provisions) when interpreting the bill of rights.¹⁶⁸ The Constitution also imposes a duty on the state to enact legislation to protect the environment.¹⁶⁹ As such, the legislation to be analysed in this chapter aims to fulfil this supreme law.¹⁷⁰ Section 24 of the Constitution provides that:

“Everyone has the right—

- (a) to an environment that is not harmful to their health or wellbeing; 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.”

The effects of climate change have so far proved to be harmful to human health and wellbeing. This has been evidenced by effects such as natural disasters, droughts,

¹⁶⁶ Act 39 of 2004.

¹⁶⁷ Section 24 of the *Constitution of the Republic of South Africa* (1996).

¹⁶⁸ Section 39(1) (b) of the *Constitution of the Republic of South Africa* (1996).

¹⁶⁹ Section 24(b) of the *Constitution of the Republic of South Africa* (1996).

¹⁷⁰ Section 24(b) of the *Constitution of the Republic of South Africa* (1996).

floods leading to homelessness and climate change migration.¹⁷¹ As mandated in the Constitution, the Courts have demonstrated precedents which uphold environmental rights in relation to climate change.¹⁷² In pursuit thereof, the courts stated that by inclusion of the environmental right in the Constitution, it is implied that appropriate recognition should be awarded to these rights in pursuit of just administration.¹⁷³ The Courts have also acknowledged that a response through legislation should be formulated in light of the changes brought about by the climate.¹⁷⁴

In defining sustainable development, scholars like Field, place emphasis on the linkages that should be considered between the environment and human economic and social systems.¹⁷⁵ Kidd further compares these linkages to an analogy of an African 3-legged pot to illustrate the 3 pillars of sustainable development. These are environmental, economic, and social aspects whose activities need to be balanced.¹⁷⁶ In this instance, the balancing should be done towards mitigation, which is the focus of this dissertation, inasmuch as they have impact and influence.¹⁷⁷

The South African Courts following the Constitutional Court considered at great length the nature, characteristics and scope of the concept of sustainable development.¹⁷⁸ This reflects in the upholding of section 24 of the Constitution in the *Fuel Retailers* case, which recognises the interrelationship between development and the environment. Furthermore, the case embraces the need for recognition of socio-economic development and this environmental principle similarly applies to

¹⁷¹ United Nations 2020 <https://www.un.org> 1.

¹⁷² *Director Mineral Development, Gauteng Region v Save the Vaal Environment* 1999 2 All SA 381 (A) 20.

¹⁷³ *Director Mineral Development, Gauteng Region v Save the Vaal Environment* 1999 2 All SA 381 (A) 20.

¹⁷⁴ *Director Mineral Development, Gauteng Region v Save the Vaal Environment* 1999 2 All SA 381 (A) 20.

¹⁷⁵ Field 2006 *SALJ* 409, 414–417; see also LLMO Assignment by Blessing Nyamusamba dated 30 March 2021.

¹⁷⁶ Kidd *Environmental Law* 18

¹⁷⁷ Kidd *Environmental Law* 18; see also LLMO Assignment by Blessing Nyamusamba dated 30 March 2021.

¹⁷⁸ Murombo 2008 *SALJ* 488.

mitigation.¹⁷⁹ According to Strydom, the Court unpacked the concept of sustainable development and indicated that:

“[t]his broad definition of sustainable development incorporates two of the internationally recognised elements of the concept of sustainable development, namely the principle of integration of environmental protection and socio-economic development, and the principle of inter-generational and intra-generational equity.”¹⁸⁰

The Constitution therefore becomes the backbone to the regulatory framework by providing a mandate for the government to enact legislation, which promotes environmental protection.¹⁸¹

3.3 National Environmental Management Act (NEMA)

To ensure effective implementation of section 24 of the Constitution, an environmental legal framework was promulgated and named NEMA, in fulfilment of section 24(b). The purpose in the promulgation of NEMA is, amongst others, to deal with issues of environmental governance through the establishment of principles to assist on matters affecting the environment. Furthermore, NEMA provides that:

“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.”¹⁸²

Climate change has proved to have negative effects, which have threatened the needs of the people in every aspect.¹⁸³ NEMA has been strategically promulgated to assist by putting into place environmental management systems, norms and practices, specific environmental management acts and systems that attempt to bring mitigation of factors that contribute to climate change.

¹⁷⁹ *Fuel Retailers Association of Southern Africa v Director-General: Environmental Management, Department of Agriculture Conservation and Environment, Mpumalanga Province* 2007 6 SA 4 (CC). Spacing is “single” here. But elsewhere not. Fix throughout.

¹⁸⁰ Strydom, King and Retief *Environmental Management* 9.

¹⁸¹ Section 24(b) of the Constitution provides for the promulgation of legislation and policies towards Pollution prevention, ecological degradation, promote conservation, sustainable development and use of Natural resources.

¹⁸² Section 2(2) of NEMA.

¹⁸³ United Nations 2020 <https://www.un.org> 1.

NEMA also gives an outline of principles relating to environmental law, which make the South African environmental laws consistent with international norms and treaties.¹⁸⁴ Further, NEMA provides for international obligations and agreements and the incorporation of these international instruments, including the *Paris Agreement*.¹⁸⁵

The principles in NEMA include sustainable development, environmental justice, the precautionary principle, the preventative principle, the polluter-pays principle, and the duty of care.¹⁸⁶ The principles of intergenerational equity and common, but differentiated responsibility have also been considered in matters relating to climate change mitigation and the same principles are provided for in NEMA.¹⁸⁷ The South African Courts of law have embraced the principles as outlined in NEMA in relation to climate change in a project for the construction of a proposed 1200MW coal-fired power station in the *Earthlife* cases.¹⁸⁸ In this case, the court considered the impact of the project in relation to climate change by making reference to the *Environmental Impact Assessment Regulations* (hereinafter the EIA Regulations).¹⁸⁹ The main purpose of these regulations is to ensure that impacts of any projects (whether positive or negative socio-economic and environmental) are considered towards sustainable development and inter- and intra-generational equity.¹⁹⁰ Hence, due diligence should have been carried out prior to the final authorisation of the proposed activity towards climate change mitigation, amongst other factors.¹⁹¹ This fulfils the provisions of the *Paris Agreement* inasmuch as it also recognises the fact that Parties may be affected not only by climate change but might also be affected by the impact of the measures

¹⁸⁴ Section 2 of NEMA.

¹⁸⁵ Section 25 of NEMA; see also sec 231-233 of the Constitution.

¹⁸⁶ Sections 2(3), 2(4) (c), 2(4) (a)(vii), 2(4)(a)(viii), 2(4)(p) and 2(4)(a)(ii) of NEMA.

¹⁸⁷ Section 2(4) (a)(v) of NEMA; see also the Preamble of the *Paris Agreement* which highlights its cognizance of upholding the equity principle, s 2(4)(n) of NEMA, the *Paris Agreement* in its preamble states that in pursuit of the objective of the Convention (UNFCCC), it is guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

¹⁸⁸ *Earthlife Africa Johannesburg v Minister of Environmental Affairs* 2017, ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017) para 1 (hereinafter referred to as *Earthlife* case).

¹⁸⁹ GN R982 in GG38282 of 8 December 2014; s 24(O)(1) of NEMA also refers to environmental impact assessments prior to approval of projects.

¹⁹⁰ Regulation 2 in GN R982 GG 38282 of 8 December 2014.

¹⁹¹ Regulation 2 in GN R982 GG 38282 of 8 December 2014.

taken in response to climate change.¹⁹² Emphasis is also placed on the intrinsic relationship between climate change actions, responses and impacts, and equitable access, sustainable development and eradication of poverty, amongst other aspects.¹⁹³ In the *Earthlife* case, the consideration of climate change impact was challenged by the authorities in their submission. The authorities raised the fact that there is no provision in South African domestic legislation, regulations or policies that expressly stipulates that a climate change assessment must be conducted before an environmental authorisation is granted.¹⁹⁴ Regardless of this opposition, the Court proceeded to take climate change impacts into consideration and made an order in favor of the undertaking of a climate change impact assessment report.¹⁹⁵ The Court therefore upheld the precautionary principle as outlined in NEMA towards climate change mitigation.¹⁹⁶

3.4 National Environmental Management Air Quality Act (NEMAQA)

Section 24(b) of the Constitution provides that citizens have the right to have the environment protected through reasonable legislative provisions.¹⁹⁷ In pursuit of this provision as upheld in NEMA, the NEMAQA sector-specific piece of legislation was promulgated towards prevention of pollution and ecological degradation.¹⁹⁸

The main objective of NEMAQA is to focus on protecting the environment through the provision of reasonable measures, which are intended to protect and enhance the quality of air in South Africa.¹⁹⁹ It also provides for the prevention of air pollution and ecological degradation, and for the promotion of sustainable development that is ecologically secure towards socio-economic development.²⁰⁰ South Africa's economy,

¹⁹² Preamble of the *Paris Agreement* (2015).

¹⁹³ Preamble of the *Paris Agreement* (2015). Do "single" spacing elsewhere too.

¹⁹⁴ *Earthlife Africa Johannesburg v Minister of Environmental Affairs* 2017, ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017) para 16.

¹⁹⁵ *Earthlife Africa Johannesburg v Minister of Environmental Affairs* 2017, ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017) para 126(3); see also s 2(4) (a)(vii) of NEMA.

¹⁹⁶ *Earthlife Africa Johannesburg v Minister of Environmental Affairs* 2017, ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017) para 126(3); see also s 2(4)(a)(vii) of NEMA.

¹⁹⁷ Section 24(b) of the Constitution.

¹⁹⁸ NEMAQA 2004; see also s 24(b)(i) of the Constitution.

¹⁹⁹ Section 2(a) (i-iii) of NEMAQA 2004.

²⁰⁰ Section 2(a) (i-iii) of NEMAQA 2004.

being energy-intensive and largely fossil-fuel powered, brings significant carbon emission.²⁰¹ NEMAQA was therefore promulgated to fulfil elements of the *Paris Agreement* towards climate change mitigation by regulating air quality and emission of greenhouse gases.²⁰²

Polluted air is a hazard to health and wellbeing and section 24(a) of the Constitution also upholds the right to an environment that is not harmful to health or well-being.²⁰³ This is in alignment with the *Paris Agreement*, which acknowledges that climate change is a common concern of humankind.²⁰⁴ Hence, when Parties take action to address climate change, they ought to promote, respect, and consider their respective obligations relating to human rights and the right to health.²⁰⁵ The Constitution also provides a supporting structure, which gives functional areas of concurrent national and provincial legislative competence. These functional areas list pollution control as part of the areas that are within their parameters to regulate, thereby making the implementation of NEMAQA more effective.²⁰⁶ Though NEMAQA does not use the terminology "climate change", it makes reference to similar elements relating to climate change by defining GHG as:

"... gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation and includes carbon dioxide, methane and nitrous oxide."²⁰⁷

NEMAQA also emphasises that pollution must be minimised through vigorous control, cleaner technologies and cleaner production practices towards ensuring that air quality is improved.²⁰⁸

NEMAQA also gives the Minister an obligation to ensure the publication of a list of activities that may result in atmospheric emissions and negatively affect the

²⁰¹ Kidd *Environmental Law* 308.

²⁰² Author's contribution.

²⁰³ Section 24(a) of Constitution.

²⁰⁴ *Preamble of the Paris Agreement (2015)*.

²⁰⁵ Preamble of the *Paris Agreement (2015)*.

²⁰⁶ Schedule 4A of the Constitution as read with s 156 of the same Constitution.

²⁰⁷ Legora *South Africa's international climate change mitigation* 41; see also s 1 of the NEMAQA (2004).

²⁰⁸ Preamble of the NEMAQA (2004).

environment.²⁰⁹ Furthermore, it provides that any person who wishes to commence with a listed activity must obtain an atmospheric emission license.²¹⁰ In a bid to bring mitigation and regulating of the GHG emissions into the atmosphere into activities leading to climate change, NEMAQA provides that the contents of the atmospheric emission licenses must include the GHG emission measurements and reporting requirements.²¹¹ NEMAQA also empowers the Minister to declare any substance a priority air pollutant, including declaring GHG as priority air pollutants.²¹² The Act also requires that persons who fall within the category specified in the notice shall prepare and ensure submission to the Minister for approval and implementation, their pollution prevention plans in respect of any substances that are declared as a priority air pollutant.²¹³

Subsequent to the provisions of NEMAQA, the Minister had established the *National Framework for Air Quality Management* (hereinafter referred to as NFAQM) in the Republic of South Africa in 2007.²¹⁴ The NFAQM is reviewed in five-yearly periods. It provides for norms and standards in relation to air quality, and recognizes the South African Air Quality Information System (SAAQIS), which presents real-time ambient air quality monitoring information.²¹⁵ However, although the NFAQM explicitly refers to both climate change and GHG, it does not define either term.²¹⁶

3.5 National Climate Change Response Green Paper (2010)

In 2010, the *National Climate Change Response Green Paper*, which acknowledges the UNFCCC negotiations, was published.²¹⁷ Its main objective is to make a fair contribution to the global effort to achieve the stabilisation of GHG concentrations at

²⁰⁹ Section 21(1) of the NEMAQA (2004).

²¹⁰ Section 22(1) of the NEMAQA (2004).

²¹¹ Section 43(1) (l) of the NEMAQA (2004).

²¹² Section 29(1) of the NEMAQA (2004).

²¹³ Section 29(1) (b) of the NEMAQA (2004).

²¹⁴ Section 7(1) of the NEMAQA (2004); GN R1138 in GG 30284 of 11 September 2007.

²¹⁵ Section 7(1) of the NEMAQA (2004) (5) (d).

²¹⁶ Paragraph 2.4.1 of GN R1138 in GG 30284 of 11 September 2007; see also Legora *South Africa's international climate change mitigation* 42.

²¹⁷ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf.

a level that prevents dangerous anthropogenic interference with the climate system.²¹⁸ The *Green Paper* also aims to ensure the protection of the country and its people from the impacts of the unavoidable climate change.²¹⁹ Strategically, the *Green Paper* took into account a balanced approach to both climate change mitigation and adaptation responses in terms of prioritisation, focus, action, and resource allocation.²²⁰ Specifically with reference to climate change mitigation, which is key to this research, the *Green Paper* provides for the prioritisation of mitigation interventions that significantly contribute to a peak, plateau, and decline emission trajectory.²²¹ In this trajectory, greenhouse gas emissions peak in 2020 and 2025 is estimated at 34% and 42% respectively. These figures are below business-as-usual baseline.²²² A plateau would then be maintained to 2035 and emissions would begin declining in absolute terms from 2036 onwards. This will arguably be achieved with particular mitigation interventions within the energy, transport, and industrial sectors.²²³ The *Green Paper* upholds sustainable development in its approach to mitigation strategies.²²⁴ It provides for the prioritisation of mitigation interventions that have potential for positive job creation, poverty alleviation and/or general economic impacts. These interventions can stimulate new industrial activities, improve efficiency, and create competitive advantages for existing business and industry.²²⁵

Further in its strategies, the *Green Paper* acknowledges the fact that, due to the energy-intensive nature of the South African economy, the mitigation of greenhouse gases is not an easy or cheap task. As such, the government ought to support and

²¹⁸ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf.

²¹⁹ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf.

²²⁰ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf reg 4.

²²¹ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf reg 4.

²²² DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf reg 4.

²²³ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf reg 4.

²²⁴ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf reg 4.

²²⁵ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechange_response_0.pdf reg 4.

facilitate the mitigation plans, particularly of the energy, transport, and industrial sectors.²²⁶ The *Green Paper* also provides for public participation and monitoring, which will be discussed in detail in chapters 4 and 5 respectively.

3.6 National Climate Change Response White Paper (2011)

Subsequent to the *Green Paper*, the 19th of October 2011 saw the Department of Environmental Affairs (DEA) publishing the 2011 *White Paper* on NCCR, in which it highlighted the transitioning of South Africa to a climate-resilient and lower-carbon economy and society.²²⁷ This is a long-term plan that embodies South Africa's commitment to, namely (1) a fair contribution to stabilising global GHG concentrations in the atmosphere towards mitigation and (2) protecting the country and its people from the impacts of inevitable climate change.²²⁸ According to the *White Paper*, responses to climate change have been commonly categorised as aiming at, amongst other things, a reduction in the rate at which the climate is changing to levels that occur naturally.²²⁹ This is particularly so by reducing the atmospheric concentrations of GHGs, referred to as "mitigation".²³⁰ This provision aligns with article 4 of the *Paris Agreement* and the preceding UNFCCC together with its *Kyoto Protocol*.

South Africa communicated its *Paris Agreement* undertakings through the NCCR and its NDCs to the United Nations Convention on Combating Climate Change secretariat.²³¹ In the NDC, South Africa demonstrated ambitious goals which are subject to implementation and fulfilment in line with the CBDR-RC principle as a nation.²³² Amongst its key ambitions, South Africa raised the mitigation component of its NDCs indicating its intention to move from a "deviation from business-as-usual" form of commitment and taking the form of a peak, plateau and decline to the GHG

²²⁶ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 4.

²²⁷ NCCR White Paper (2011) 10.

²²⁸ NCCR White Paper (2011) 10.

²²⁹ NCCR White Paper (2011) 13.

²³⁰ NCCR White Paper (2011) 13.

²³¹ NCCR White Paper (2011) 10. DEA date unknown <https://www.gwp.org>. The NDCs also fulfil a 4(2) of the *Paris Agreement* (2015).

²³² Article 4.3 of the *Paris Agreement* (2015).

emissions trajectory range.²³³ This ambition was also provided for in the *Green Paper* and it envisages a South Africa with reduced emissions by 2025 and 2030 (plateau for approximately a decade and decline in absolute terms thereafter), which ranges between 398 and 614 Mt CO₂-eq, as defined in national policy.²³⁴ To achieve the ambition, prioritised cost-effective and beneficial mitigation policies, legislation, measures, strategies, and interventions would be put in place as strategic priorities.²³⁵

The NDCs, which continue to be updated, reflect the intention to achieve this trajectory range towards climate change mitigation.²³⁶ South Africa remains guided by the principles of CBDR-RC (as discussed in detail under the *Paris Agreement*), that is equity, Intra- and Inter-generational sustainability, precautionary and polluter pays, economic, social and ecological pillars of sustainable development.²³⁷ These principles are derived from the provisions outlined in the Constitution, NEMA, the UNFCCC and its *Kyoto Protocol* in which the main objective of the *Paris Agreement* is to ensure its implementation.²³⁸ The NDCs as tabled for updating remain consistent with the principles and provisions of the *Paris Agreement*, the UNFCCC and its *Kyoto Protocol*.²³⁹ This is in pursuit of the objectives outlined in the Convention, to ensure and maintain guidance by its principles.²⁴⁰

In its NCCR, South Africa acknowledges that:

“The stabilisation of GHG concentrations in the atmosphere at a level that prevents dangerous interference with the climate system requires the implementation of a sufficiently ambitious and effective global agreement on GHG emission reductions. In this context, as a responsible global citizen, and in keeping with its developing country status, its capability and its share of responsibility for the problem, South Africa is committed to making a fair contribution to the global effort to reduce GHG emissions. At the same time the country must ensure that the necessary climate change-related investments contribute to building economic growth and contribute to its over-riding

²³³ UN date unknown <https://www4.unfccc.int> See also NCCR White Paper (2011) 25/27.

²³⁴ UN date unknown <https://www4.unfccc.int> See also NCCR White Paper (2011) 25/27.

²³⁵ NCCR White Paper (2011) 14.

²³⁶ DEA 2021 <https://www.environment.gov.za>.

²³⁷ NCCR White Paper (2011) 12; see also Preamble of the *Paris Agreement* (2015).

²³⁸ NCCR White Paper (2011) 12; see also Preamble of the *Paris Agreement* (2015).

²³⁹ Preamble to the *Paris Agreement*; see also the draft NDCs tabled for updating DEA 2021 <https://www.environment.gov.za> 2.

²⁴⁰ Preamble to the *Paris Agreement*; see also the draft NDCs tabled for updating DEA 2021 <https://www.environment.gov.za> 2.

national priorities for sustainable development, job creation, improving public and environmental health and poverty eradication."²⁴¹

For South Africa, climate change mitigation, which is the main focus of this research, is regarded as a "national priority".²⁴² Being a party under the UNFCCC and its *Kyoto Protocol*, which the *Paris Agreement* (2015) aims to implement, the government has committed to contribute to global GHG mitigation efforts by maintaining the temperature increase below 2°C.²⁴³

An overall approach has been adopted in the NCCR by identifying seven key elements to climate change mitigation.²⁴⁴ These elements are, namely (1) setting the performance benchmark, (2) defining carbon budgets for significant GHG-emitting sectors and/or subsectors, (3) identifying desired sectoral mitigation contributions, (4) use of diverse mitigation approaches and (5) mitigation plans, policies, measures and actions, (6) using the market, and (7) monitoring and evaluation.²⁴⁵

In terms of setting the performance benchmark towards mitigation, the NCCR strategy intends to use the National GHG Emissions Trajectory Range, against which the collective outcome of all mitigation actions will be measured.²⁴⁶ Further identification of desired sectoral mitigation contributions would be put in place.²⁴⁷ This will be done to define the desired emission reduction outcomes for each sector and sub-sector that contributes to GHG emissions of the economy.²⁴⁸ This would be achieved through an in-depth assessment of the mitigation potential, best available mitigation options, science, evidence and a full assessment of the costs and benefits.²⁴⁹

In defining carbon budgets for significant GHG-emitting sectors and/or sub-sectors, the NCCR adopts a carbon budget approach to provide for flexibility and least-cost

²⁴¹ NCCR White Paper (2011) 10.

²⁴² NCCR White Paper (2011) 10.

²⁴³ NCCR White Paper (2011) 10. This ambition also aligns with a 2(a) of the *Paris Agreement* (2015).

²⁴⁴ NCCR White Paper (2011) 25-26.

²⁴⁵ NCCR White Paper (2011) 25-26.

²⁴⁶ NCCR White Paper (2011) 6.1.1.

²⁴⁷ NCCR White Paper (2011) 6.1.2.

²⁴⁸ NCCR White Paper (2011) 6.1.2.

²⁴⁹ NCCR White Paper (2011) 6.1.2.

mechanisms for companies in relevant sectors and/or sub-sectors.²⁵⁰ Such company policies will be revised, based on monitoring and evaluation results, technological advances or new science, evidence, information and a mechanism and process to translate the carbon budgets for each relevant sector into company-level desired emission reduction outcomes.²⁵¹ The NCCR also recognized Mitigation Plans as a strategic element.²⁵² It requires companies and economic sectors or sub-sectors whose desired emission reduction outcomes have been established, to prepare and submit mitigation plans.²⁵³ These mitigation plans set out how the companies intend to achieve the desired emission reduction outcomes.²⁵⁴

The NCCR further recognises the benefit of developing and implementing a wide range of mitigation approaches, policies, measures, and actions that optimise the mitigation outcomes.²⁵⁵ More importantly, the creation of jobs and other sustainable developmental benefits.²⁵⁶ This is meant to contribute towards achieving the defined desired emission reduction outcomes for sectors of the economy. This is done by ensuring that actions are specifically tailored to the best available solutions and other relevant conditions related to the concerned organisation.²⁵⁷ The use of the market is amongst the strategic elements adopted towards mitigation, through the process of deploying a range of economic instruments to support the system of desired emissions reduction outcomes.²⁵⁸ This includes the appropriate pricing of carbon and economic incentives, and possible use of emissions offset or emission-reduction trading mechanisms for those relevant sectors.²⁵⁹ Monitoring and evaluation through the establishment of a national data collection system to provide detailed, complete, accurate, and up-to-date emissions data in the form of a Greenhouse Gas Inventory

²⁵⁰ NCCR White Paper (2011) 6.1.3.

²⁵¹ NCCR White Paper (2011) 6.1.3.

²⁵² NCCR White Paper (2011) 6.1.4.

²⁵³ NCCR White Paper (2011) 6.1.4.

²⁵⁴ NCCR White Paper (2011) 6.1.4.

²⁵⁵ NCCR White Paper (2011) 6.1.5.

²⁵⁶ NCCR White Paper (2011) 6.1.5.

²⁵⁷ NCCR White Paper (2011) 6.1.5.

²⁵⁸ NCCR White Paper (2011) 6.1.6.

²⁵⁹ NCCR White Paper (2011) 6.1.6.

and an M&E System has also been put in place.²⁶⁰ The purpose is to support the analysis of the impact of mitigation measures together with a proposed climate change response monitoring and evaluation system.²⁶¹ Furthermore, the *White Paper* on the renewable energy policy also highlights that South Africa has documented a pledge towards climate change mitigation in support of renewable energy and the increased use of clean coal technologies.²⁶² This is in light of the fact that coal remains the largest currently available indigenous energy resource.²⁶³

3.7 Climate Change Bill of 2018

2018 saw South Africa promulgating the *Climate Change Bill*, which was meant to build an effective climate change response. In the long-term, the Bill is meant to ensure a just transition to a climate-resilient and lower carbon economy and society based on an environmentally sustainable development framework.²⁶⁴ This Bill contributes towards fulfilling section 24 of the Constitution and article 4 of the *Paris Agreement*.

It is of paramount importance to take note that the *Climate Change Bill* was promulgated after the *Paris Agreement* (2015). As such, it manifests and reflects as a mirror of South Africa's position and objectives when it comes to the *Paris Agreement*.²⁶⁵ The Bill acknowledges that South Africa is an emitter of greenhouse gases, that have been identified by the international community as the primary drivers of anthropogenic climate change, against which the implementation of appropriate mitigation measures is required.²⁶⁶ A commitment has therefore been made internationally to implement and communicate an effective nationally determined

²⁶⁰ NCCR White Paper (2011) 6.1.7.

²⁶¹ NCCR White Paper (2011) 6.1.7.

²⁶² Department of Minerals and Energy 2003 https://unfccc.int/files/meetings/seminar/application/pdf/sem_sup1_south_africa.pdf; see also Kidd *Environmental Law* 2011, 312.

²⁶³ Department of Minerals and Energy 2003 https://unfccc.int/files/meetings/seminar/application/pdf/sem_sup1_south_africa.pdf; see also Kidd *Environmental Law* 2011, 312.

²⁶⁴ *Climate Change Bill* (2018). This acknowledgement fulfils a 4 of the *Paris Agreement* (2015) which provides for climate change mitigation.

²⁶⁵ Part (a) of the Preamble of the *Climate Change Bill* (2018).

²⁶⁶ Part (a) of the Preamble of the *Climate Change Bill* (2018).

climate change response that reflects the mitigation actions. It thus represents the Republic's fair contribution to the global climate change response.²⁶⁷

The Republic aims to support a just transition to a climate-resilient society, towards attempting to implement an effective national climate change response, as set out in the NCCR and South Africa's NDCs.²⁶⁸ These were communicated to the United Nations Convention on Combating Climate Change secretariat in terms of its *Paris Agreement*.²⁶⁹ The Bill envisages an equitable and internationally competitive lower-carbon economy and society that takes into account the employment, economic, and societal opportunities and risks that are expected to manifest as a consequence of implementation of the national climate change response, which is intended to uphold sustainable development.²⁷⁰

Participation by the provincial and municipal spheres towards achieving the objectives of the Bill is recognised.²⁷¹ The main objectives of the Bill remain the building of social, economic, and environmental resilience in the context of the global climate change response and the making of fair contributions to the global effort to stabilise greenhouse gas concentrations in a sustainable manner.²⁷² In outlining its provisions, the Bill anchors on the principles of environmental governance outlined in section 2 of NEMA.²⁷³ The Bill acknowledges that the climate system should be protected for the benefit of present and future generations of humankind. Furthermore, the Bills upholds international equity and the CBDR-RC principle in light of different national circumstances towards a sustainable and just transition.²⁷⁴ In the event of conflict with

²⁶⁷ Part (c) of the Preamble of the *Climate Change Bill* (2018).

²⁶⁸ Part (b) of the Preamble of the *Climate Change Bill* (2018) and the Preamble of the *Paris Agreement* (2015).

²⁶⁹ Part (b) of the Preamble of the *Climate Change Bill* (2018) and the Preamble of the *Paris Agreement* (2015).

²⁷⁰ Part (b) of the Preamble of the *Climate Change Bill* (2018). The Preamble of the *Paris Agreement* (2015) also recognises sustainable lifestyles and sustainable patterns of consumption and production.

²⁷¹ Section 2(a) of the *Climate Change Bill* (2018).

²⁷² Sections 2(b) and 2(c) of the *Climate Change Bill* (2018).

²⁷³ Sections 2(b) and 2(c) of the *Climate Change Bill* (2018).

²⁷⁴ Section 3(a-d) of the *Climate Change Bill* (2018). The same principles are also outlined in the *Paris Agreement* (2015). The CBDR principle is also discussed in detail in Chapter 2 of this dissertation.

other legislation in issues relating to climate change, the Bill prevails.²⁷⁵ Provision has also been made which calls for organs of state to coordinate, align and bring harmony to laws and policies at all spheres of government. The aim is to ensure that the risks relating to climate change impacts and associated vulnerabilities are considered and give effect to the national mitigation objectives lined up in the Act.²⁷⁶

According to the Bill, climate change response implementation plans should be formulated, including measures or programmes relating to mitigation.²⁷⁷ The national greenhouse gas emissions trajectory as outlined in the NCCRP also binds all organs of state in all spheres of Government.²⁷⁸ In terms of Sectoral Emissions Targets (hereinafter referred to as SETs), the Minister will determine these every five years to address best available science and mitigation options.²⁷⁹ These SETs must be included in government planning cycles and with monitored implementation and reports to the Presidency, towards ensuring that the NCCR and the Bill are properly and coherently implemented across government.²⁸⁰

Section 13 of the *Climate Change Bill* gives the Minister an obligation to determine greenhouse gas emissions threshold to be able to determine persons who will be allocated a carbon budget, which must be complied with.²⁸¹ The Minister is also obliged to ensure the proper implementation of the approved greenhouse gas mitigation plan. The implementation of the plan must be in accordance with the methodology outlined in the approved greenhouse gas emissions plan.²⁸² The Bill makes it an offence for failure to submit a greenhouse gas mitigation plan, or the exceeding of the prescribed greenhouse gas emissions allowance, which attracts a substantial fine or imprisonment or both.²⁸³

²⁷⁵ Section 5 of the *Climate Change Bill* (2018).

²⁷⁶ Section 7 of the *Climate Change Bill* (2018).

²⁷⁷ Sections 9(1) (b) - (2) of the *Climate Change Bill* (2018).

²⁷⁸ Section 11(2) of the *Climate Change Bill* (2018).

²⁷⁹ Section 12(1) (a) of the *Climate Change Bill* (2018).

²⁸⁰ Section 12(6) of the *Climate Change Bill* (2018).

²⁸¹ Section 13(1) of the *Climate Change Bill* (2018).

²⁸² Section 13(9) (a-b) of the *Climate Change Bill* (2018).

²⁸³ Sections 19(1) (a-b) - (2) of the *Climate Change Bill* (2018).

3.8 Conclusion

Though most of the South African legislation was promulgated before the *Paris Agreement*, it is clear that South African laws and policies were influenced by the predecessor to the *Paris Agreement* (the UNFCCC and its *Kyoto Protocol*) to which the *Paris Agreement* seeks to implement.²⁸⁴ Regardless of the fact that some legislative provisions might not have specifically made reference to climate change, South Africa has adopted such legislation in the interest of climate change mitigation.²⁸⁵ The purpose of this chapter was therefore to expound on and establish how South Africa is implementing and fulfilling the *Paris Agreement* in respect of mitigation through its climate change law and policies. An analysis has been made of the 1996 Constitution, the 1998 NEMA, the 2004 NEMAQA, the 2010 NCCR *Green Paper*, the 2011 NCCR *White Paper* and the 2018 *Climate Change Bill*, in an effort to establish the aforementioned aim of this chapter towards establishing how climate change mitigation has been fulfilled and implemented through South African climate change laws and policies.

In the next chapter, the research then proceeds to examine how the *Paris Agreement* and the UNFCCC and its *Kyoto Protocol* have been implemented and fulfilled in South Africa in respect of public participation as a principle through South African climate change laws and policies towards mitigation.

²⁸⁴ See Chapter 3 laws and policies in general.

²⁸⁵ See the discussion on NEMAQA para 3.4 above.

Chapter 4: Public participation as a principle in South African climate change law

4.1 Introduction

Public participation is defined as a voluntary process whereby people, individually or through organized groups, can exchange information, express opinions, articulate interests, and have the potential to influence decisions or the outcome of the matter at hand.²⁸⁶ It is a process that is inclusive, voluntary, may be used as a complement to legal requirements and is assumed to be fair, transparent and based on good faith from participants.²⁸⁷ However, it does not guarantee or predetermine what the outcome will be though the input of the public is given consideration.²⁸⁸ According to a South African guide on matters relating to public service and implementation, when departments draft their public participation guides, they should examine the overall national legislation, as well as their specific mandates and other sector-specific legislation that obligate them to integrate public participation into their work.²⁸⁹

Section 195(1) (e) of the 1996 Constitution states that "people's needs must be responded to, and the public must be encouraged to participate in policy-making".²⁹⁰ Hence this far-reaching statement alone puts a huge obligation on the state to ensure that members of the public are not left out of the policy formulation and implementation processes.²⁹¹ The benefits of public participation, which include improving the quality and legitimacy of decisions made by executive authorities and public officials regarding policy that affect or might affect communities and affording diverse interest groups the opportunity to have a say in crucial matters affecting their lives, makes public participation key to effective implementation of policies.²⁹² The climate change mitigation regime is a fairly new concept and its effective

²⁸⁶ DPSA *Guide on Public Participation in the Public Service* 10.

²⁸⁷ DPSA *Guide on Public Participation in the Public Service* 5.2.9.

²⁸⁸ DPSA *Guide on Public Participation in the Public Service* 5.2.9.

²⁸⁹ DPSA *Guide on Public Participation in the Public Service* 10.

²⁹⁰ DPSA *Guide on Public Participation in the Public Service* 7.1.1(a).

²⁹¹ DPSA *Guide on Public Participation in the Public Service* 7.1.1(a).

²⁹² DPSA *Guide on Public Participation in the Public Service* 8.4.3.

implementation will undoubtedly optimise its capacity through public participation.²⁹³ The effects of climate change as outlined in the first chapter of this dissertation affect the public.²⁹⁴ As such the laws, policies and strategies that are put in place towards mitigation should be inclusive of public participation as far as the public's livelihoods are concerned.²⁹⁵

In light of the above introduction to public participation and in consideration of the complexity of the climate change concept, this chapter aims to analyse the fulfilment of the provisions of the *Paris Agreement* and the UNFCCC and its *Kyoto Protocol*. The analysis is done in relation to public participation as a theme through South African climate change laws and policies. This is for the purpose of establishing to what extent the principle of public participation as crystallised in the *Paris Agreement* is reflected in South African climate change laws and policies. An analysis will be carried out of the 1998 NEMA, the 2014 EIA Regulations, the 2004 NEMAQA and its Framework, the 2010 NCCR *Green Paper*, the 2011 NCCR *White Paper* and the 2018 *Climate Change Bill*. Reference will be made where necessary to decisions made in the South African Courts towards upholding the principle of public participation in respect of climate change laws and policies towards mitigation.

4.2 *Paris Agreement and public participation*

The *Paris Agreement* provides for effective and meaningful participation by the public as a strategic tool, which needs to be adopted and the preamble and article 12 of the *Paris Agreement* affirm the importance of meaningful public participation at all levels.²⁹⁶ Article 12 provides that Parties should cooperate and take appropriate measures to enhance climate change education, training, public awareness, and access to information.²⁹⁷ All these attributes contribute towards effective and meaningful public participation to ensure fulfilment of the

²⁹³ Lee *et al* 2013 *J Env'tl L* 33.

²⁹⁴ Author's assessment.

²⁹⁵ Author's assessment.

²⁹⁶ Preamble and section 12 *Paris Agreement* (2015).

²⁹⁷ Article 12 of the *Paris Agreement* (2015).

Agreement.²⁹⁸ According to Hey, environmental issues that are inclusive of climate change, are best handled with participation of all concerned citizens, at the relevant level with appropriate access to information relevant towards effective participation.²⁹⁹

The UNFCCC and its *Kyoto Protocol*, which preceded the *Paris Agreement* also provide for public participation.³⁰⁰ Specifically, the UNFCCC provides for education, training and public awareness towards ensuring effective public participation in climate change mitigation.³⁰¹ Parties to the UNFCCC are also obliged to promote and facilitate within their respective capacities, the development and implementation of educational and public awareness programmes on climate change and its effects.³⁰² Furthermore, the UNFCCC provides that Parties should promote public participation in addressing climate change and its effects and developing adequate responses.³⁰³ Particularly for developing countries, the UNFCCC obliges the parties to develop and implement education and training programmes and strengthen national institutions to ensure effective public participation.³⁰⁴

The *Kyoto Protocol* also allows Parties to the UNFCCC who are not Parties to the *Protocol* to participate as observers in the proceedings of the Conference of the Parties.³⁰⁵ Non-parties may also participate as observers in sessions of subsidiary bodies.³⁰⁶ Similar with the UNFCCC, the *Kyoto Protocol* also obliges the training of experts in the field of climate change, particularly in developing countries, and facilitation of public awareness and access to information on climate change at the national level.³⁰⁷

²⁹⁸ Article 12 of the *Paris Agreement* (2015).

²⁹⁹ Hey *Advanced Introduction* 83.

³⁰⁰ Article 6 of the UNFCCC (1992) and Article 13(2) of the *Kyoto Protocol* (1997).

³⁰¹ Article 6 of the UNFCCC (1992).

³⁰² Article 6(a) (ii) of the UNFCCC (1992).

³⁰³ Article 6(a) (iii) of the UNFCCC (1992).

³⁰⁴ Article 6(b) (ii) of the UNFCCC (1992).

³⁰⁵ Article 13(2) of the *Kyoto Protocol* (1997).

³⁰⁶ Article 15(2) of the *Kyoto Protocol* (1997).

³⁰⁷ Article 10(e) of the *Kyoto Protocol* (1997).

As such, public participation coupled with access to information is of paramount importance towards successful implementation of the *Paris Agreement* and the UNFCCC and its *Kyoto Protocol*. Hence, South Africa incorporated these provisions in its Constitution. Scholars have also upheld the principle of public participation as strategic towards implementation of climate change policies including the *Paris Agreement*.³⁰⁸ Citing the Aarhus Convention of the United Nations, which upholds the principle of public participation, Perlaviciute and Squintani emphasise that climate policies require public support and should include public preferences to encourage the public to participate.³⁰⁹ Legal frameworks ought to be in harmony with how and when people want to participate in order to establish a union between such frameworks, public preferences and socially acceptable climate policies.³¹⁰ Early and meaningful participation has also been echoed in the Aarhus Convention.³¹¹ The convention does so by mandating "reasonable time-frames" to inform the public and to allow for a response, at a time when "all options are possible" and participation can be "effective".³¹² The Convention mandates responsible authorities to "take the views" expressed by the public "into account".³¹³

It has been argued that international environmental law is traditionally designed for states and the incorporation and implementation of public participation is subject to scrutiny.³¹⁴ It is further argued that the principles upon which international environmental law is constructed are essentially state-centered, such as the principle of state sovereignty, the principle of sustainable development, and the obligation not to cause environmental harm.³¹⁵ It is for these reasons that the degree to which the incorporation of public participation as an acceptable concept

³⁰⁸ Perlaviciute and Squintani 2020 *One Earth* 341-348.

³⁰⁹ Perlaviciute and Squintani 2020 *One Earth* 341; see also the *United Nations, Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* (Aarhus, Denmark, 25 June 1998, UN Treaty Series 2161) 447.

³¹⁰ Perlaviciute and Squintani 2020 *One Earth* 341.

³¹¹ Perlaviciute and Squintani 2020 *One Earth* 342.

³¹² Perlaviciute and Squintani 2020 *One Earth* 342.

³¹³ Perlaviciute and Squintani 2020 *One Earth* 342.

³¹⁴ Bekhoven 2016 *Nat'l Taiwan ULJ* 219.

³¹⁵ Bekhoven 2016 *Nat'l Taiwan ULJ* 222.

in international environmental law and its successful implementation is key to climate change mitigation.³¹⁶ According to Bekhoven, the Rio declaration gives an outline of the principle of public participation and brings out important elements of public participation.³¹⁷ These elements are participation in decision-making processes on environmental issues, access to environmental information and access to administrative and judicial proceedings.³¹⁸

In pursuit of the above international provisions and scholarly contributions in respect of public participation, the Constitution provides as a Bill of Right the access to information.³¹⁹ It provides that everyone has the right of access to information that is held by another person, which is required for the exercise or protection of any rights.³²⁰ In this instance, protection of environmental rights in relation to climate change to enhance informed public participation.³²¹ This constitutional provision has therefore influenced the promulgation of various legislations, which incorporate public participation as a principle towards environmental protection. The following discussion makes an analysis of these legislations.

4.3 National Environmental Management Act (NEMA)

NEMA is the main legislative framework that provides for environment related issues promulgated through the Constitution.³²² It emphasises amongst its principles that the participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation.³²³ This

³¹⁶ Bekhoven 2016 *Nat'l Taiwan ULJ* 222.

³¹⁷ Bekhoven 2016 *Nat'l Taiwan ULJ* 228; see also *United Nations Conference on Environment and Development, Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I).

³¹⁸ Bekhoven 2016 *Nat'l Taiwan ULJ* 227.

³¹⁹ Sections 32, 32(1)-(1) (b) of the Constitution.

³²⁰ *Sections 32, 32(1)-(1)(b) of the Constitution.*

³²¹ Sections 32, 32(1)-(1)(b) of the Constitution.

³²² Section 24 of the Constitution.

³²³ Section 2(4) (f) of NEMA.

makes participation an important part of environment-related components, including climate change mitigation.³²⁴

Section 25 of NEMA provides for the incorporation of international environmental instruments.³²⁵ It provides that the Minister may introduce legislation in Parliament or make such regulations as may be necessary towards giving effect to an international environmental instrument, in this instance the *Paris Agreement*, to which the Republic is a party.³²⁶ Such legislation and regulations may deal with, *inter alia*, initiatives and steps regarding research, education, training, awareness-raising and capacity building towards ensuring public participation.³²⁷ Other scholars also highlight that public participation should also be inclusive of three general functional categories classified as education/information, review/reaction, and interaction/dialogue to ensure meaningful participation.³²⁸ It is a matter of concern that often laws and policies of many countries, including South Africa, incorporate and emphasise the need for public participation. However, this is done without providing meaningful tools, methods or processes for the practical achievement of such participation.³²⁹

Expounding on the contents of NEMA, Kidd emphasises the importance of public participation in decision-making, access to information and access to justice.³³⁰ Public participation in administrative and legislative decision-making is important inasmuch as it leads to more informed decision-making and inspires public confidence.³³¹ Moreso, public participation has been argued to be proactive, allowing possible detrimental administrative conduct to be forestalled rather than challenged *ex post facto* through processes like judicial review.³³² The enhancing of public participation through access to environmental information is also a vital cornerstone, which ensures that people are

³²⁴ Author's assessment.

³²⁵ *Section 25 of NEMA*.

³²⁶ *Section 25 of NEMA*.

³²⁷ *Section 25(3)(e-f) of NEMA*.

³²⁸ Du Plessis 2008 *PELJ* 7.

³²⁹ Du Plessis 2008 *PELJ* 8.

³³⁰ Kidd 1999 *SAJELP* 22, 26-27.

³³¹ Kidd 1999 *SAJELP* 22.

³³² Kidd 1999 *SAJELP* 22.

well informed of issues relating to the environment, to ensure meaningful participation.³³³

Towards upholding access to justice, section 32 of NEMA also provides that a Court may decide not to award costs against a person who litigates in the public interest, or in the interest of protecting the environment.³³⁴ This provision has been qualified as important as far as it aims at addressing a big disincentive for private individuals who wish to resort to judicial proceedings in order to protect the environment.³³⁵ NEMA also provides for private prosecution, which allows any person to institute and conduct a prosecution for an environmental offence in the interest of the public, or in the interest of protecting the environment.³³⁶

4.3.1 *Environmental Impact Assessment Regulations*³³⁷

Section 24 of NEMA provides for the investigation and diverse impact assessments of the environment, socio-economic conditions and cultural heritage, which should be undertaken prior to the authorisation of an activity towards upholding the objective of integrated environmental management.³³⁸ Following this provision, the EIA Regulations were promulgated, and the main purpose of these regulations is to regulate the procedures and criteria relating to the preparation, evaluation, submission, processing, and decision on, applications for environmental authorisations for the commencement of activities.³³⁹ These activities are subject to environmental impact assessment, in order to mitigate detrimental impacts on the environment, and to optimise positive environmental impacts.³⁴⁰ Murombo emphasises that when it comes to implementation of the EIA Regulations, public participation should be seen to be included in every stage of the assessment processes from the screening, scoping, assessment, reporting, decision making or authorisation to post-authorisation

³³³ Kidd 1999 *SAJELP* 26.

³³⁴ Section 32(2) of NEMA.

³³⁵ Kidd 1999 *SAJELP* 27.

³³⁶ Section 33 of NEMA; see also Kidd 1999 *SAJELP* 28.

³³⁷ GN R982 in GG 38282 of 8 December 2014.

³³⁸ Section 24(1) of NEMA.

³³⁹ Regulation 2 of GN R982 in GG 38282 of 8 December 2014.

³⁴⁰ Regulation 2 of GN R982 in GG 38282 of 8 December 2014.

monitoring.³⁴¹ These regulations have been considered significantly in the *Earthlife* case, in relation to the submission that coal-related projects initiated for economic development ought to be assessed towards climate change mitigation. As such, at the instance of an organisation representing the public (*Earthlife*), the High Court ordered the respondent authorities to consider obtaining a climate change impact assessment report in its authorisation process, thus recognising public participation towards climate change mitigation.³⁴²

The regulations recognise public participation as key to such assessments.³⁴³ Chapter 6 of the Regulations provides that public participation must give all potential or registered interested and affected Parties, including the competent authority, a period of at least 30 days to submit comments on each of the basic assessment report, environmental management programmes, scoping report, and environmental impact assessment report.³⁴⁴ Furthermore, the public participation process contemplated in this regulation must provide access to all information that reasonably has, or may have the potential to influence any decision with regard to an application unless access to that information is protected by law.³⁴⁵ Such protection must include consultation with all potential or where relevant, registered interested and affected Parties.³⁴⁶

Potential or registered interested and affected Parties, including the competent authority, may be provided with an opportunity to comment on reports and plans.³⁴⁷ The Regulations also provide a public participation process, registration of interested and affected parties, and entitlement to comments by interested and affected parties to be recorded in reports and plans.³⁴⁸ Where a person desires but is unable to access written comments as contemplated above due to a lack of skills to read or write, a disability or any other disadvantage, then reasonable alternative methods of recording

³⁴¹ Murombo "Beyond Public Participation" 11.

³⁴² *Earthlife* case para 126.3.1.

³⁴³ Regulation 40 of GN R982 in GG 38282 of 8 December 2014.

³⁴⁴ Regulation 40 of GN R982 in GG 38282 of 8 December 2014.

³⁴⁵ Regulation 40(2) of GN R982 in GG 38282 of 8 December 2014.

³⁴⁶ Regulation 40(2) (d) of GN R982 in GG 38282 of 8 December 2014.

³⁴⁷ Regulation 40(3) of GN R982 in GG 38282 of 8 December 2014.

³⁴⁸ Regulation 41, 42 and 44 of GN R982 in GG 38282 of 8 December 2014.

comments must be provided for.³⁴⁹ The above analysis of the EIA Regulations regarding the public participation principle goes a long way towards crystallising the objectives of the *Paris Agreement* and the UNFCCC and its *Kyoto Protocol* towards climate change mitigation.³⁵⁰

4.4 South African Courts, climate change and public participation

The principle of participation was also upheld by the South African High Court in the *Earthlife* case. In this case, concerns were raised over the environmental impacts of a decision to authorise the building of a 1200MW coal-fired power station. The applicant was requesting the Minister to make a reconsideration of the authorisation. Murphy J emphasised in reference to *Earthlife* (the applicant), a non-profit organisation that was representing the civil society that:

“Earthlife is a non-profit organisation founded to mobilise civil society around environmental issues and is an interested and affected party ("IAP") as contemplated in section 24(4) (v)(a) of NEMA and is thus entitled to a reasonable opportunity to participate in public information and participation procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment.”³⁵¹

Amongst other considerations, *Earthlife* persuaded the Courts to take into consideration the impacts of the project in relation to climate change. This is in light of the commitments made by the Republic as party to international instruments, including the *Paris Agreement* towards reduction through greenhouse emissions.³⁵² In its submissions, *Earthlife* maintained that the relevant authority was obliged to consider the climate change impacts of the proposed power station before granting authorization.³⁵³ This was not done and *Earthlife* made reference to the South African government's NCCR *White Paper* of 2011.³⁵⁴ *Earthlife* was motivated by a vision that all coal-fired power stations should not be permitted because they contribute to CO2

³⁴⁹ Regulation 44(2) of GN R982 in GG 38282 of 8 December 2014.

³⁵⁰ Author's assessment.

³⁵¹ *Earthlife* case para 3.

³⁵² Author's analysis.

³⁵³ *Earthlife* case para 4.

³⁵⁴ *Earthlife* case para 4.

emissions globally, arguing in favor of climate change mitigation.³⁵⁵ The Courts allowed public participation in this benchmarking case, which considered various elements relating to climate change mitigation, and it was amongst the first judgments to take into consideration the provisions of the *Paris Agreement*.³⁵⁶ The Court also considered that *Earthlife* first became aware of the proposed power station at a later stage.³⁵⁷ It therefore missed the opportunity to make representations on the scoping report towards its rights to participation on behalf of the public.³⁵⁸ The High Court ordered the respondent to consider obtaining a climate change impact assessment report in favor of *Earthlife*, and the comment on these reports from interested and affected parties.³⁵⁹ In this regard, the Court significantly upheld the public participation principle towards climate change mitigation.³⁶⁰

4.5 National Climate Change Response Green Paper (2010)

Though the *Green Paper* does not provide much in terms of public participation, it does however acknowledge that achievement of South Africa's climate change response objective is guided by various principles, including informed participation.³⁶¹ Specifically, the *Green Paper* provides for the enhancement of the understanding of the science of climate change, information streams and technology, for the purpose of ensuring participation by citizens at all levels.³⁶² This is in light of the complexity that follows climate related matters. The participation of all interested and affected parties is further emphasized.³⁶³ The idea that all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective

³⁵⁵ *Earthlife* case para 23.

³⁵⁶ *Earthlife* case paras 28, 29 and 35.

³⁵⁷ *Earthlife* case para 41.

³⁵⁸ *Earthlife* case para 41.

³⁵⁹ *Earthlife* case para 126.3.1.

³⁶⁰ *Earthlife* case para 126.3.1.

³⁶¹ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 3.

³⁶² DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 3.

DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 3.

participation is also emphasised.³⁶⁴ The *Green Paper* also provides for the promotion of participation by vulnerable and disadvantaged persons.³⁶⁵ Cognisance has also been taken of the fact that climate change is an issue for all South Africans and government recognises that the objectives set out in the *Green Paper* can only be fully realised with the full participation of all key stakeholders and civil society organisations.³⁶⁶ This far, the National committee on climate change has been set up to ensure consultation with stakeholders from key sectors which are impacting on climate change.³⁶⁷

4.6 National Climate Change Response White Paper (2011)

According to the 2011 NCCR *White Paper*, the achievement of South Africa's climate change response objective is guided by the principles outlined in the Constitution, the Bill of Rights, the NEMA, and the UNFCCC, which the *Paris Agreement* to implement.³⁶⁸ The principles upheld in the NCCR *White Paper* include, amongst others, informed participation.³⁶⁹ By this means, emphasis is given with regards to enhancement of public awareness, understanding of climate change causes and impacts and ensuring the promotion of participation at all levels.³⁷⁰ The NCCR *White Paper* also gives an outline of strategic priorities to be adopted towards mitigation.³⁷¹ It provides for facilitated behavior change, which calls for the prioritising of incentives and disincentives.³⁷² These include regulatory, economic and fiscal measures to promote behavior change from the public towards a lower-carbon society and economy.³⁷³ This is as far as the public has to embrace and participate towards mitigation and a low carbon economy.³⁷⁴ To achieve this objective, education, training and public awareness

³⁶⁴ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 3.

³⁶⁵ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 3.

³⁶⁶ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 7.5.

³⁶⁷ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 7.5.

³⁶⁸ *National Climate Change Response Paper*, 2011 Chapter 3.

³⁶⁹ *National Climate Change Response Paper*, 2011 12.

³⁷⁰ *National Climate Change Response Paper*, 2011 12.

³⁷¹ *National Climate Change Response Paper*, 2011 14.

³⁷² *National Climate Change Response Paper*, 2011 14-15.

³⁷³ *National Climate Change Response Paper*, 2011 14-15.

³⁷⁴ *National Climate Change Response Paper*, 2011 15.

programmes have been lined up to build the general public's awareness of climate change.³⁷⁵ The purpose is to ensure that the public participates and makes informed choices that contribute to an economy and society that is resilient with regard to climate change mitigation.³⁷⁶

4.7 National Environmental Management Air Quality Act (NEMAQA)

The NEMAQA acknowledges in its preamble that atmospheric emissions of ozone-depleting substances, greenhouse gases and other substances have deleterious effects on the environment, leading to climate change.³⁷⁷ NEMAQA has given recognition to public participation in order to reform the law which regulates quality.³⁷⁸ The reason is to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation.³⁷⁹ The legislation provides for a consultative process to ensure public participation.³⁸⁰ It also provides that prior to exercising any powers in reaction to NEMAQA, the Minister or Member of the Executive Council (MEC) must give notice by inviting members of the public, community or any interested person to submit within 30 days of publication in the *Gazette*, written representations on or objections to the proposed exercise.³⁸¹ The notice must contain sufficient information to enable members of the public to submit meaningful representations, or objections and such representations must be duly considered before the powers concerned are exercised.³⁸²

4.8 National framework for air quality management

2017 saw the promulgation of the *National framework for air quality management* established under section 7(5) of NEMAQA.³⁸³ The framework seeks to achieve the objectives of the NEMAQA, by providing a medium to long-term plan for the practical

³⁷⁵ *National Climate Change Response Paper*, 2011 15.

³⁷⁶ *National Climate Change Response Paper*, 2011 15.

³⁷⁷ Preamble of the NEMAQA 39 of 2004.

³⁷⁸ Introduction of the NEMAQA 39 of 2004.

³⁷⁹ Introduction of the NEMAQA 39 of 2004.

³⁸⁰ Section 56 of the NEMAQA 39 of 2004.

³⁸¹ Section 56 of the NEMAQA 39 of 2004.

³⁸² Section 57 of the NEMAQA 39 of 2004.

³⁸³ *National framework for air quality management* 2017.

implementation of the NEMAQA.³⁸⁴ The Framework provides for tools for the implementation of the Framework. It specifically provides amongst its cross-cutting principles for public participation and takes cognisance of the importance of public participation in decision making relating to air quality.³⁸⁵ Though the South African government acknowledges that it plays a critical role in achieving and maintaining clean air, it embraces the fact that such goals cannot be achieved in isolation.³⁸⁶ Active participation and contributions from individual citizens and citizen groups, towards effective implementation and enforcement of air quality management decisions in the context of the AQA will be paramount.³⁸⁷ The benefits of engaging public participation have also been identified as numerous, including the fact that public participation can bring new and important knowledge to the table, which enhances mediation between conflicting perspectives early in the process of decision making.³⁸⁸ This facilitates more efficient air quality governance, which leads to the strengthening and deepening of democratic practices.³⁸⁹ This also gives effect to the public's constitutional right to an environment conducive to health and well-being through public participation.³⁹⁰

Various concepts and aspects have been recognized towards implementing public participation as a tool.³⁹¹ This includes the promotion of best practices in designing and implementing air quality decision-processes, particularly by all three spheres of government in South Africa.³⁹² Engagement with stakeholder groups and citizens has been identified as one of the best practices towards reaping the full benefits of public participation.³⁹³ Experience has however revealed that a "one-size-fits-all" approach is not always effective and efficient when it comes to public participation. Hence, an innovative and flexible approach should be considered.³⁹⁴

³⁸⁴ Regulation 1.3 of the *National framework for air quality management 2017*.

³⁸⁵ Chapter 5 and reg 5.9.1 of the *National Framework for Air Quality Management 2017*.

³⁸⁶ Regulation 5.9.1.1 of the *National Framework for Air Quality Management 2017*.

³⁸⁷ Regulation 5.9.1.1 of the *National Framework for Air Quality Management 2017*.

³⁸⁸ Regulation 5.9.1.1 of the *National Framework for Air Quality Management 2017*.

³⁸⁹ *Regulation 5.9.1.1 of the National Framework for Air Quality Management 2017*.

³⁹⁰ Regulation 5.9.1.1 of the *National Framework for Air Quality Management 2017*.

³⁹¹ Regulation 5.9.1.2 of the *National Framework for Air Quality Management 2017*.

³⁹² Regulation 5.9.1.2 of the *National Framework for Air Quality Management 2017*.

³⁹³ Regulation 5.9.1.2 of the *National Framework for Air Quality Management 2017*.

³⁹⁴ Regulation 5.9.1.2 of the *National Framework for Air Quality Management 2017*.

Furthermore, keeping stakeholders informed about on-going air quality management projects and decision making processes, including public participation related opportunities have been recognized.³⁹⁵ Timeous provision of up-to-date information has been identified as a key factor that should be adopted by all three spheres of government.³⁹⁶ Effective announcement of public participation opportunities must be done through publication on the national department websites and electronically appropriate media.³⁹⁷ Notifications to stakeholders through use of up to date databases and mailing lists, taking into special consideration effective communication to the vulnerable and affected communities, has also been provided for.³⁹⁸ Bringing early and balanced participation at a stage when key options are still open, also ensures that all perspectives are captured and properly assessed at the beginning of the process.³⁹⁹ This gives all stakeholder groups equal opportunities to convey their views and in this regard, stakeholder workshops, amongst other participatory tools that enhance in-depth interaction and promotion of face-to-face dialogues, should be embraced.⁴⁰⁰

The provision of feedback and the acknowledgement of written contributions and input by stakeholders have been considered essential to this participatory process. This is because this feedback and contributions strengthen the relationship and builds trust between government and the public.⁴⁰¹ To achieve this, government must be in a position to prepare concise and simplified response documents that explain the rationale for final decisions or outcomes hence, increasing understanding by the public.⁴⁰² Such documents must be readily available to the public upon request.⁴⁰³ When it comes to public participation, significant consideration should be given to the aspect of addressing the needs of the vulnerable groups and communities, to ensure their effective participation in air quality decisions.⁴⁰⁴ However, some constraints

³⁹⁵ Regulation 5.9.1.3 of the *National Framework for Air Quality Management 2017*.

³⁹⁶ Regulation 5.9.1.3 of the *National Framework for Air Quality Management 2017*.

³⁹⁷ Regulation 5.9.1.4 of the *National Framework for Air Quality Management 2017*.

³⁹⁸ Regulation 5.9.1.4 of the *National Framework for Air Quality Management 2017*.

³⁹⁹ Regulation 5.9.1.5 of the *National Framework for Air Quality Management 2017*.

⁴⁰⁰ Regulation 5.9.1.5 of the *National Framework for Air Quality Management 2017*.

⁴⁰¹ Regulation 5.9.1.6 of the *National Framework for Air Quality Management 2017*.

⁴⁰² Regulation 5.9.1.6 of the *National Framework for Air Quality Management 2017*.

⁴⁰³ Regulation 5.9.1.6 of the *National Framework for Air Quality Management 2017*.

⁴⁰⁴ Regulation 5.9.1.7 of the *National Framework for Air Quality Management 2017*.

relating to capacity, including lack of technical and human resources as well as lack of financial resources by the public to attend meetings, have been noted.⁴⁰⁵ As such, government must take cognisance of these constraints when organising meeting locations and times when setting timelines for public comment.⁴⁰⁶

Professionalism and skilled process management have been identified as ensuring that public participation processes are managed in a professional manner.⁴⁰⁷ Thus, enhancing the quality of engagement and strengthening the relationship between the government and stakeholders.⁴⁰⁸ It is of paramount importance to include such relevant measures, to ensure availability of meeting and workshop reports in a timely manner, the neutral facilitation of meetings and the practice of keeping stakeholders informed concerning follow-up activities.⁴⁰⁹ The Framework also provides that in pursuit of enhancing such professionalism in public participation, the national department will engage in capacity-building activities.⁴¹⁰ These activities will aim at strengthening the skills of officials in all spheres of government as regards effective management of stakeholder processes.⁴¹¹

The upholding and incorporation of other public participation requirements in other existing legislation, such as the *Promotion of Access to Information Act (PAIA)*,⁴¹² and *Promotion of Administrative Justice Act (PAJA)*,⁴¹³ are also taken into consideration. These are responsible for the implementation of public participation in development of air-quality management tools, which include the standard-setting process and air-quality management planning.⁴¹⁴ In all these identified concept areas and aspects, a drive towards raising awareness of all issues leading to clean air is paramount for the meaningful involvement of all citizens.⁴¹⁵ The reason is to ensure significant progress

⁴⁰⁵ Regulation 5.9.1.7 of the *National Framework for Air Quality Management 2017*.

⁴⁰⁶ Regulation 5.9.1.7 of the *National Framework for Air Quality Management 2017*.

⁴⁰⁷ *Regulation 5.9.1.8 of the National Framework for Air Quality Management 2017*.

⁴⁰⁸ Regulation 5.9.1.8 of the *National Framework for Air Quality Management 2017*.

⁴⁰⁹ Regulation 5.9.1.8 of the *National Framework for Air Quality Management 2017*.

⁴¹⁰ Regulation 5.9.1.8 of the *National Framework for Air Quality Management 2017*.

⁴¹¹ Regulation 5.9.1.8 of the *National Framework for Air Quality Management 2017*.

⁴¹² *Promotion of Access to Information Act 2 of 2000*.

⁴¹³ *Promotion of Administrative Justice Act 3 of 2000*.

⁴¹⁴ Regulation 5.9.1.9 of the *National Framework for Air Quality Management 2017*.

⁴¹⁵ Regulation 5.9.1.10 of the *National Framework for Air Quality Management 2017*.

towards achieving the goal of clean air.⁴¹⁶ As such, capacity building is also upheld as key to achieving effective public participation.⁴¹⁷

4.9 Climate Change Bill⁴¹⁸

In an effort to make a fair contribution to the global effort to stabilise greenhouse gas concentrations in the atmosphere, South Africa has the *Climate Change Bill*. Amongst its objectives is to provide for legislation relating to the coordination and integration of a response to climate change and its impacts in all spheres of government, according to the principles of cooperative governance.⁴¹⁹ The interpretation and application of the Bill is guided by the national environmental management principles set out in section 2 of the NEMA, which principles include the principle of public participation in matters relating to the environment.

Section 16 of the Bill therefore provides for a consultative process, which states that before exercising a power in terms this Act, the Minister or MEC must follow appropriate consultative processes in the circumstances.⁴²⁰ Furthermore, the Minister must consult with all Cabinet members whose areas of responsibility will be affected by the exercise of the power.⁴²¹ It is even more important that, in accordance with the principles of cooperative governance as set out in Chapter 3 of the Constitution, the Minister must consult the MEC responsible for the environment in each province that will be affected by the exercise, allowing public participation in the process.⁴²²

The Bill makes a specific provision for public participation and states that before exercising a power, in terms of this Act, the Minister or MEC must give notice of the proposed exercise of the relevant power in the Government Gazette and in at least one newspaper distributed nationally.⁴²³ If the exercise of the power will affect only a

⁴¹⁶ Regulation 5.9.1.10 of the *National Framework for Air Quality Management* 2017.

⁴¹⁷ Regulation 5.9.2 of the *National Framework for Air Quality Management* 2017.

⁴¹⁸ *Climate Change Bill* 2018.

⁴¹⁹ Sections 2(a) and 2(c) of the *Climate Change Bill* 2018.

⁴²⁰ Section 16(1) of the *Climate Change Bill* 2018.

⁴²¹ Section 16(2) (1) (a) of the *Climate Change Bill* 2018.

⁴²² Sections 16(2) (1) (b) and 16(2) (1)(c) of the *Climate Change Bill* 2018.

⁴²³ Section 17 of the *Climate Change Bill* 2018.

specific area, the notice should be made in at least one newspaper distributed in that area.⁴²⁴ Such notice must invite members of the public to submit to the Minister or MEC, within 30 days of publication of the notice in the Gazette, written representations on or objections to the proposed exercise of the power.⁴²⁵ This notice must also contain sufficient information to enable members of the public to submit meaningful representations or objections.⁴²⁶ Furthermore, the Minister or MEC may in appropriate circumstances allow any interested person or community to present oral representations or objections to the Minister or MEC, or a person designated by the Minister or MEC.⁴²⁷ Thereafter, the Minister or MEC is directed to give due consideration to all representations, or objections received or presented, before exercising the power.⁴²⁸

4.10 Conclusion

The above analysis has given a clear reflection that public participation is critical towards successful implementation of the international obligations relating to climate change mitigation, as outlined in the *Paris Agreement*.⁴²⁹ It is undebatable that greater public participation and engagement in policy processes and implementation result in more effective policy measures with benefits, which include better-framed and more robust policies and a more informed, articulate and engaged citizenry.⁴³⁰ Though shortcomings in relation to the implementation of public participation may be detected, the benefits derived from successful implementation outweigh the disadvantages.⁴³¹ South Africa through its laws and policies has made a substantive effort to uphold incorporation of public participation as one of the principles and tools towards fulfilment and implementation of the *Paris Agreement*.⁴³² The aim of this chapter was to establish how the principle of public participation, as provided for in the *Paris*

⁴²⁴ Section 17(1) (a-b) of the *Climate Change Bill* 2018.

⁴²⁵ Section 17(2) (a-b) of the *Climate Change Bill* 2018.

⁴²⁶ Section 17(2) (a-b) of the *Climate Change Bill* 2018.

⁴²⁷ Section 17(3-4) of the *Climate Change Bill* 2018.

⁴²⁸ Section 17(3-4) of the *Climate Change Bill* 2018.

⁴²⁹ See Chapter 4 in general.

⁴³⁰ Observation from Chapter 4 analysis in general.

⁴³¹ *Author's contribution*.

⁴³² *Author's contribution*.

Agreement and its preceding UNFCCC and its *Kyoto Protocol*, has been implemented and fulfilled in the South African laws and policies. The discussion in this chapter illustrated the importance of incorporating and implementing public participation as a principle towards climate change mitigation. This has been done by making an analysis of South African climate change laws and showing how the laws have embraced the principle towards climate change mitigation. The subsequent chapter now looks into monitoring as a theme provided for in the *Paris Agreement* and examines how it has been incorporated, fulfilled and implemented in South African laws and policies.

Chapter 5: The concept of monitoring in international climate change legal instruments and South African climate change laws

5.1 Introduction

This chapter aims to discuss the monitoring concept and establish how the provisions that enhance monitoring as outlined in the *Paris Agreement* and in the UNFCCC and its *Kyoto Protocol* are reflected, implemented, and fulfilled through South African climate change laws.⁴³³

Monitoring refers to the collecting, analysing, and reporting of data on inputs, activities, outputs, outcomes and impacts as well as other external factors.⁴³⁴ Its main aim is to provide decision makers and other stakeholders with regular feedback on progress in respect of implementation.⁴³⁵ It also provides results and early indicators of problems that need to be corrected to ensure effective implementation.⁴³⁶ Monitoring also reports on actual performance against what was planned, or expected in terms of the targets.⁴³⁷ In the context of climate change mitigation, monitoring refers, amongst other aspects, to the measurement of carbon stocks, GHG emissions, and socioeconomic and environmental benefits, consequences and costs that occur as a result of related projects.⁴³⁸

Monitoring is usually implemented alongside evaluation.⁴³⁹ Evaluation is a time-bound and periodic exercise that seeks to provide credible and useful information to answer specific questions that should guide decision making by policy makers and implementers.⁴⁴⁰ Evaluations alongside monitoring may assess relevance, efficiency, effectiveness, impact, and sustainability in examining whether underlying theories and assumptions were valid, what worked, what did not work and why.⁴⁴¹ Hence,

⁴³³ Articles 13.5 and 14 of the *Paris Agreement* (2015).

⁴³⁴ *Policy Framework for the GwM&E System* (2007) 1-2.

⁴³⁵ *Policy Framework for the GwM&E System* (2007) 1-2.

⁴³⁶ *Policy Framework for the GwM&E System* (2007) 1-2.

⁴³⁷ *Policy Framework for the GwM&E System* (2007) 1-21-2.

⁴³⁸ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 2.

⁴³⁹ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 2.

⁴⁴⁰ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 2.

⁴⁴¹ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 2.

crosscutting lessons are extracted from experiences and the need for modifications is determined.⁴⁴² Ssekamatte defines evaluation as the systematic assessment of the operation and/or outcomes of a program or policy, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the program or policy.⁴⁴³

Monitoring combined with Evaluation (hereinafter referred to as M&E) is driven by a number of concepts.⁴⁴⁴ These include an analysis of the inputs into a programme and the activities or actions that use the inputs to produce the desired outputs and outcomes.⁴⁴⁵ M&E also involves the outputs as regards what has been delivered and the outcomes, that should relate clearly to strategic goals and objectives as set out in its plans.⁴⁴⁶ It also includes what is intended to be achieved and the impacts that reflect how the target groups have been influenced.⁴⁴⁷ Correct implementation of M&E and its systems provides a continuous flow of information and feedback into the system, which assists in achieving the desired results.⁴⁴⁸ The integration of monitoring and evaluation mechanisms through legislative processes, programmes and policies therefore cannot be underestimated, particularly in the context of climate change mitigation.⁴⁴⁹

To achieve the aim of this chapter as stated above, a desktop study analysis will therefore be made to explore of the provisions of the *Paris Agreement* and the UNFCCC and its *Kyoto Protocol* as regards monitoring and concepts related to monitoring. Thereafter, a desktop analysis of policies and legislation relating to monitoring and climate change in South Africa will be done. The aim is to establish how the *Paris Agreement* and the UNFCCC and *its Kyoto Protocol* have been provided for, implemented and fulfilled. Specifically, the following documents will be discussed: the

⁴⁴² Vine, Sathaye and Makundi 2001 *Glob Environ Change* 2.

⁴⁴³ Ssekamatte 2018 *Afr Eval J* 3.

⁴⁴⁴ Ssekamatte 2018 *Afr Eval J* 2.

⁴⁴⁵ Ssekamatte 2018 *Afr Eval J* 2.

⁴⁴⁶ Ssekamatte 2018 *Afr Eval J* 2.

⁴⁴⁷ Ssekamatte 2018 *Afr Eval J* 2.

⁴⁴⁸ Motingoe *Monitoring and evaluation system* 112-113.

⁴⁴⁹ Rotaru, Manciualea and Draghici 2019 *Environ Eng Manage J* 1843.

1996 Constitution, the 1998 NEMA, the 2004 NEMAQA and its Framework, the *Government-wide Monitoring and Evaluation* policy framework (hereinafter referred to the GwM&E), the 2010 NCCR *Green Paper*, the 2011 NCCR *White Paper*, the 2014 EIA Regulations, the 2015 and 2016 *Climate Change Responses Annual Reports*, and the 2018 *Climate Change Bill*.

5.2 Paris Agreement, UNFCCC and the Kyoto Protocol

The *Paris Agreement* (hereinafter the *Agreement*) made a provision for all the parties to make an input towards climate change mitigation via a demonstration of their ambitious goals through their NDCs.⁴⁵⁰ This is made in consideration of their CBDR-RC, towards fulfilling the objectives of *Paris Agreement*.⁴⁵¹ In pursuit of monitoring progress to the NDCs and the objectives, parties to the *Paris Agreement* are obliged to periodically take stock of the implementation of the *Agreement* in a comprehensive and facilitative manner.⁴⁵² They must also assess the collective progress towards achieving the purpose of the *Agreement* and its long-term goals.⁴⁵³ This process has been labeled as the "global stocktake".⁴⁵⁴ Stocktake has been defined as the reassessing of the progress of a current situation.⁴⁵⁵ The use of the same semantics with M&E in terms of assessing progress, demonstrates the same purpose and objective towards achieving the global stocktake.⁴⁵⁶

Article 13.5 emphasises a transparency framework for the purpose of providing a clear understanding of climate change action in light of the objective of the Convention, as set out in its article 2.⁴⁵⁷ Emphasis is also placed on the inclusion of clarity and tracking of progress towards achieving Parties' individual NDC's under article 4, including good

⁴⁵⁰ Article 4(2) of the *Paris Agreement* (2015).

⁴⁵¹ Article 4(3) of the *Paris Agreement* (2015).

⁴⁵² Article 14(1) of the *Paris Agreement* (2015).

⁴⁵³ Article 14(1) of the *Paris Agreement* (2015).

⁴⁵⁴ Article 14(1) of the *Paris Agreement* (2015).

⁴⁵⁵ Collins English Dictionary 2018 <https://www.collinsdictionary.com/dictionary/english/stocktake>.

⁴⁵⁶ Collins English Dictionary 2018 <https://www.collinsdictionary.com/dictionary/english/stocktake>. This is the author's contribution and assessment regards the application of the semantics, their purpose and interpretation of the intention of legislation.

⁴⁵⁷ Article 13(5) of the *Paris Agreement* (2015).

practices, priorities, needs and gaps, towards informing the global stocktake.⁴⁵⁸ According to the Conference of the Parties, which served as the meeting of the Parties to the *Agreement*, parties undertook to present their first global stocktake in 2023 and every five years thereafter, unless otherwise decided by the Conference of the Parties.⁴⁵⁹ The outcome of the global stocktake will then inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this *Agreement*, as well as in enhancing international cooperation for climate action.⁴⁶⁰

Instead of using the word "monitoring", the UNFCCC makes use of the word "observation" to achieve the same objectives, with monitoring as a feedback mechanism to its implementation.⁴⁶¹ Article 5 provides for research and observation and states that in implementing article 4(1) (g), which includes examining consequences relating to climate change mitigation, parties should create programmes aimed at assessment, data collection and systematic observation.⁴⁶² Furthermore, the UNFCCC, in article 7(2) provides that the Parties to the Conference will keep a regular review of and assess the effects and impacts emanating from the implementation of the Convention.⁴⁶³ Parties are also obliged to adopt regular reports on the implementation of the Convention and ensure their publication.⁴⁶⁴ The UNFCCC also established a subsidiary body to assist in the assessment and reviewing of implementation of the Convention.⁴⁶⁵ Impact assessments are also recognised as one of the methods that can be adopted towards minimizing the adverse effects that may emanate due to climate change mitigation.⁴⁶⁶

The *Kyoto Protocol* also provides for a review process that shall be a thorough and comprehensive technical assessment of all aspects of the implementation of the

⁴⁵⁸ Article 14(1) of the *Paris Agreement* (2015).

⁴⁵⁹ Article 14(2) of the *Paris Agreement* (2015).

⁴⁶⁰ Article 14(3) of the *Paris Agreement* (2015).

⁴⁶¹ Author's interpretation of use of different semantics and the intention of legislation.

⁴⁶² Article 5(a) of the UNFCCC (1992).

⁴⁶³ Article 7(2) (e) of the UNFCCC (1992).

⁴⁶⁴ Article 7(2) (e) of the UNFCCC (1992).

⁴⁶⁵ Article 10(1) of the UNFCCC (1992).

⁴⁶⁶ Article 4(1)(f) of the UNFCCC (1992).

Protocol by its parties.⁴⁶⁷ An expert review team would be established to prepare a report to the Conference of the Parties serving as the meeting of the Parties to this *Protocol*.⁴⁶⁸ In assessing the implementation of the Parties' commitments and identifying any potential problems in, and factors influencing, the fulfilment of commitments.⁴⁶⁹ The Conference of the Parties would also assess, namely (1) the basis of all information made available to it in accordance with the provisions of this *Protocol*, (2) the implementation of this *Protocol* by the Parties, and (3) the overall effects of the measures taken pursuant to this *Protocol* and the cumulative impacts and extent to which progress towards the objective of the Convention is being achieved.⁴⁷⁰

Though the above-discussed international climate change laws use different semantics, they all point to the objective of monitoring towards taking stock of what is transpiring in the implementation of these laws.⁴⁷¹ Taking the above discussed provisions into consideration, the chapter will now analyse how the South African climate change laws and policies related thereto, have incorporated monitoring and elements, towards implementing and fulfilling the provisions of the *Paris Agreement*. The provisions of the following will be analysed: the 1996 Constitution, the 1998 NEMA, the 2004 NEMAQA and its Framework, the GwM&E, the 2011 NCCR *White Paper*, the 2014 EIA Regulations, the 2015 and 2016 *Climate Change Responses Annual Reports* and the 2018 *Climate Change Bill*.

5.3 Constitution of the Republic of South Africa

Being the Supreme Law, the Constitution gives credence to the Parliament for the promulgation of laws that are consistent with its provisions.⁴⁷² It provides principles for public institutions, which include environment-related institutions to conduct their business effectively, accountably, transparently, accurately and provide timely information, which may be used to monitor and evaluate the performance of public

⁴⁶⁷ Article 8(3) of the *Kyoto Protocol* (1997).

⁴⁶⁸ Article 8(3) of the *Kyoto Protocol* (1997).

⁴⁶⁹ Article 8(3) of the *Kyoto Protocol* (1997).

⁴⁷⁰ Article 13(4) (a) of the *Kyoto Protocol* (1997).

⁴⁷¹ *Author's analysis*.

⁴⁷² Section 44 of the *Constitution of the Republic of South Africa* (1996).

institutions.⁴⁷³ Although the Constitution does not make specific provision for monitoring and evaluation of environment-related programmes, policies and their implementation, the Constitution provides an enabling framework through other provisions like section 24(b) of the Constitution for good and best administrative practices.⁴⁷⁴ These practices enhance monitoring and evaluation through development of policies and reasonable legislation in support of M&E.⁴⁷⁵ These constitutional provisions paved the way for the promulgation of various laws and policies which enable monitoring that relates to climate change mitigation, which will be discussed in this chapter.

5.4 NEMA and EIA Regulations

South Africa's statement to the UNFCCC COP 13 Plenary held in Bali, Indonesia, in November and December 2007 made it clear that the country was prepared to undertake ambitious mitigation action that is measurable, reportable and verifiable.⁴⁷⁶ The objectives, amongst other COPs, culminated in the UNFCCC, which the *Paris Agreement* intends to implement.⁴⁷⁷ As a developing country, South Africa has to contribute its fair share towards global common responsibility for future climate change action. Hence, the necessity of stocktaking and monitoring mechanisms.⁴⁷⁸

In particular, the overarching legislation relating to environmental activities, NEMA, promulgated through section 24 of the Constitution, has provisions that enhance the monitoring system towards protection of the environment.⁴⁷⁹ NEMA provides for environmental authorisations.⁴⁸⁰ It states that in order to give effect to the general objectives of integrated environmental management, the potential consequences for or impacts on the environment, listed activities or specified activities must be

⁴⁷³ Section 195 of the *Constitution of the Republic of South Africa* (1996).

⁴⁷⁴ Section 24(b) of the *Constitution of the Republic of South Africa* (1996).

⁴⁷⁵ Author's contribution.

⁴⁷⁶ See Legora *South Africa's international climate change mitigation* 19-20 for more detail on the *Bali action plan*.

⁴⁷⁷ Article 2(1) of the *Paris Agreement* (2015).

⁴⁷⁸ Gilder and Swanepoel "Climate Change" 764.

⁴⁷⁹ *National Environmental Management Act* 107 of 1998.

⁴⁸⁰ Section 24(1) of NEMA.

considered, investigated, assessed, and reported to the competent authority or the Minister responsible for mineral resources.⁴⁸¹ The reference to mineral resources is pre-empted by the fact that mining activities and the dependence on coal for its production releases a significant level of greenhouse gases, which contribute to climate change.⁴⁸² The Minister or a MEC with the concurrence of the Minister, may identify activities that may not commence without environmental authorisation from the competent authority, assesses and monitors the activities.⁴⁸³

Procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must include, with respect to every application for an environmental authorisation, potential consequences or impacts and the alternatives to the activity on the environment.⁴⁸⁴ Assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity in the interest of environmental protection, should also be carried out.⁴⁸⁵ Further investigation of mitigation measures to keep adverse consequences or impacts to a minimum, have to be done.⁴⁸⁶ This has to be followed by reporting on identified gaps in knowledge, the adequacy of predictive methods and underlying assumptions, and uncertainties encountered in compiling the required information.⁴⁸⁷ The investigation and formulation of arrangements for the monitoring and management of consequences for or impacts on the environment, and the assessment of the effectiveness of such arrangements after their implementation, should be made before activities relating to the environment are commenced.⁴⁸⁸ According to NEMA the Minister, or an MEC with the concurrence of the Minister, may make regulations that are consistent with subsection (4) in laying down the required procedure to be followed in applying for, the issuing of and monitoring compliance

⁴⁸¹ Section 24(1) of NEMA. Take note that the word "assess" has been defined as a synonym of the word "evaluate". Collins English Dictionary 2018 <https://www.collinsdictionary.com/dictionary/english/assess>.

⁴⁸² Section 24(1) of NEMA.

⁴⁸³ Section 24(1) of NEMA.

⁴⁸⁴ Section 24(4) (b) (i) of NEMA.

⁴⁸⁵ Section 24(4) (b) (i) of NEMA.

⁴⁸⁶ Section 24(4) (b) (ii) of NEMA.

⁴⁸⁷ Section 24(4) (b) (iv) of NEMA.

⁴⁸⁸ Section 24(4) (b) (v) of NEMA.

with environmental authorisations.⁴⁸⁹ Procedures for monitoring and performance assessments of environmental management programmes can also be formulated by the Minister or MEC.⁴⁹⁰ Following this provision, the EIA Regulations were promulgated specifically for the purpose of regulating the procedure and criteria as contemplated in Chapter 5 of the NEMA.⁴⁹¹ The EIA Regulations relate to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for environmental authorisations for the commencement of activities, subjected to environmental impact assessment.⁴⁹² The reason is to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts.⁴⁹³ The regulations also mandate the Minister to report to Parliament once a year regarding international environmental instruments, amongst others the *Paris Agreement*.⁴⁹⁴ Such a report may include details on participation in international meetings with regard to international environmental instruments.⁴⁹⁵ The report should also outline the progress made in implementing international environmental instruments to which the Republic is a party.⁴⁹⁶ Furthermore, the report must provide for legislative measures that have been taken and the time frames within which it is envisaged that their objectives will be achieved.⁴⁹⁷ It is such assessments and authorisation which contribute to the M&E at national level and inform the global stocktake.⁴⁹⁸

The Courts have also played a significant role in upholding the importance of monitoring and evaluation of environmental activities.⁴⁹⁹ This is evidenced by the *Earthlife* case, which has been a pace-setter in matters relating to climate change mitigation and environmental authorisations.⁵⁰⁰ The Courts acknowledged that a party

⁴⁸⁹ Section 25(a) of NEMA.

⁴⁹⁰ Section 24(5)(b)(x) of NEMA; see also s 24Q for detail regarding to monitoring and performance assessment.

⁴⁹¹ GN R982 in GG 38282 of 8 December 2014.

⁴⁹² Regulation 2 of GN R982 in GG 38282 of 8 December 2014.

⁴⁹³ Regulation 2 of GN R982 in GG 38282 of 8 December 2014.

⁴⁹⁴ Regulation 26(1) (a, b and f) of GN R982 in GG 38282 of 8 December 2014.

⁴⁹⁵ Regulation 26(1) (a, b and f) of GN R982 in GG 38282 of 8 December 2014.

⁴⁹⁶ Regulation 26(1) (a, b and f) of GN R982 in GG 38282 of 8 December 2014.

⁴⁹⁷ Regulation 26(1) (a, b and f) of GN R982 in GG 38282 of 8 December 2014.

⁴⁹⁸ Author's contribution.

⁴⁹⁹ *Earthlife Africa Johannesburg v Minister of Environmental Affairs* (65662/16) [2017] ZAGPPHC 58; [2017] 2 All SA 519 (GP) (8 March 2017).

⁵⁰⁰ *Earthlife* case.

who seeks to construct a new coal-fired power station is required to be granted an environmental authorisation.⁵⁰¹ The authorisation can be obtained from the relevant decision-makers in the DEA in terms of section 24 of the NEMA.⁵⁰² This section provides that any activities, that are listed or specified by the Minister of Environmental Affairs must obtain an environmental authorisation before they may commence.⁵⁰³ Due to the environmental impact of such activities, the construction of a coal-fired power station is one such listed activity by virtue of the amount of greenhouse gases that it emits, which requires monitoring towards mitigation.⁵⁰⁴

5.5 Government-wide Monitoring and Evaluation Policy Framework (GwM&E)

The South African government also put into place the *Government-wide Monitoring and Evaluation Policy Framework* (GwM&E).⁵⁰⁵ This policy seeks to embed a management system within public sector organisation operations in relation to monitoring and evaluation.⁵⁰⁶

This overarching GwM&E aims to provide an integrated, encompassing framework of M&E principles, practices and standards which are applicable throughout Government.⁵⁰⁷ The GwM&E functions as an apex-level information system which draws from the component systems in the framework to deliver useful M&E products for its users.⁵⁰⁸ This far, the framework influences monitoring and evaluation mechanisms relating to climate change mitigation and other similar factors as far as the government is involved in service to the public and fulfilment of constitutionally

⁵⁰¹ *Earthlife* case para 2; see also s 24 of NEMA and LLMO assignment by Blessing Nyamusamba dated 30 March 2021.

⁵⁰² *Earthlife* case para 2; see also s 24 of NEMA and LLMO assignment by Blessing Nyamusamba dated 30 March 2021.

⁵⁰³ *Earthlife* case para 2; see also s 24 of NEMA and LLMO assignment by Blessing Nyamusamba dated 30 March 2021.

⁵⁰⁴ *Earthlife* case para 2; see also s 24 of NEMA and LLMO assignment by Blessing Nyamusamba dated 30 March 2021.

⁵⁰⁵ *Policy Framework for the GwM&E System* (2007).

⁵⁰⁶ *Policy Framework for the GwM&E System* (2007) 4.

⁵⁰⁷ *Policy Framework for the GwM&E System* (2007) 5 see also Phetla *Monitoring and evaluation* 19.

⁵⁰⁸ *Policy Framework for the GwM&E System* (2007) 5 see also Phetla *Monitoring and evaluation* 19.

enshrined environmental rights.⁵⁰⁹ The GwM&E gives an outline of principles to be considered when the implementation of projects is monitored and evaluated.⁵¹⁰ This framework provides that it is a requirement that the chief executive officer of a public entity should establish a monitoring and evaluation system for the institution.⁵¹¹ The system is to be used by primary users of the M&E to refine their planning and implementation processes.⁵¹² In turn, the data and information from these source systems will also be used by other stakeholders in the GwM&E system and beyond to create an overall picture of national, provincial and local performance, which can be analysed and collated through use of Information and Technology Systems.⁵¹³ It is therefore significant that such provisions have been made giving a foundational base for M&E.⁵¹⁴ In terms of climate change mitigation, such a mechanism is needed to determine the impact on greenhouse gas emissions, mitigation thereof and other attributes at national level, towards ensuring accountability and ensuring that the global climate is protected as country obligations are met.⁵¹⁵

5.6 National Climate Change Response Green Paper (2010)

The *Green Paper* considers institutional arrangements to be necessary for its implementation.⁵¹⁶ Effective monitoring and evaluation of government policies, strategies and legislation is deemed important towards ensuring alignment with the purposes of mitigation.⁵¹⁷ Towards effective monitoring, the *Green Paper* provides for outcome-based monitoring, whereby monitoring and evaluation of the country's climate change programme would be undertaken through the outcomes-based system that has been established by the Presidency.⁵¹⁸ The results of the monitoring and

⁵⁰⁹ Author's contribution; see also s 24 of the Constitution which provides for environmental rights.

⁵¹⁰ *Policy Framework for the GwM&E System* (2007) 3.

⁵¹¹ *Policy Framework for the GwM&E System* (2007) 4.

⁵¹² *Policy Framework for the GwM&E System* (2007) 4.

⁵¹³ *Policy Framework for the GwM&E System* (2007) 4.

⁵¹⁴ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 203.

⁵¹⁵ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 203.

⁵¹⁶ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 7.

⁵¹⁷ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 7.

⁵¹⁸ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 7.2.

evaluation would thereafter be reported through the delivery forums.⁵¹⁹ The *Green Paper* also provides for the climate change response monitoring, reporting and verification (MRV) system to be designed and published.⁵²⁰ This assists with measurement of the efficacy of response interventions, cost effectiveness and impact, and to facilitate the replication of successful mitigation interventions.⁵²¹

The MRV system should meet the requirements for South Africa's response monitoring and align with the evolving international MRV requirements.⁵²² The implementation of the monitoring and evaluation policy will be monitored through cooperative governance mechanisms.⁵²³ It will be constantly reviewed towards further elaboration and alignment with regulatory and legislative Instruments.⁵²⁴

The *Green Paper* also provides that research and observation bodies should initiate and maintain nation-wide climate change monitoring systems.⁵²⁵ Furthermore, implement and comply with the monitoring system for developing countries that is finally negotiated internationally.⁵²⁶ In line with the government's local and international undertakings and South Africa's climate change response objective, climate change mitigation interventions are informed by, and will be monitored and measured as aligned with, the peak, plateau and decline emission trajectory.⁵²⁷

⁵¹⁹ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 7.2.

⁵²⁰ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 8.4.10.

⁵²¹ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 8.4.10.

⁵²² DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 8.4.10.

⁵²³ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 9.

⁵²⁴ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 9.

⁵²⁵ Ibid.

⁵²⁶ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 9.1.1 and 9.1.4.

⁵²⁷ DFFE 2010 https://www.dffe.gov.za/sites/default/files/legislations/national_climatechnage_response_0.pdf reg 9.2.

5.7 National Climate Change Response Policy White Paper (2011)

Towards effective climate change response and the long-term, just transition to a climate-resilient and lower-carbon economy and society, measurement and monitoring of climate change responses have been acknowledged as critical to ensure their effective implementation.⁵²⁸ Given the nature and implications of climate change and the economic and social implications of effective climate change responses, decisions must therefore be based on accurate, current and complete information in order to reduce risk and ensure that interventions are effective.⁵²⁹ To achieve this, nation-wide climate change and atmosphere monitoring systems are maintained and enhanced where necessary, including through monitoring networks and various aspects relating to climate change.⁵³⁰ It is deemed paramount to ensure that climate change impacts are monitored at appropriate spatial density and frequency.⁵³¹ It is also deemed paramount to establish a monitoring system for gathering information (with bottom-up inputs where possible) and to report progress with implementation.⁵³² According to the NCCR *White Paper*, the identification of key role-players involved in monitoring and measuring these indicators, together with a description of how these role-players will share and report information on observed climate change, is paramount.⁵³³

The monitoring of the success of responses to climate change has been identified as a strategy with the intention of replicating such responses that would have worked well, including measuring their cost, outcome and impact.⁵³⁴ This far, South Africa has set itself a target to the effect that, within two years of the publication of the NCCR *White Paper*, a policy, design and publication of a draft Climate change response monitoring and evaluation system should be put in place.⁵³⁵ This system would evolve with international MRV requirements.⁵³⁶ In respect of climate change, mitigation

⁵²⁸ NCCR White Paper, 2011 47.

⁵²⁹ Sections 12.1-12.1.1 of the NCCR White Paper, 2011.

⁵³⁰ Sections 12.1-12.1.1 of the NCCR White Paper, 2011.

⁵³¹ Sections 12.1.2-12.1.3 of the NCCR White Paper, 2011.

⁵³² Sections 12.1.2-12.1.3 of the NCCR White Paper, 2011.

⁵³³ Section 12.1.4 of the NCCR White Paper, 2011.

⁵³⁴ Section 12.3 of the NCCR White Paper, 2011.

⁵³⁵ Section 12.3 of the NCCR White Paper, 2011.

⁵³⁶ Section 12.3 of the NCCR White Paper, 2011.

interventions, monitoring and measurements would be effected against the national emissions trajectory range as outlined in section 6.4 of the NCCR.⁵³⁷ In pursuit of the implementation of objectives and measures specified in the carbon budget, sectoral mitigation strategies will be measured, reported and verified to assess progress in their implementation.⁵³⁸ The climate change response monitoring and evaluation system will assess indicators defined in the carbon budget and sectoral mitigation strategies as outlined in section 6.5 of the NCCR.⁵³⁹ This includes indicators of implementation, local sustainable development benefits and the impact of programmes and measures on emissions.⁵⁴⁰ Implementation of the monitoring process would be done through sectoral implementation mechanisms, coordinated by the DEA, which will ensure the annual publishing of the outcomes of the monitoring process.⁵⁴¹

5.8 Monitoring Climate Change Responses Annual Reports

South Africa's *National Climate Change Response Policy* (NCCR) commits the DEA in section 12 thereof to publish annual progress reports on the monitoring of climate change responses.⁵⁴² These progress reports represent the primary output of the Climate Change M&E framework.⁵⁴³ Hence, in 2015 the first of these annual progress reports was compiled, which focused on providing a narrative of the information that the DEA's Climate Change Branch has collated over the past few years.⁵⁴⁴ In pursuit of its Intended Nationally Determined Contributions and manifesting in the same year as the 2015 *Paris Agreement*, the climate change reports followed the objectives of the UNFCCC and the *Kyoto Protocol*, to which the *Paris Agreement* aims to implement.⁵⁴⁵

⁵³⁷ Section 6.4 of the NCCR White Paper, 2011.

⁵³⁸ Section 6.4 of the NCCR White Paper, 2011.

⁵³⁹ Section 12.3.2 of the NCCR White Paper, 2011.

⁵⁴⁰ Section 12.3.2 of the NCCR White Paper, 2011.

⁵⁴¹ Section 12.3.2 of the NCCR White Paper, 2011.

⁵⁴² NCCR White Paper, 2011.

⁵⁴³ DEA date unknown <https://www.environment.gov.za> (first report).

⁵⁴⁴ DEA date unknown <https://www.environment.gov.za> (first report).

⁵⁴⁵ DEA date unknown <https://www.environment.gov.za> (first report) 3; see also a 2(1) of the *Paris Agreement* (2015).

The main objective of the report is to communicate progress and lessons learnt in tracking South Africa's transition towards a climate resilient society and a lower-carbon economy.⁵⁴⁶ The report aims to target people and institutions involved in policy aspects of climate change.⁵⁴⁷ The first climate change report gives theme overviews, that include, namely (1) A Synopsis of South Africa's 2015 annual report on monitoring climate change responses, (2) South Africa's climate change monitoring and evaluation system, (3) climate change trends, risks, impacts and vulnerabilities, and (4) tracking of South Africa's Transition to a lower carbon economy among other themes.⁵⁴⁸ A brief analysis of the themes will now follow.

5.8.1 *South Africa's climate change monitoring and evaluation system*⁵⁴⁹

This theme gives an outline of South Africa's climate change monitoring and evaluation system, which presents the objectives of the M&E system, its benefits and an overview of the system.⁵⁵⁰ It outlines the national climate change response M&E system, which tracks firstly, the transition to a lower carbon economy using a multi-tiered approach; secondly, the transition to a climate resilient South Africa; and thirdly, it tracks climate finance.⁵⁵¹ This leads to an overview of institutional arrangements, the legal and regulatory framework and the implementation plan for the M&E system.⁵⁵² Furthermore, the theme also provides for the Greenhouse gas inventory improvement programme (GHGIP), which gives an outline of the rationale for developing the GHGIP, the National GHG Inventory System and GHGIP projects and their status.⁵⁵³ The key messages from the Climate change monitoring and evaluation theme are that as required by the 2011 *National climate change response policy* and the *National development plan 2030*, South Africa has designed and is in the process of implementing a national climate change M&E system composed of the National

⁵⁴⁶ DEA date unknown <https://www.environment.gov.za> (first report).

⁵⁴⁷ DEA date unknown <https://www.environment.gov.za> (first report).

⁵⁴⁸ Theme A-D DEA date unknown <https://www.environment.gov.za> (first report).

⁵⁴⁹ Section 2.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵⁰ Section 2.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵¹ Section 2.1.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵² Section 2.1.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵³ Section 2.1.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

greenhouse gas inventory system and the *National climate change response* M&E system.⁵⁵⁴

The main objectives of this climate change M&E system are to track South Africa's transition to a climate-resilient society, by tracking the country's transition to a lower-carbon economy and by tracking climate finance.⁵⁵⁵ The benefits of the system include providing an evidence base for the impacts and the vulnerabilities brought about by climate change.⁵⁵⁶ This provides a learning pad for what has worked and what has not worked in climate change response.⁵⁵⁷ It also informs future responses to climate change, in assessing the impact as well as institutionalising the compilation of the national communications and the biennial update reports under the UNFCCC, which will be accessed through an online portal.⁵⁵⁸ The M&E system will assess indicators defined in desired emission reduction objectives (DEROs) and mitigation plans, including the impact on emissions, implementation and wider sustainable development (SD) benefits.⁵⁵⁹

Furthermore, the agriculture, forestry and other land use (AFOLU) sector has been identified as a specialised sector with unique characteristics, which will receive special attention in the climate change response M&E system.⁵⁶⁰ The MRV of AFOLU is being developed as a component of the climate change M&E system in a way that makes it a tool for gathering and communicating data information and knowledge.⁵⁶¹ The purpose is to ascertain the impacts of land sector activities and the impacts of policy and strategic interventions in the sector, primarily on GHG emissions.⁵⁶² As such, the

⁵⁵⁴ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵⁵ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵⁶ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵⁷ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵⁸ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B.

⁵⁵⁹ DEA date unknown <https://www.environment.gov.za> (first report) theme B 8 indicated as Table 1.1: NCCRP and NDP extracts on climate change monitoring and evaluation.

⁵⁶⁰ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B 8 indicated as Table 1.1: NCCRP and NDP extracts on climate change monitoring and evaluation.

⁵⁶¹ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B 8 indicated as Table 1.1: NCCRP and NDP extracts on climate change monitoring and evaluation.

⁵⁶² Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B 8 indicated as Table 1.1: NCCRP and NDP extracts on climate change monitoring and evaluation.

MRV of AFOLU will provide a knowledge base and measurement framework.⁵⁶³ It will inform both the undertaking and improvement of relevant land sector mitigation activities, at the same time helping the DEA to understand the impact of actions that enhance carbon sequestration and improved land management for multiple goals.⁵⁶⁴

The Department of Environmental Affairs also initiated a programme to improve its performance in the form of a GHGIP, which supports other climate change response initiatives such as the carbon tax monitoring, reporting and verification process.⁵⁶⁵ In terms of the programme, the emission factors derived from GHGIP projects are used by entities reporting for tax liability as opposed to using default IPCC emission factors, which do not necessarily reflect national circumstances.⁵⁶⁶ This is in comparison with the *Paris Agreement*, which provides for the consideration of national circumstances through the CBDR-RC principle.⁵⁶⁷

5.8.2 *Climate change trends, risks, impacts and vulnerabilities*⁵⁶⁸

This theme provides for the observation of trends in the Climate of South Africa, which analyses observed temperature and rainfall trends over the past few decades and drivers of variability of South Africa's climate together with a discourse on the different climate trends at provincial level.⁵⁶⁹ These observations are made before gaps and opportunities in this field are assessed and ideas presented on coordinating climate change research and data dissemination in South Africa.⁵⁷⁰ Climate change risks, impacts and vulnerabilities in South Africa, are emphasised as a climate change stress multiplier and are reviewed, observed and modeled as future risks, impacts and vulnerabilities of long-term change and extremes.⁵⁷¹ The focus is on hydrology and

⁵⁶³ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B 8 indicated as Table 1.1: NCCRP and NDP extracts on climate change monitoring and evaluation.

⁵⁶⁴ Section 2.1.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme B 8 indicated as Table 1.1: NCCRP and NDP extracts on climate change monitoring and evaluation.

⁵⁶⁵ Article 4(3) of the *Paris Agreement* (2015)

⁵⁶⁶ Article 4(3) of the *Paris Agreement* (2015)

⁵⁶⁷ Article 4(3) of the *Paris Agreement* (2015).

⁵⁶⁸ Section 2.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁶⁹ Section 2.2.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁷⁰ Section 2.2.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁷¹ Section 2.2.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

water resources, on biodiversity, agriculture and forestry, human settlements and on human health and an assessment of challenges, gaps and opportunities as well as policy implications.⁵⁷² The key message to be highlighted in this theme is that South Africa's economy and its people face risks due to the potential impacts from ongoing climate change.⁵⁷³ These risks are likely to increase significantly if global warming exceeds the ambition stated in the UNFCCC's *Paris Agreement* of remaining below a limit of 1.5 to 2°C above pre-industrial levels.⁵⁷⁴ South Africa's climate is projected to warm up between 1.5 and 2 times as fast as the global average, potentially resulting in drastic socio-economic and environmental effects.⁵⁷⁵

5.8.3 *Tracking South Africa's transition to a lower carbon economy*⁵⁷⁶

The following are provided for under this theme: National Level Indicators, including sustainable carbon levels and comparisons with various trajectories, indicators of lower carbon consumption and productivity and lower carbon resourcing.⁵⁷⁷ The theme also provides for key national and industrial mitigation response measures that focus on the mitigation impact of these measures and their impact on other sustainable development indicators.⁵⁷⁸ The theme also provides for and reviews low carbon development in provinces and cities, which assesses actions taken by provincial governments, metros and secondary cities, together with a wide-ranging appendix on response measures by individuals, groups and sectors in energy efficiency, electricity generation and transportation.⁵⁷⁹ Clean development mechanism (CDM) projects are also reviewed under this theme.⁵⁸⁰ While there is an overarching challenge of data availability and data quality in tracking South African's transition to a lower-carbon economy, a number of significant conclusions are drawn from this theme.⁵⁸¹ These

⁵⁷² Section 2.2.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁷³ Section 2.2.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁷⁴ Section 2.2.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁷⁵ Section 2.2.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁷⁶ Section 2.3 of DEA date unknown <https://www.environment.gov.za> (first report) theme D.

⁵⁷⁷ Section 2.3.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme D.

⁵⁷⁸ Section 2.3.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme D.

⁵⁷⁹ Section 2.3.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁸⁰ Section 2.3.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁸¹ Section 2.3.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

conclusions reflect that in 2010, South Africa's greenhouse gas emissions were within the national goal of the Peak, Plateau and Decline trajectory.⁵⁸² This is as far as the implied "carbon budget" between the country's 2010 emissions level of 518 Metric Tons of Carbon Dioxide Equivalent (MtCO₂e) and the maximum emissions level of 614 MtCO₂e as presented in the Intended NDC's under the UNFCCC in 2025, which is estimated at 96 MtCO₂e are concerned.⁵⁸³ By 2014, a total of 611.5 MtCO₂e had been mitigated through national level and industry programmes, with approximately 76 MtCO₂e having been reduced in 2014 alone.⁵⁸⁴

However, availability of data remains the biggest barrier to effective tracking and assessment of South Africa's transition to a lower-carbon economy.⁵⁸⁵ There is a dire need for key climate change response actors to participate in collecting, measuring, and monitoring primary output data on climate related projects and programmes in a more effective and systematic manner.⁵⁸⁶

5.9 Second climate change report⁵⁸⁷

In 2016, the second climate change report for South Africa was produced as a continuation of the tradition of documenting and building an evidence base to inform future responses to climate change.⁵⁸⁸ The report reflects on the progress in undertaking actions with the aim of recognising ongoing actions, quantifying their impact, catalysing new actions and indicating how these actions contribute to the national imperatives including M&E.⁵⁸⁹ Having been produced after the promulgation of the 2015 *Paris Agreement*, the second report made detailed reference to the provisions of the *Paris Agreement*.⁵⁹⁰ The second report highlights specifically the *Paris Agreement* collective goals, specific commitments, its rules and compliance

⁵⁸² Section 2.3.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁸³ Section 2.3.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁸⁴ Section 2.3.2 of DEA date unknown <https://www.environment.gov.za> (first report) theme C.

⁵⁸⁵ Section 2.3.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme D 14.

⁵⁸⁶ Section 2.3.1 of DEA date unknown <https://www.environment.gov.za> (first report) theme D 14.

⁵⁸⁷ DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁸⁸ DEA date unknown <https://www.environment.gov.za> (second report) 8.

⁵⁸⁹ Section 1.2 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹⁰ Chapter 2 of the DEA date unknown <https://www.environment.gov.za> (second report).

requirements, and its implications to South Africa in terms of mitigation, which is the focus of this research.⁵⁹¹ Specifically, Chapter 3 of the report focuses on the climate change monitoring and evaluation system, giving an overview of the M&E system, and an outline of the developments in the M&E towards mitigation.⁵⁹² South Africa has adopted the GHG inventory as a critical part of its transparency framework, inasmuch as it informs the scope and form of national mitigation policy and actions resulting in the introduction of the 2017 *National Greenhouse Gas Emission Reporting Regulations*, under the *National Environmental Management: Air Quality Act, 2004* (Act No. 39 of 2004).⁵⁹³ These regulations are part of a single national reporting system for the GHG emissions, which will be used predominantly to update and maintain the National GHG Inventory.⁵⁹⁴

Furthermore, there is also implementation of a GHGIP, which includes a series of sector specific projects and specifically, the National GHG information system (NGHGIS) seeks to improve the data management, documentation, governance and institutionalisation of the GHG preparation process.⁵⁹⁵ Indicators have been put in place for M&E purposes towards tracking South Africa's progress in achieving the mitigation component of its NDC's under the UNFCCC, as the *Paris Agreement* seeks to implement.⁵⁹⁶ These are the national indicators that are domestic targets graphs for GHG inventory vs. the peak, plateau and decline (PPD) trajectory vs. the business-as-usual trajectories and sectoral indicators, which cover sectoral decoupling of sectoral GHG emissions in relation to sectoral gross domestic products contributions.⁵⁹⁷ The indicators also include the emissions intensity for sectoral GHG emissions intensity per unit of service or product, and sectoral green jobs and indicators that assess the impact of individual response measures and policies.⁵⁹⁸ Upholding international organization for

⁵⁹¹ Figure 1 and ss 2.2-2.3 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹² Sections 3.1 and 3.2 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹³ Section 3.2.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹⁴ Section 3.2.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹⁵ Section 3.2.2 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹⁶ Section 6.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹⁷ Section 6.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁵⁹⁸ Section 6.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

standardisation, scholars like Hřebíček, Misařová, Hyršlová, emphasise on the importance of incorporating such environmental key performance indicators (KPIs) towards providing organisations in programme implementation with tools for measurement.⁵⁹⁹ These are quantifiable metrics that give a reflection of the environmental performance in the context of achieving wider objectives.⁶⁰⁰

The report also outlines major mitigation response measures which highlight mitigation assessments that assess the achieved and envisaged GHG emissions reductions of individuals or groups of response measures.⁶⁰¹ The report provides for carefully estimating the cumulative impact and sustainable development indicators assessing the achieved and envisaged sustainable development indicators resulting from the mitigation response measures and carefully estimating the cumulative impact.⁶⁰² Progress on the mitigation NDCs of South Africa is also outlined where the ex-post tracking of the emissions in relation to the 2025 and 2030 targets are provided.⁶⁰³ This makes a comparison of the GHG inventory with the targets and tracking of the mitigation instruments cited in the NDC implementation progress.⁶⁰⁴ It also shows mitigation assessment of the carbon tax, desired emission reduction objectives (DEROs), carbon budgets and a showcase of successful lower-carbon programmes being undertaken by a particular sector, in which the successes, challenges and lessons learnt, are highlighted.⁶⁰⁵ Well-designed monitoring and evaluation mechanisms therefore come through as handy tools towards effective monitoring and this tool should not be seen to be under utilised.⁶⁰⁶

⁵⁹⁹ Hřebíček, Misařová, Hyršlová "Environmental key performance indicators" 147.

⁶⁰⁰ Hřebíček, Misařová, Hyršlová "Environmental key performance indicators" 147; International Organization for Standardization 1999 Environmental Management – Environmental Performance Evaluation-Guidelines and <https://www.researchgate.net/publication/285714189>.

⁶⁰¹ Section 6.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁶⁰² Section 6.1 of the DEA date unknown <https://www.environment.gov.za> (second report).

⁶⁰³ DEA date unknown <https://www.environment.gov.za> (second report) 99.

⁶⁰⁴ DEA date unknown <https://www.environment.gov.za> (second report) 99.

⁶⁰⁵ DEA date unknown <https://www.environment.gov.za> (second report) 99; see also Phetla *Monitoring and evaluation* 6 on the illustration of some of the challenges faced in M&E.

⁶⁰⁶ Phetla *Monitoring and evaluation* 6; Kusek and Rist 2004 *World Bank Publications* xi. See also Ssekamatte 2018 *Afr Eval J* 1 regards underutilisation of M&E as a tool.

5.10 Climate Change Bill⁶⁰⁷

South Africa has a *Climate Change Bill*, which seeks to build the Republic's effective climate change response and the long-term, just transition towards a climate-resilient and lower carbon economy.⁶⁰⁸ To fulfil this ambition, a provision for institutional arrangements has been put in place for the establishment of the Ministerial committee on climate comprising of the Minister responsible for planning, monitoring and evaluation in the Presidency.⁶⁰⁹ Further, a climate change response for provinces and municipalities, whereby the MEC responsible for the environment or the Mayor of a municipality must within one year of the coming into operation of the Act, undertake a climate change needs and response assessment for the province or municipality.⁶¹⁰ These climate change needs and response assessments must be reviewed at least once every five years.⁶¹¹ Though the *Climate Change Bill* does not expound much in terms of M&E compared to how it expounds on other principles, for example on public participation, the mere fact that it has made a provision for the Ministerial committee mandated with monitoring and evaluation shows acknowledgement of M&E as a mechanism which feeds into the global stocktake towards fulfilling and implementing the provisions of the *Paris Agreement*.⁶¹²

5.11 Conclusion

The above discussion makes it inevitable to conclude that integration of monitoring and evaluation mechanisms through legislation and policies cannot be underestimated, towards fulfilment of the objectives of the *Paris Agreement*, in particular the global stocktake.⁶¹³ Scholars have expounded on the significance and effects of environmental monitoring on environmental legislative processes towards completion of the environmental legislative cycle and fulfilment of national and international goals

⁶⁰⁷ *Climate Change Bill* 2018.

⁶⁰⁸ Introduction to the *Climate Change Bill* 2018.

⁶⁰⁹ Section 8(1) of the *Climate Change Bill* 2018.

⁶¹⁰ Section 9(1) (a) of the *Climate Change Bill* 2018.

⁶¹¹ Section 9(1) (a) of the *Climate Change Bill* 2018.

⁶¹² *Author's contribution*.

⁶¹³ See para 5.2 above.

and targets.⁶¹⁴ Though challenges do exist, which include lack of capacity to implement monitoring and evaluation, baseline information which supports the implementation of M&E and integration of monitoring and evaluation with policy, it is clear that well-designed M&E helps governments assess whether and how the goals and objectives are being achieved over time towards the global stocktake.⁶¹⁵ The role of monitoring and evaluation in enhancing evidence-based management in development work thus needs continuous recognition. South Africa has however attempted to translate and mainstream through the above discussed legislation and policies, various aspects pertaining to M&E which contribute and influence feedback to the global stocktake in fulfilment of the *Paris Agreement*.⁶¹⁶

The primary aim of this chapter was therefore to make an analysis of how South Africa has attempted to fulfil and implement the *Paris Agreement* towards global stocktake through monitoring as a theme coupled with evaluation. In pursuit of this aim, an analysis and overview of the various policies and legislations has been made towards establishing the purpose of this chapter. The author also expounded and justified the importance of M&E towards climate change mitigation. The climate change annual reports have also demonstrated tangible efforts by South Africa towards implementation and fulfilment of the goals and objectives set in the *Paris Agreement* pertaining to global stocktake. The discussion in this chapter demonstrates that implementation of M&E systems helps in assessing whether or not and how, goals are being achieved over time. The discussion also enhances the realisation that, when implementation of M&E and its systems is done properly, it provides a continuous flow of information and feedback into the system which assists in achieving the desired results.⁶¹⁷ The dissertation will now proceed to bring a conclusion to the analysis of establishing how South African climate change laws and policies have incorporated, implemented, and fulfilled the provisions of international climate change law. This will

⁶¹⁴ See Chapter 5 discussion in general.

⁶¹⁵ See para 5.8.3 above.

⁶¹⁶ Author's assessment.

⁶¹⁷ Motingoe *Monitoring and evaluation system* 112-113.

be done with a focus on the *Paris Agreement*. Recommendations will also be made following this conclusion to wrap up the analysis.

Chapter 6: Conclusion and recommendations

6.1 Conclusion

The purpose of the research was to discuss the implementation and fulfilment of the *Paris Agreement* through South African climate change law, focusing on mitigation, public participation and monitoring as the main themes for discussion. It has been proven that climate change has brought unprecedented changes globally, which have led to the manifestation of negative effects on economies, health, housing, the environment and its biodiversity and the social infrastructure.⁶¹⁸ Climate change is caused by a combination of natural factors, that include volcanic eruptions and changes in solar radiation and anthropogenic activities that lead to the release of gaseous emissions, mostly due to fossil fuel combustions in the atmosphere.⁶¹⁹ This backdrop led to the international response that brought the adoption of the global regulatory system on environmental protection which, however, has been described as "complex, intense and delicate".⁶²⁰ The UNFCCC and its *Kyoto Protocol* and the *Paris Agreement* are the international climate change instruments where several strategies including climate change mitigation mechanisms and interventions were provided for.⁶²¹ Towards effective implementation of these international provisions and in particular the *Paris Agreement*, which is the main focus of this discussion, the role of the law and legislative policies and frameworks cannot be underestimated in this shift to global events in so far as legal issues will be raised which influence the existing and future environmental regulatory frameworks.⁶²²

The *Paris Agreement* has adopted the provisions and aimed to implement the foundational provisions laid down by the UNFCCC and its *Kyoto protocol* and its amendments. It provides for mitigation, public participation and monitoring themes, which are the main focus of this research. Following this, laws, policies and frameworks

⁶¹⁸ See para 2.1 above.

⁶¹⁹ See para 2.1 above.

⁶²⁰ See para 1.1 above.

⁶²¹ See detailed discussion in Chapter 2 of this research, specifically paras 2.2, 2.3, 2.4.

⁶²² See para 2.2.

ought to be promulgated at national level to ensure effective implementation.⁶²³ In pursuit thereof, parties to the *Paris Agreement* are obliged to prepare, communicate and maintain Nationally Determined Contributions to achieve the long-term temperature goal set out in article 2 towards mitigation, taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.⁶²⁴

The desktop study however established that the provisions of the *Paris Agreement* in terms of mitigation, which is the main theme in this research, cannot be feasible and fully implemented without policies relating to public participation, which makes public participation a focus area of this discussion. Article 12 provides that the parties shall cooperate in taking appropriate measures towards enhancing climate change education, training, public awareness, public participation, and public access to information.⁶²⁵ It must take cognizance of the importance of these steps with respect to enhancing actions outlined in the *Paris Agreement*.⁶²⁶ Public participation is therefore a strategic theme towards implementation and fulfilment of the *Paris Agreement*.⁶²⁷ Policy, plans and strategies, that uphold public participation are vital towards reciprocating the relationship between international and national efforts in respect of climate change mitigation.⁶²⁸

It is also recognised that the monitoring of progress of the implementation and fulfilment of the *Paris Agreement*, the UNFCCC and its *Kyoto Protocol* and Nationally Determined Contributions including good practices, priorities, needs and gaps, towards informing the global stocktake under article 14 is of paramount importance.⁶²⁹ Article 14 of the *Paris Agreement* provides a mechanism for monitoring progress and provides that the Conference of the Parties shall periodically take stock of the implementation

⁶²³ See para 2.4.1 above.

⁶²⁴ See para 2.4 above.

⁶²⁵ See Chapter 4 in general.

⁶²⁶ See para 2.4.2 above; see also Chapter 4 in general.

⁶²⁷ Author's analysis.

⁶²⁸ Author's analysis.

⁶²⁹ See Chapter 5 above in general.

of this *Agreement* in a comprehensive and facilitative manner.⁶³⁰ They shall consider mitigation to assess the collective progress towards achieving the purpose of the *Paris Agreement* and its long-term goals, which is referred to as the "global stocktake".⁶³¹ Periodic reports will therefore be made every 5 years to inform the global stocktake beginning 2023.⁶³² The outcome of the global stocktake shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of the *Paris Agreement*, as well as in enhancing international cooperation for climate action.⁶³³ The end of 2021 also brought the Global Climate Pact agreement into existence, which however is not discussed herein, as far as this study was limited to the *Paris Agreement* and its preceding UNFCCC and its *Kyoto Protocol*.

International laws and treaties including the UNFCCC and its *Kyoto Protocol* and the *Paris Agreement* are meant to inform and influence the formulation of legal frameworks at national level. The aim of this research was to establish how, against the above discussed backdrop, the *Paris Agreement* in particular is being implemented and fulfilled through South Africa's climate change laws, with particular reference to three thematic areas, which are mitigation, public participation and monitoring.

The study questioned whether the provisions of the *Paris Agreement* are being implemented and fulfilled in South Africa through climate change law, policies, plans and strategies. The research established that the Constitution provides a foundational basis for the promulgation of laws and policies relating to the protection of the environment.⁶³⁴ South Africa also prepared and communicated its Nationally Determined Contributions to the United Nations Convention on Combating Climate Change secretariat in terms of the provisions of article 4 of the *Paris Agreement* through the NCCR White Paper and its NDCs.⁶³⁵ These demonstrated South Africa's ambitious goals, which are subject to implementation and fulfilment in terms of the

⁶³⁰ See Chapter 5 above.

⁶³¹ See Chapter 5 above in general.

⁶³² See para 2.4.3 above.

⁶³³ See para 2.4.3 above.

⁶³⁴ See para 3.2 above.

⁶³⁵ See para 3.6 of this research.

CBDR-RC principle as a nation.⁶³⁶ The 2011 NCCR *White Paper* highlights the transitioning of South Africa to a climate-resilient and lower-carbon economy and society as a long-term plan.⁶³⁷ The *White Paper* embodies South Africa's commitment to a fair contribution towards stabilizing global GHG concentrations in pursuit of mitigation and to protecting the country and its people from the impacts of inevitable climate change.⁶³⁸ It has also been established that South Africa has put into place some legislation meant to deal with issues relating to climate change mitigation including the NEMA, the NEMAQA of 2004, the 2010 NCCR Green Paper and 2011 NCCR *White Paper*, in an effort to deal with issues relating to climate change mitigation, public participation and monitoring.⁶³⁹ South Africa also awaits the promulgation of its 2018 *Climate Change Bill* into law.⁶⁴⁰ It is important to note the fact that this Bill came after the *Paris Agreement* (2015), therefore it reflects as a mirror of South Africa's position and objectives when it comes to the implementation of the *Paris Agreement* towards mitigation, public participation and monitoring, which are the main themes in this research.⁶⁴¹ The *Climate Change Bill* is meant to build an effective climate change response and the long-term, just transition to a climate resilient and lower carbon economy and society in South Africa.⁶⁴²

In terms of public participation, the research established that provisions have been made, that uphold this principle (being a focus of this research) in NEMA, NEMAQA, the NCCR *Green Paper*, NCCR *White Paper*, and the *National Framework for Air Quality Management*, the *Climate Change Bill* and the EIA Regulations, towards the implementation and fulfilment of the *Paris Agreement*.⁶⁴³

This far an analysis of EIA Regulations however reflected that the EIA Regulations do not require the reports and documents to be made available in the language of choice

⁶³⁶ See principles as outlined in NEMA para 3.3 above.

⁶³⁷ See para 3.6 of this research.

⁶³⁸ See para 3.6 of this research.

⁶³⁹ See paras 3.3, 3.4, 3.5 and 3.6 above.

⁶⁴⁰ See para 3.7 above.

⁶⁴¹ See para 3.7 above.

⁶⁴² See para 3.7 above.

⁶⁴³ See Chapter 4 of this research for more detail.

of the interested and affected parties.⁶⁴⁴ This has been left as a matter for the EIA practitioner's discretion and whether the documents should be simplified is a matter not clearly regulated.⁶⁴⁵

Furthermore, in terms of Monitoring, the research established that South Africa has provided an overarching GwM&E policy which aims at providing an integrated, encompassing framework of Monitoring and Evaluation principles, practices and standards applicable throughout Government, to function as the apex-level information system.⁶⁴⁶ The framework therefore influences monitoring and evaluation mechanisms relating to climate change mitigation and other related factors, as far as the government is involved in relation to service to the public and fulfilment of constitutionally enshrined environmental rights.⁶⁴⁷ It is even more important to add that South Africa's NCCR obliges the DEA in section 12 to publish annual progress reports with regard to monitoring climate change responses.⁶⁴⁸ This represents the primary output of the Climate Change M&E framework and in 2015 the first of these annual report progress reports was published.⁶⁴⁹ The Constitution, GwM&E, the NCCR *Green Paper*, the NCCR *White Paper* and the Climate Change Monitoring and Evaluation Reports have reflected that in terms of monitoring, which is a main theme of focus in this research, South Africa has taken cognisance of the monitoring mechanism towards implementing climate change mitigation which contributes to the global stocktake.⁶⁵⁰ The global stocktake is the monitoring mechanism outlined in the *Paris Agreement*.⁶⁵¹ The 2018 *Climate Change Bill* has the provision for institutional arrangements that has been put in place for the establishment of the Ministerial Committee on Climate.⁶⁵² The Committee comprises of the Minister responsible for planning, monitoring and evaluation in the Presidency, which is a very significant arrangement towards fulfilling

⁶⁴⁴ See discussion in general in para 4.3 above.

⁶⁴⁵ See discussion in general in para 4.3 above.

⁶⁴⁶ See para 5.5 above.

⁶⁴⁷ See para 5.3 above.

⁶⁴⁸ See paras 5.6 and 5.7 above in general.

⁶⁴⁹ See para 5.8 above.

⁶⁵⁰ See Chapter 5 in general.

⁶⁵¹ See also Chapters 2 and 5 of this research in general.

⁶⁵² See para 5.10 above.

the *Paris Agreement*, particularly in reference to monitoring.⁶⁵³ Though the *Climate Change Bill* does not say much regarding other aspects relating to climate change monitoring, the establishment of the Ministerial Committee gives a backbone to the implementation of the *Paris Agreement* in respect of monitoring.

6.2 Recommendations

While this research has shown that South Africa has promulgated and continues to promulgate policies applicable to climate change, that assist in the implementation and fulfilment of the *Paris Agreement*, at the time of writing there is no specific legislation on climate change and the promulgation of the *Climate Change Bill* into a law is highly recommended. The Climate Change Bill does not say much on any other aspects in relation to monitoring and it being the first legislation specifically in climate change. It is therefore recommended that a review be made to include more aspects in relation to monitoring of climate change mitigation. Aspects relating to meaningful public participation towards climate change mitigation ought to be included as well in the *Climate Change Bill*. This should be done with particular regard to availability of information in understood indigenous languages in the nation, to ensure meaningful participation of the public regarding climate change mitigation.

Monitoring of climate change policy implementation is a fairly new concept that may be found lacking towards effective implementation and fulfilment of the *Paris Agreement*. It is recommended that more capacity building of expertise and clarification of methodologies through law and policies towards monitoring be pursued. Further provision of baseline information that supports the implementation of policy monitoring and evaluation will be of paramount importance.⁶⁵⁴ Monitoring, evaluating, reporting, verifying, and certifying (MERVC) guidelines are needed for JI and CDM projects in order to accurately determine their impact on GHG and other attributes.⁶⁵⁵

⁶⁵³ See para 5.10 above.

⁶⁵⁴ Phetla *Monitoring and evaluation* 7.

⁶⁵⁵ Vine, Sathaye and Makundi 2001 *Glob Environ Change* 204.

Burton and Mustelin,⁶⁵⁶ argue that the public at large often appears uninterested and disengaged during policy-making processes. Therefore, creating greater public awareness of climate change and of government policies is of paramount importance to ensure meaningful public participation towards fulfilment of the *Paris Agreement* and the ambitious goals set by South Africa as a country. Climate change mitigation depends on decisions by individual citizens to embrace climate-friendly lifestyles and habits. Hence, participation by and awareness of the public needs a high level of recognition.⁶⁵⁷

⁶⁵⁶ Burton and Mustelin 2013 *Urban Policy and Res* 411.

⁶⁵⁷ NCCR White Paper, 2011 s 49.

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