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Climate Change and South Africa: A Critical Analysis of the *Earthlife Africa Johannesburg and Another v Minister of Energy and Others 65662/16 (2017)* Case and the Drive for Concrete Climate Practices

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ABSTRACT: The findings and recommendations of this article will redound to the benefit of society considering that climate change regulation plays an important role in the promotion of a sustainable environment. The greater demand for a clean and healthy environment justifies the need for more effective regulation of climate change, and this can be achieved through climate change impact assessments. In the High Court case of *EarthLife Africa Johannesburg v Minister of Environmental Affairs and Others*, the court considered what the impact of the Thabametsi Power Project on the global climate and the changing climate will be if it is operated to the expected year of 2060. This judgement highlights the significance, place, and principles of climate change impact assessments in South Africa's environmental law that has its founding principles in the *Constitution of the Republic of South Africa*, 1996. The *Thabametsi*-case contributed to environmental litigation in the manner as to how equality and the rule of law have been addressed in the court. This paper will examine the advances for climate change regulation in a jurisdiction where the Environmental Impact Assessment (EIA) Regulations currently refer to climate change explicitly.

KEYWORDS: Climate change, environmental impact assessment, environment, energy, environmental review

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Introduction

While the current portrayal of climate change is linked with the increased release of atmospheric greenhouse gases (GHGs) and the uncertainty with environmental change, the potential effect of climate change in South Africa is of increasing concern. Globally, the effect of climate change brings about an increase in carbon dioxide (CO_2) as well as other gases, which ultimately allows sunlight to the surface of the earth, but creates a barrier that prevents infrared or heat radiation to escape to space. The increase in carbon dioxide will lead to an equilibrium earth warming of about 2°C to 4°C.[3] Climate change will cause the sea level to rise and extreme climatic events will occur.[31] This means that winter becomes warmer.[31] Climate change will have a great impact on the key sectors in South Africa, namely water, agriculture, and biodiversity. Annual temperatures in South Africa have increased by at least 1.5 times, while globally with 0.65°C over the last five decades. This increase in average temperatures will greatly influence water resources, food security, health, infrastructure and the environment, which includes biodiversity and the ecosystems.[i] The anticipated impacts of climate change in the key sectors are as follows:

- Biodiversity: The grassland biome, which could face considerable infringement by woody vegetation due to the increase in temperature as well as the increase in carbon dioxide.[i]
- Agriculture: The influence of climate change on agriculture will increase the demand for irrigation. Due to the fact that crops are influenced by rainfall, the crops may be negatively influenced since rainfall may differ from summer and winter rainfall regions.[i]
- Water: Frequencies of flooding and droughts are increased if climate change is not mitigated and adapted to. Water is further connected to societies, health and economic factors.[i]

The first part of this article provides the significance, place and principles of climate change in South Africa's environmental law in relation to the *Constitution of the Republic of South Africa*, 1996 (hereafter the Constitution). The discussion will be followed by the introduction of the *EarthLife Africa Johannesburg v Minister of Environmental Affairs and Others* 65662/16 (2017) case (hereafter the *Thabametsi*-case). An analysis will be drawn in terms of the application of Environmental Impacts Assessments (EIA) where climate change is not specifically addressed. After the analyses, a conclusion will be drawn. This paper comprises of a literature review of the relevant textbooks, articles, case law and legislation. Primary and secondary source materials will be subjected to an analysis, which will give rise to the conclusion of the paper.

According to the Intergovernmental Panel on Climate Change (IPCC), climate change refers to a significant variation in the climate itself or a variability that has persisted and is measured over a period.[ii] This climate variation may be caused by natural internal processes or due to external forces[iii]. Climate change may also be caused by the persistent anthropogenic changes that are arranged in the atmosphere or in land use.[iv] However, the United Nations Framework Convention on

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Table 1. Sections explained.

ACT	SECTION	EXPLANATION	REFERENCES
Constitution of the Republic of South Africa, 1996	Section 7(2)	Stipulate that the rights in Chapter of the Constitution must be respected, protected, promoted and fulfilled by all three spheres of Government (which is Local, Provincial and National)	Rautenbach and Venter[xv]
	Section 24	This right protects human health and well-being against environmental harm. It further protects everyone's interest in the environment.	Rautenbach and Venter[xv]
National Environmental Management Act 107 of 1998	Section 2	This section contains principles which will guide decision makers in the EIA process and making decision that will/ may affect the environment.	Endangered Wildlife Trust and Regenesis[13]
	Section 24(O)	This section to require an environmental assessment practitioner to consult state departments that administers the laws relating to the environmental matter at hand.	Department of Environmental Affairs[9]

Climate Change (UNFCCC) states that climate change is the change that occurs in the climate. This change is attributed either directly or indirectly to activities of humans that change the configuration of the global atmosphere. This change in variability is observed over comparable periods of time.[v] Therefore, UNFCCC differentiates between climate change that exists because of human activities, which alters the atmospheric composition and climate variability that is caused by the natural environment.

The impact of climate change extends to both developed and developing countries. The impact of climate change affects all sectors and levels of the global society. The impact, however, can be felt more intensely for the developing countries of the world. The problem that exists with developing countries – South Africa, as a developing country, which can be categorised with social and economic problems[33]–is that these developing countries do not have the means to cope with the hazards associated with climate change. The economies of these developing countries have a dependence on climate sensitive sectors, for example, agriculture, water and other zones. For these developing countries, climate change adaptation must remain in the forefront of sustainable development.[4] South Africa is considered a significant contributor in terms of global emissions, partly owing to South Africa's mining resources and exploration thereof.[vi] South Africa is playing an important role in international climate change negotiations but is part of the exacerbating problem. Sasol's Secunda plant which converts coal into diesel and other fuels is the world's biggest single point emitter of carbon dioxide.[19] Furthermore, emerging characteristics of South Africa are reflected in the growth associated with the generation of dirty energy, which is primarily generated by coal-fired power stations.[vii] Taking into consideration that South Africa has to provide adequate transport, power, communication networks, water and sanitation, and other infrastructure services which relies on fuel combustion, implies that this development will increase GHG emissions. The improvement of these services means that it will improve people's well-being and reduce poverty; however, it produces more carbon dioxide and there is a rise in global emission of GHGs. South Africa, already facing factors that include droughts and floods caused by climate change, will inevitably not deliver these services which will not promote the well-being of people and the reduction of poverty. The fact remains that South Africa is an arid or semi-arid country and the smallest variation in rainfall and temperature would exacerbate the environment. The rise in global emission of GHG will result in risk that countries must adapt to, which is difficult for developing countries (Table 1).[34]

South Africa, being a signatory to the UNFCCC that ratified the Kyoto Protocol and further adopted the Paris Agreement, endorsed the need to mitigate the emission of GHG. Although not formally bound to specific emission targets as recognised under Annex 1 of the UNFCCC, South Africa has adopted formalised targets as determined in South Africa's Intended National Determined Contribution (INDC) to implement climate change measures.[viii] A measure that could also be used in determining the impact of activities on the environment and especially a mitigating factor that could mitigate climate change is an Environmental Impact Assessment (EIA). An EIA is a tool that is used for planning and management purposes in order to promote sustainable development. It provides the decision makers – mostly in South Africa these will be the spheres of government – with information of the specific activity and the affects that the activity will have on the environment.[22] These will serve to decrease the harmful effect of climate change. These measures anticipate that the country will endeavour to diminish its use of dirty energy by implementing long-term improved energy mix.[ix] Furthermore, South Africa also has progressive laws[x] to ensure the alleviation of harmful activities and its effects on the natural environment. The following paragraph will discuss the application of the Constitution and the framework legislation.

Legislative Interpretation: The Constitution

A Constitution is an organic instrument. Although it is enacted in the form of a statute it is *sui generis.* It must broadly, liberally and

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> purposively be interpreted so as to avoid 'the austerity of tabulated legalism' and so as to enable it to continue to play a creative and dynamic role in the expression and the achievement of the ideals and aspirations of the nation, in the articulation of the values bonding its people and in disciplining its Government.[xi]

The Constitution of South Africa is seen as a law which contains the most important rules and rights of the law in connection with the constitutional system of South Africa. The Constitution further confers the duties on governments to fulfil these rules and duties, but also places a limit on the exercise on these rules and rights. The Constitution gives individuals rights and freedoms in the Bill of Rights. Section 24 of the Constitution is seen as one of the rights that is provided to individuals.[16]

The Constitution of South Africa reigns supreme in the Republic and any law that is inconsistent with the Constitution is invalid. Different courts in South Africa have the power to test the constitutional validity of the actions of governments and declare these actions invalid.[xii] One of the rights, as seen in the Bill of Rights, that will be focused on in the study is s24 of the Constitution.

Section 24 reads as follows:

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

Section 24 of the Constitution, which often is also referred to as the environmental right, is separated into two parts, namely section 24(a) and section 24(b). These two parts can also be seen as the rights of a human being to a safe and healthy natural environment and, second, to an environment that must be protected and not degraded. Kidd states that paragraph (a) is an essential human right and that paragraph[xiv] gives every individual the right to his or her health and well-being being protected against harm.[xv] Subsection (b) contains the directive that requires the three spheres of government to take positive steps to attain the right in paragraph (a)[xvi] The interest in the environment of everyone must be conserved, protected and judiciously utilised.[xvii]

In order to understand what exactly must be protected, the term environment will be examined. According to the 0t Act 107 of 1998 (NEMA),[xviii] environment is defined as

> the surroundings within which humans exist and that are made up of -
>
> (i) the land, water and atmosphere of the earth;
>
> (ii) micro-organisms, plant and animal life;
>
> (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
>
> (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.[25]

Kidd is of the opinion that although the definition of environment, as stated above, is not too wide for interpretation, it should not confine itself only to the physical environment.[xix] Du Plessis states that 'the term cannot be limited to the non-human environment, but must be defined broadly to include, for example, socio-economic and cultural dimensions of the interrelationship between people and the natural environment'.[1,xx] The fact remains that everyone is influenced by adverse environmental factors (eg, air pollution) and NEMA makes provision for the fact that air pollution will not only have a negative effect on the physical environment but on human health and well-being as well.

This discussion provides some analysis on the environment and the constitutional framework as seen in s24. It must be remembered that the definition and the environmental right cannot be read in a vacuum. The following paragraph will give an analysis of s24(b) of the Constitution and how it should be interpreted in terms of sustainable development.

Sustainable Development

Section 24(b) of the Constitution is also seen as a legislative measure in the sense that the three spheres of government must ensure that environmental rights are imposed by reasonable legislative and other measures. This was reaffirmed in the case of Grootboom[xxi] where Yacoob J stated,

> The State is required to take reasonable legislative and other measures. Legislative measures by themselves are not likely to constitute constitutional compliance. Mere legislation is not enough. The State is obliged to act to achieve the intended result, and the legislative measures will invariably have to be supported by appropriate, well-directed policies and programs implemented by the Executive. These policies and programs must be reasonable both in their conception and their implementation. The formulation of a program is only the first stage in meeting the State's obligation. The program must also be reasonably implemented. An otherwise reasonable program that is not implemented reasonably will not constitute compliance with the State's obligation.[xxii]

Although it can be seen that s24(b) places a direct responsibility on the state, it is not evident in the wording of the section. It must be remembered that only the state can make and carry out statutory measures.[xxiii] The state has enacted a number of legislations, in which the state attempts to protect the environment and the regulation of harmful impacts on the environment.[xxiv] This is further emphasised in s7(2) of the Constitution where it states that 'the state must respect, protect, promote and fulfil the rights in the Bill of Rights'.

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Section 24(b) of the Constitution realises the concept of sustainable development which is wildly recognised in terms of the World Summit on Sustainable Development or also known as Rio Conference + 10 that was held in Johannesburg.[xxv] South Africa agreed to the Johannesburg Declaration on Sustainable Development and the Johannesburg Plan of Implementation. With agreeing to the above mentioned, South Africa reaffirmed its commitment towards Agenda 21 and meeting the sustainable development goals.[xxvi] Sustainable development[xxvii] can be defined as: 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[xxviii]

The Constitution has values of the Republic[xxix] which attempts to transform a once unjust society. In *President of the Republic of South Africa v Hugo*,[30] Constitutional Court states that

> The South African Constitution is primarily and emphatically an egalitarian Constitution. The supreme laws of comparable constitutional states may underscore other principles and rights. But in the light of our own particular history and our vision for the future, a Constitution was written with equality at its centre. Equality is our Constitution's focus and its organising principle.

Therefore, the Constitution describes how principles and rights should be interpreted.[21] Section 24(b) of the Constitution incorporates sustainable development through referring to the term ecological sustainable development and also by making reference to environmental protection, economic development and social development, which are seen as the fundamental pillars of sustainable development.[xxx] The principle of sustainable development, therefore, creates integration between environmental protection, economic development and social needs.[21] This is reaffirmed by the following:

> South Africa's definition of sustainable development is influenced by the globally accepted definition provided by the Brundtland Commission and which is entrenched in the Constitution. Section 24(b)(ii) of the Constitution guarantees everyone the right to having 'the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development'. South Africa has formalised its definition of sustainable development by including it in law.[xxxi]

Sustainable development was reaffirmed in the case of Fuel Retailers Association of Southern Africa v Director General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province 2007 (6) SA 4 (CC), where the Ngcobo J stated that

> The Constitution recognises the interrelationship between the environment and development; indeed, it recognises the need for the protection of the environment while at the same time it recognises the need for social and economic development. It contemplates the integration of environmental protection and socio-economic development. It envisages that environmental considerations will be balanced with socio-economic considerations through the ideal of sustainable development. This is apparent from section 24(b)(iii) which provides that the environment will be protected by securing 'ecologically sustainable development and use of natural resources while promoting justifiable economic and social development'. Sustainable development and sustainable use and exploitation of natural resources are at the core of the protection of the environment.[14]

The above indicates that s24 can be interpreted in different ways. The first being that the environmental right can be invoked by any person when it is necessary for that person to protect his or her health or well-being. Second, it can be seen as legal standing clause,[5] because if a right (in this case the environmental right) has been infringed, there is a *locus standi* right. The third leg will be that the state is influenced by this right. The state, in making legislative and executive decisions must be influenced by the environmental right. This mean that when the state is fulfilling the environmental right, as deduced from s24 of the Constitution, the state must be informed and regulated to implement and promote this right. The fourth leg is that the environmental right must be interpreted in terms of international and common law. This can be understood in the interpretation of the principle of sustainable development and the application of this principle in South Africa.[xxxii]

NEMA 107 of 1998

According to Principle 17 of the Rio Convention, an EIA is seen as a national tool to be undertaken for planned activities that may have a significant impact on the natural environment. Considering the impact, a competent authority (spheres of government) must make a decision in order to see if the proposed activity can continue or not.

> An EIA is
>
> a procedure used to examine the environmental consequences or impacts, both beneficial and adverse, of a proposed development project and to ensure that these effects are considered in project design. The EIA is therefore based on predictions. These impacts can include all relevant aspects of the natural, social, economic and human environment. The study therefore requires a multidisciplinary approach and should be done very early at the feasibility stage of a project. In other words, a project should be assessed for its environmental feasibility. EIA should therefore be viewed as an integral part of the project planning process. Unlike the environmental audit (EA), which is conducted on existing projects, the EIA is applied to new projects and the expansion aspects of existing projects.[28]

Sands and Peel have a more detailed definition in terms of an EIA and define it as follows:

> A process which produces a written statement to be used to guide decision-making, with several related functions. First, it should provide decision-makers with information on the environmental consequences of proposed activities and, in some cases, programmes and policies, and their alternatives. Secondly, it requires

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> decisions to be influenced by that information. And, thirdly, it provides a mechanism for ensuring the participation of potentially affected persons in the decision-making process.[29]

EIAs are intended to inform decision makers and assist them to make environmentally sound decisions. Therefore, it is important for EIAs to envisage and to assess the impact on the natural environment as well as on the social-economic conditions and cultural heritage in South Africa. Glazewski believes the success of an EIA depends on the fundamental mechanisms, which are public participation, inter-sectoral coordination as well as the contemplation of any alternatives to a planned development.[11]

EIA, in terms of the 2006 to 2010 regulations, had the main objective to introduce time frames where decisions had to be taken. This timeframe included 14 days for administration actions, 45 days for reviewing the minor report and 60 to 105 days for the reviewing of more complex/detailed EIA reports. These 2006 to 2010 regulations, in addition, provided that certain types of activities may be excluded from the authorisation process through the creation of different thresholds.[19] Under these regulations, a provision was made for two types of assessment processes, namely a basic assessment[xxxiii] and a full assessment[xxxiv] process.

EIA, in terms of 2010 to 2014 regulations had the objective that impacts the sensitivity of the receiving natural environment and are treated with more care, therefore, identifying a listing notice that are dedicated to activities planned in predefined sensitive areas.[2] The EIA systems were overburdened by applications that were seen as insignificant activities and, therefore, the listed activities that required environmental authorisation had been revised.[20]

EIA, in South Africa, is a mandatory tool since 1997, which was regulated by the Environmental Conservation Act 73 of 1989 (ECA) and in terms of the NEMA since 2006. The development of the EIA process proceeded at a slower pace in developing countries, but this increased after the Rio Earth Summit, 1992.[6]

Chapter five (5) of NEMA prescribes the process for authorisation under the heading Integrated Environmental Management (IEM) and sets out the aims of IEM. NEMA Regulations in terms of EIAs are also now regulating mining projects.[xxxv] Section 24 of NEMA deals with the authorisation of EIAs and includes the impact of the proposed development on socio-economic conditions as well as listed activities. Section 24(1) specifically deals with the potential consequences or the impacts that activities have on the natural environment and must be considered, investigated, assessed and reported to the competent authority/ies (three spheres of government).

Section 24(O) places peremptory requirements.[xxxvi] Section 24(O) deals with the conditions that must be taken into consideration in deciding environmental authorisation and the official must consider all relevant factors. The factors include

> (i) any pollution, environmental impacts or environmental degradation likely to be caused if the application is approved or refused;
>
> (ii) measures that may be taken-(aa) to protect the environment from harm as a result of the activity which is the subject of the application; and (bb) to prevent, control, abate or mitigate any pollution, substantially detrimental environmental impacts or environmental degradation;
>
> (iii) the ability of the applicant to implement mitigation measures and to comply with any conditions subject to which the application may be granted;
>
> (iv) where appropriate, any feasible and reasonable alternatives to the activity which is the subject of the application and any feasible and reasonable modifications or changes to the activity that may minimise harm to the environment;
>
> (v) any information and maps compiled in terms of section 24(3), including any prescribed environmental management frameworks, to the extent that such information, maps and frame-works arc relevant to the application;
>
> (vi) information contained in the application form, reports, comments, representations and other documents submitted in terms of this Act to the Minister. Minister of Minerals and Energy, MEC or competent authority in connection with the application;
>
> (vii) any comments received from organs of state that have jurisdiction over any aspect of the activity which is the subject of the application; and
>
> (viii) any guidelines, departmental policies and decision-making instruments that have been developed or any other information in the possession of the competent authority that are relevant to the application.[xxxvii]

It is with the aforesaid peremptory requirements of section 24(O) in mind that the wide interpretation thereof needs to include the reflection of climate change in the environmental authorisation of an activity. Modak and Ginoya confirm that despite the need to include climate change assessments in environmental impact assessments, many planners and regulators fail to address the impact of climate change adequately in future planning.[27] Alberti and Susskind confirm the critical need of an EIA to address planning issues and achieving climate change targets.[23]

The significance of climate change impact assessment that needs to be incorporated in functional environmental impact assessment is not novel to the environmental domain but has seen growing support, based on the prevalence of climate change and pronouncement of the effects thereof by international binding legal treaties like the UNFCCC, the Kyoto Protocol and the Paris Agreement[10] Notwithstanding, the aforesaid international instruments directed to mitigate climate change progress in South Africa, it has been hindered to date through the non-development of domestic law or regulations to oblige adherence through the adoption of measures to reduce GHGs and, subsequently, lessen the rampant results of climate change on the environment and humans.

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National Environmental Management: Air Quality Act 39 of 2004 (NEM: AQA)

Currently (in South Africa), the only probable mitigating action in relation to the reduction of GHGs from a statutory perspective has been regulated by the observation of national air quality standards as depicted through the NEM: AQA.

The aforesaid statutes are predominately to regulate air quality and the standards associated therewith rather than being a legal instrument in the combatting of climate change. The same NEM: AQA similarly articulates pollution and environmental dilapidation with consideration of any application for Atmospheric Emission Licences, which is statutorily regulated under section 39(b) of NEM: AQA. Section 39 of NEM: AQA states the factors to be considered by the licencing authorities in approving Atmospheric Emission Licences:

> When considering an application for an atmospheric emission licence, the licencing authority must take into account all relevant matters, including –
>
> (a) any applicable minimum standards set for ambient air and point source emissions that have been determined in terms of this Act;
>
> (b) the pollution being or likely to be caused by the carrying out of the listed activity applied for and the effect or likely effect of that pollution on the environment, including health, social conditions, economic conditions, cultural heritage and ambient air quality;
>
> (c) the best practicable environmental options available that could be taken –
>
> (i) to prevent, control, abate or mitigate that pollution; and
>
> (ii) to protect the environment, including health, social conditions, economic conditions, cultural heritage and ambient air quality, from harm as a result of that pollution.

Section 39(b) of NEM: AQA, likewise, specifically mandates the consideration of pollution or pollution likely to be caused in the carrying out of a listed activity as seen in NEMA and to further consider the probable effect of that pollution on the natural environment.[26] Therefore, in consideration of the understanding and definition of pollution in terms of the NEMA, the emission of GHG is classified as a form of pollution.[xxxviii]

Further requirements in terms of section 39(c) confirm that consideration be given to the prevention, controlling and mitigation of pollution and to protect the environment from harm of the pollution. Section 39(c), therefore, anticipates the acceptance of climate change adaptation and mitigation strategies through the provision of a climate change impact assessment report.

However, although it can be argued that specific observance of climate change is observed under NEM: AQA it is submitted that full adaptation[7] and mitigation[xxxix] can only be assessed under a climate change impact assessment. The approach, therefore, as previously indicated under section 24(O) of NEMA, obligates two processes, namely adaptation and mitigation of which compliance under section 39 of NEM: AQA does not absolve the facilitation of a climate change impact assessment as directed under section 24(O) of NEMA.[xl]

It is argued that actual planning and co-ordination of an adaptation response will necessitate early warning and forecasting for the reduction of disasters and medium-term climate forecasting will identify the future potential resource decline for the long-term climate forecasts.[xli]

The Climate Change Bill (CCB) 2018 defines adaptation as follows:

> 'In relation to natural, human, social and ecological systems, means the process of adjustment to actual or expected climate and its effects, in order to moderate harm or the exploitation of beneficial opportunities, in relation to natural systems, the process of adjustment to actual climate and its effects'.[7]

Mitigation in terms of the CCB, 2018 is defined as follows:

> 'means a human intervention to reduce the emissions of greenhouse gases by sources or enhancing their removal from the atmosphere by sinks'.[xlii]

It is further contended in the National Climate Change Response White Paper that mitigation plans need to correlate actions and set out the intentions on how to accomplish specific emission reduction outcomes as per regulations.[xliii]

Based on the previous discussion, it is common cause that a climate change impact assessment cannot be facilitated without proper consideration of adaptation and mitigation plans, of which the aforesaid is confirmed in the proposed CCB, 2018, which cites statutory requirements that relate to climate change outcomes in the natural environment.

The CCB

The CCB 2018, subsequently, has been circulated by the Department of Environmental Affairs (hereafter DEA) for public comments on June 8, 2018. It is anticipated through the proposed objects and principles in the CCB that the intention of the DEA is to create legislation, which primarily addresses specific processes pertaining to climate change, therefore, regulating the application of adaptation and mitigation strategies.

The aims of the CCB are as follows:

> (a) provide for the coordinated and integrated response to climate change and its impacts by all spheres of government in accordance with the principles of cooperative governance;
>
> (b) provide for the effective management of inevitable climate change impacts through enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to build social, economic, and environmental resilience and an adequate national adaptation response in the context of the global climate change response;

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> (c) make fair contribution to the global effort to stabilize greenhouse gas concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe and in a manner that enables economic, employment, social and environmental development to proceed in a sustainable manner.[xliv]

Further flowing from the principles of the CCB, the rationale behind the CCB is to give effect to the national environmental principles with specific reference to climate change as envisaged by NEMA.

The principles of the proposed Act are as follows:

> The interpretation and the application of this Act must be guided by the-
>
> (a) national environmental management principles set out in section 2 of the National Environmental Management Act;
>
> (b) principles that the climate system should be protected for the benefit of present and future generations of humankind;
>
> (c) principle that acknowledges international equity and each country's common, but differentiated responsibilities and respective capabilities, in the light of different national circumstances; and
>
> (d) need to ensure a just transition for all towards an environmentally sustainable economy and society in the light of national circumstances and development goals.[xlv]

Therefore, deducted from the fundamental objects and principles of the CCB it is clear that the legislator commenced to codify the current shortcomings as pronounced by the honourable court in *EarthLife Africa Johannesburg v Minister of Environmental Affairs and Others.*[12] Said litigation is therefore suggestive of the concept of 'climate litigation' utilised to enforce adaptative measures and the likely consequences in the absence of proper adherence to legislative instruments to achieve climate change outcomes.

Understanding the notion of climate litigation

The *EarthLife Africa Johannesburg v Minister of Environmental Affairs and Others* case is crucial in augmenting the increasing prominence of climate litigation; of which it is suggested that climate litigation has the potential to positively contribute to appropriate regulation of climate change.

The contribution that climate litigation presents is to mitigate the impending risk of climate change seen in the universal context thereof.[18] The United Nations Report on the Status of Climate Change Litigation explains the imperious role of climate litigation in its regulatory context and further analyses the importance of climate litigation not only from a global context, but reflects on climate litigation as presented from different transnational jurisdictions.[32]

Gradual increase of climate litigation is, however, more prevalent in the Global South; of which the same is suggestive of the 'steady proliferation of laws and financial resources focused on mitigation, adaptation, and sustainable development more generally'.[xlvii] Other reasons for the suggested increase of climate litigation could be based on more awareness and the possible enforcement of national instruments in pursuance of international soft law instruments like the Paris Agreement as discussed earlier in the research.[xlviii]

The Role of climate litigation in said regulatory context

Notably thereof are the different roles that climate litigation facilitates and the purposes or projected outcomes that climate litigation serves. The report suggests that climate litigation is consequently regulatory by nature in addressing different linkages associated with climate change; of which 5 trends or five purposes of climate litigation are accordingly categorised.[xlix] The first related trend of climate litigation is to hold governments responsible to their legislative and policy commitments.

Second is the probable linkage of impacts of resource extraction to climate change and said resilience associated therewith. Third, the establishment or confirmation of emissions as 'proximate cause' of specific adverse climate change events. Four on the associated failure to reflect the necessary responsibility; climate litigation offers necessary liability of those who fails to adapt to climate change. Finally, the fifth contaminant of climate litigation allowing the application of the public trust doctrine to climate change.[l]

Government responsibility to holding legislative commitments

Advanced through the acceptance of international agreements by member states; the allowance of climate litigation is decisive to enforce proper adherence to soft law instruments to combat climate change. This can, however, only be achieved when these climate change commitments are articulated by governments and their executive branches confirm regulatory legislation to properly mitigate climate change and implement pursuant adaptation measures to achieve climate conformity.[li] It is suggested that implementation of long-term adaptation has significant advantages for South Africa, which inter alia include purported stabilisation of global CO^2 levels.[15]

Further that even under effective mitigation responses, it is suggested that significant socio-economic implications are expected for vulnerable citizens and the broader society as a whole; of which, Gilder and Swanepoel suggests that South Africa has taken a number of policies, governance and legal steps to ensure that said national contribution represents an extensive contribution to the global efforts.[15] Nevertheless, in absence of the appropriate adaptation; enforcement thereof through climate litigation can been instrumental to enforce national climate commitments.

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The Facts

In the *Thabametsi*-case, the court sought to review and set aside the decision of the Department of Environmental Affairs to grant approval for the construction of a 1200-MW coal-fired power station as well as the Minister's decision to dismiss an appeal by EarthLife. EarthLife maintained the fact that the Department of Environmental Affairs was obliged to consider the climate change impact of the proposed power station before it can grant environmental authorisation. EarthLife stipulated that the Department of Environmental Affairs failed to make a climate change impact assessment.

The Minister in the appeal, acknowledged the fact that the climate change impact of the proposed coal-fired power station was not fully evaluated or considered before allotting the environmental authorisation:

> The Minister in her answering affidavit averred that the Chief Director had adequately considered the climate change effects, but had not conducted a comprehensive assessment, and she imposed condition 10.5 requiring a fuller climate change impact assessment for that reason. She reasoned that condition 10.5 would serve a dual purpose. First, it would enable the gathering of emissions data to be used, inter alia, for monitoring and reporting purposes. Secondly, it would enable the DEA to determine if it was necessary to amend or supplement the conditions of the environmental authorisation to introduce additional mitigation measures, for instance where it was found that the emissions were significantly higher than provided in its carbon budget posed an unexpected and unacceptable health risk to surrounding communities. In the context of the prevailing regulatory regime and socio-economic context, she submitted, her decision cannot be impugned as irrational, unreasonable, or unlawful.[xlvi]

The Minister, in the answering affidavit, stipulated the environmental authorisation by inserting an additional condition to the applicant, by ordering the Minister to commence a climate change impact assessment before any construction is approved.

The High Court held that in terms of section 24(O) of NEMA, there is an obligation on all authorities, which includes the spheres of government to consider all relevant factors in deciding on an application for environmental authorisation, which includes pollution, environmental impacts or environmental degradation that can be caused if the application is either approved or refused. EarthLife, therefore, asserted that the climate change impact of the proposed coal fired power station is a relevant factor to be considered and at the time of the Chief Director's decision, the climate change impact of the power station had not been completely investigated or considered. A climate change impact assessment consists of

> 'A climate change impact assessment in relation to the construction of a coal fire power station ordinarily would comprise an assessment of (i) the extent to which a proposed coal-fired power station will contribute to climate change over its lifetime, by quantifying its GHG emissions during construction, operation and decommissioning; (ii) the resilience of the coal-fired power station to climate change, taking into account how climate change will impact on its operation, through factors such as rising temperatures, diminishing water supply, and extreme weather patterns; and (iii) how these impacts may be avoided, mitigated, or remedied'.[lii]

The High Court further held that NEMA, as any other legislation, must be interpreted consistent with the Constitution.

> 'NEMA, like all legislation, must be interpreted purposively and in a manner that is consistent with the Constitution, paying due regard to the text and context of the legislation. Section 2 of NEMA sets out binding directive principles that must inform all decisions taken under the Act, including decisions on environmental authorisations. The directive principles serve as guidelines (by reference) to which any organ of state must exercise any function when taking any decision in terms of NEMA or any statutory provision concerning the protection of the environment. They guide the interpretation, administration and implementation of NEMA and any other law concerned with the protection or management of the environment. Competent authorities must take into account the directive principles when considering applications for environmental authorisation. The directive principles promote sustainable development and the mitigating principle that environmental damage must be avoided, minimised and remedied. The environmental impact assessment process is a key means of promoting sustainable development, by ensuring that the need for development is sufficiently balanced with full consideration of the environmental impacts of a project with potential environmental impacts. The directive principles caution decision-makers to adopt a risk-averse and a careful approach, especially in the face of incomplete information'.

The High Court held that the Minister should have adjourned the appeal and directed Thabametsi in undertaking a climate change impact assessment for contemplation in the appeal. The court further stated that the Department of Environmental Affairs' decision had to be substituted for the Minister's decision.

EarthLife sought that the environmental authorisation and the appeal decision had to be set aside and that both these processes should be commenced anew. However, the court held that the remedy is not to set aside the environmental authorisation, but to set aside the ruling of the Minister in respect of the ground of appeal. The outcome is therefore to remit the climate change impact for re-evaluation on the ground of new evidence in the climate change report.

Opinion on the Judgement

An implication of this judgement is that all projects that may have a significant climate change impact will be subjected to a climate change impact assessment in future. The judgement established the importance of assessing environmental laws, regulations and the constitutional imperative that is seen in s24. It further establishes the duty on that state to exercise their duties and responsibilities within the parameters of the Constitution, but also in terms of s24 of NEMA.

The honourable court confirmed that although NEM: AQA is contributing to the purpose of mitigating climate change, an atmospheric emission licence as depicted in NEM: AQA does not fully discourse the extent of the anticipated climate change impact report, in terms of s24(O) of NEMA.

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Further confirmation by the judgement is that, even in absence of technical guidelines of specific regulations, the absenteeism of promulgated technical requirements on climate change impact assessments does not lawfully condone parties to abscond from complying to constitutional and international obligations associated with climate change.[liii] Section 2 of NEMA clearly pronounced on the directive principles that need be applied when facilitating a decision concerning the environment to consider the effects of climate change and, furthermore, the requirements of a climate change impact study, which need to address both adaptation and mitigating measures.

Therefore, in absence of a statutory legal duty, an implicit legal duty persists under s24(O) of NEMA to facilitate a climate change impact assessment. The duty, therefore, set forth obligations allowing not only being consistent with the Constitution but also consistent with international law.[liv]

The Minister has no implied power to revocate under NEMA, therefore, all facts be presented and considered in terms of climate change impact assessment needs to be conducted before there can be a decision to approve the listed activity. Suspensive conditions to the decision have no significance in an appeal, which notes that the Minister is *functus officio* after the decision has been taken.

Conclusion

It can be concluded that reasonable progress has been made in South Africa in addressing climate change concerns at national level. The key to unlocking this concern was the establishment and implementation of a climate change impact assessment. This process of a climate change impact assessment holds the potential to unlock the interest in climate change adaptation and mitigation – ultimately to protect and promote sustainable development in the environment and more specifically climate change interventions.

The courts play an extremely important role in the protection and development of the natural environment, which gives result to the promotion of the principle of sustainable development, which also gives effect to the Constitutional environmental right as seen in s24.

It is recognised that without the courts' intervention, although documented in the National Climate Change Response White Paper, the proper execution of adaptation and mitigation strategies by means of a climate change impact assessment could have been further delayed. The absence of effective adaptation and mitigation responses will escalate the levels of damages in South Africa and could further threaten and, even in some cases, reverse development gains made in South Africa.[lv]

The courts have the responsibility to assess, interpret, and develop the environmental right as seen in the Constitution and how we, as well as the state, should apply and adhere to this right and that of s24(O) of NEMA.

It has been further established that this IPP coal plant (Thabametsi) will cost South Africa additional billions compared to a least-cost energy system. It is also shown that Thabametsi coal plant is not needed to meet South Africa's electricity demand and, therefore, there are more cost-effective ways to ensure and adhere to the electricity demand of South Africa. Therefore, the Thabametsi coal plant will excessively pollute the environment and increase the GHG emissions of South Africa, which will have an impact on commitment that South Africa has towards international law (e.g. Paris Agreement).

It can be deliberated on the effectiveness of the EIA systems as well as the manner of performance, productivity of processes, fairness of procedures, cost-effectiveness of the operation to deliver a particular result and achieving an environment that is not harmful for present and future generations.

Author Contributions

Both authors contributed to the analyzing and implementation of the research and to the writing of the manuscript.

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Notes

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vi. Department of Environmental Affairs–National climate change response White Paper:26.
vii. See note. xiv.
viii. EarthLife Africa Johannesburg v Minister of Environmental Affairs and Others 65662/16 (2017) para 35.

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x. M. Kidd *Environmental Law* 2nd Edt 24.
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> NEMA established a new form of environmental regulation and environmental governance in South Africa. NEMA aims to: define overarching and generic principles in which sectoral-specific legislation is embedded; enhance co-operative environmental governance among fragmented line ministries; provide for a broad flexible framework to address environmental issues and to respond to changes in socio-economic and ecological parameters.

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xxiii. See note. xxi.
xxiv. Feris L. 2008 'Constitutional Environmental Rights an Under-Utilised Resource' in *South African Journal on Human Rights* 36. The National Environmental Management Act 107 of 1998 (NEMA) states that

> To provide for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state; and to provide for matters connected therewith

Other legislation that addresses specific sectoral environmental concerns have been enacted in different areas: Biodiversity: the National Environmental Management: Protected Areas Act 57 of 2003 (NEM: PAA), the National Environmental Management: Biodiversity Act 10 of 2004 (NEM: BA) and the National Forests Act 84 of 1998 (NFA); Air quality: the National Environmental Management: Air Quality Act 39 of 2004 (NEM: AQA); Marine resources: the Marine Living Resources Act 18 of 1998 (MLRA); Water resources: the National Water Act 36 of 1998 (NWA); and Mining and energy on the environment: the Minerals and Petroleum Resources Development Act 28 of 2002 (MPRDA).

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xxix. S1(a) of the Constitution stipulate that the values are: 'one sovereign, democratic state founded on the values of human dignity, the achievement of equality and the advancement of human rights and freedoms'.
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xxxi. Department of Environment and Tourism A National Framework for Sustainable Development in South Africa 2008 page 14.
(1) When interpreting the Bill of Rights, a court, tribunal or forum – (a) must promote the values that underlie an open and democratic society based on human dignity, equality and freedom; (b) must consider international law; and (c) may consider foreign law. (2) When interpreting any legislation, and when developing the common law or customary law, every court, tribunal or forum must promote the spirit, purport and objects of the Bill of Rights. (3) The Bill of Rights does not deny the existence of any other rights or freedoms that are recognised or conferred by common law, customary law or legislation, to the extent that they are consistent with the Bill
xxxii. M. Kidd *Environmental Law* 2nd edt 26.
xxxiii. Regulation No 385 & 286 of 21 April 2006 in GG No. 28753.
xxxiv. Regulation No 387 of 21 April 2006 in GG No. 28753.
xxxv. See liv.
xxxvi. Maccsand (Pty) Ltd v City of Cape Town and Others 2012 (4) SA 181 (CC) at para 12:

> Section 24(O) sets out the criteria to be considered when a competent authority considers an application for authorisation. In peremptory terms the section requires the Minister for Water Affairs and Environment or the Minister for Mineral Resources to comply with NEMA and take into account factors enumerated in the section when determining an application for an authorisation.[24]

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xxxix. Definition of 'mitigation' under Section 1 of the Climate Change Bill.
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xlv. Section 3 of the Climate Change Bill, 2018.
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