ADVOCATING FOR AN ENVIRONMENTAL SUSTAINABILITY STANCE TO CLIMATE CHANGE GOVERNANCE IN NIGERIA.

A thesis submitted for the Degree of Doctor of Philosophy in Law to the University of Buckingham.

OLUWADEMILADE O. ISHOLA

1200034

2020

DECLARATION OF ORIGINALITY

I hereby declare that my thesis entitled "Advocating for an Environmental Sustainability Stance to Climate Change Governance in Nigeria", is the result of my own work and includes nothing which is the work done in collaboration except as declared in the preface and specified in the text accordingly, and is not substantially the same as any that I have submitted, or is concurrently submitted for a degree at the University of Buckingham or any other University except as declared in the preface and specified in the text. I further declare that no substantial part of my thesis has already been submitted or is concurrently submitted for a degree at the University of Buckingham or any other University except as declared in the preface and specified in the text.

OLUWADEMILADE O. ISHOLA

SIGNATURE

ABSTRACT

Climate change is arguably the biggest threat to human existence. This global problem has the potential to make our home, earth, uninhabitable. Signs of this being a growing reality is evidenced by more frequent extreme weather changes, increased environmental disasters, more outbreaks of diseases and a growing general degeneration of the environment. Scientific findings have established a link between human activities such as industrialisation; extraction of natural resources; deforestation; and mechanisation, with increasing levels of greenhouse gases in the atmosphere. This has in turn propelled the problem of climate change. The global community, understanding the magnitude of the climate change problem, has seen the need to institute governance instruments advocating for the adoption of environmentally friendly steps aimed at reducing the global level of emissions. States like the UK and Kenya, understanding the need for all countries to take national action to give humanity a fighting chance, have adopted an environmental sustainability stance to governing climate change. This has come in form of enacting laws, passing policies and taking stringent legal action, within their respective territories, which prioritise environmental protection. This approach is however not universally subscribed to by countries like Nigeria. With widespread poverty and high levels of underdevelopment, Nigeria has prioritised an economic centred stance over an approach that focuses on environmental protection. The country also has a mono-economic system wherein political, economic and general governance decisions are carried out with the mind of safeguarding the oil and gas sector. This has led to the subpar governance of climate change within Nigeria. This thesis, aligning with the view that professes the need for all States to partake in the governance of climate change, seeks to advocate an environmental sustainability approach to climate change governance for Nigeria. This will be done mindful of the factors potentially hindering Nigeria from adopting this stance, like the country's reliance on oil and gas, which is a high emitter of greenhouse gases. Lessons will be drawn from the governance

steps taken by the UK and Kenya to govern climate change nationally through the adoption of an environmental sustainability approach.

DEDICATION

This thesis is dedicated to my parents. I am eternally grateful to God for blessing me with both of you. Your support and prayers fuel my every action.

ACKNOWLEDGEMENT

My sincere appreciation goes to God Almighty for giving me the strength to complete this thesis. I am also grateful to Him for blessing me with supportive people who have, in one way or another contributed in ensuring this research journey was a successful one.

Special thanks goes to my darling Ifedolapo. You have indeed being a sunshine in my life. Your love and prayers are immeasurable.

I wish to acknowledge, with great respect, my supervisor, Dr Hephzibah Egede. Thank you for all your nuggets of wisdom, patience and guidance all through the three years. Thank you for staying by my side all through the ups and downs. I deeply appreciate you.

I am grateful for the support of Prof John Hatchard, in his role as my second supervisor in the early days of my research. Thank you for taking the time to talk, guide and encourage me. I am extremely grateful to Mr. Jae Sundaram for agreeing to take over as my second supervisor. Thank you for your time and cooperation.

Special thanks goes to Dr Francis Grimal and Dr Gar Yein Ng for your invaluable insights and suggestions all through my time at the university. I appreciate both of you for taking the time to shed light on different progression opportunities and for going out of your way to ensure my programme ran smoothly. I am grateful to Prof Susan Edwards, Margaret Darrell and other members of staff in the University of Buckingham School of law.

Final thanks goes to my family and friends whose names are too numerous to mention here. You have all helped and encouraged me in so many different ways. I really appreciate you all.

CONTENT

DECLARATION OF ORIGINALITY	2
ABSTRACT	3
DEDICATION	5
ACKNOWLEDGEMENT	6
CONTENT	7
PRIMARY SOURCES	13
ABBREVIATIONS	

CHAPTER 1 - INTRODUCTION	
1.1 Introduction	
1.2 Research Background	
1.3 Research Topic	
1.4 Research Aim	
1.5 Research Objectives	
1.6 Research Questions	
1.7 Scope of the Research	
1.8 Research Methodology	
1.8.1 Doctrinal Approach	
1.8.2 Historical Approach	
1.8.3 Comparative Approach	
1.8.4 Interdisciplinary Approach	40
1.9 Impact of Research	44
1.10 Structure of Research	45

2.1 Introduction	49
2.2 Perspectives on the Existence of Climate Change	53

2.3.1 The Regulatory Problem: The Climate System	57
2.3.2 The Regulatory Problem: The Changing Climate	61
2.3.3 The Regulatory Problem: The Effects of Climate Change	65
2.4 Sustainable Development: Environmental Sustainability	73
2.4.1 The Principle of Sustainable Development	73
2.4.2 Pillars of Sustainable Development	76
2.4.3 Promoting Environmental Sustainability	81
2.4.4 Criticism of Sustainable Development	83
2.5 Climate Change and Environmental Sustainability: Schools of Thought	
2.5.1 Anthropocentric View	91
2.5.2 Ecocentric View	96
2.5.3 Environmental Stewardship	99
2.6 African Theoretical Perspective on Climate Change and Environmental Su	ıstainability
	101
2.7 Conclusion	106

CHAPTER 3 – INTERNATIONAL GOVERNANCE ON CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY

NVIRONMENTAL SUSTAINABILITY	
3.1 Introduction	
3.2 Governance	111
3.2.1 Governance: International Environmental Law	111
3.2.2 Governance: Climate Change	
3.3 Climate Change Governance and Environmental Sustainability	under International
Environmental Law	
3.3.1 Crowding Out and Crowding In	
3.3.2 Climate Exceptionalism	127
3.4.1 Rationale for International Action	
3.4.2 Rationale for State Ownership	

3.4.3 Rationale for Multiscalar Action	139
3.5 Conclusion	144

CHAPTER 4 – INTERNATIONAL GOVERNANCE FRAMEWORKS ON CLIMATE CHANGE: GROWING FOCUS ON ENVIRONMENTAL SUSTAINABILITY	146
4.1 Introduction	146
4.2 International Developmental Awareness of the Climate Change Problem	147
4.3 United Nations Framework Convention on Climate Change	153
4.3.1 Negotiating the UNFCCC	153
4.3.2 Elements of the UNFCCC	159
4.3.2.1 Objective of the UNFCCC	159
4.3.2.2 Guiding Principles of the UNFCCC	161
4.3.2.3 National Commitments under the UNFCCC	167
4.3.2.4 Institutional Structures Established by the UNFCCC	170
4.3.3 Perceived Reception of the UNFCCC	171
4.4 The Kyoto Protocol	175
4.4.1 Negotiating the Kyoto Protocol	175
4.4.2 Elements of the Kyoto Protocol	177
4.4.2.1 National Commitments under the Kyoto Protocol	177
4.4.2.2 Flexible Mechanisms under the Kyoto Protocol	182
4.4.3 Perceived Reception of the Kyoto Protocol	185
4.5 Interim Global Accords and Agreements	189
4.5.1 From Marrakesh to Bali	190
4.5.2 From Copenhagen to Cancun	194
4.5.3 From Durban to Lima	198
4.6 Paris Agreements	201
4.6.1 Elements of the Paris Agreement	203
4.6.1.1 Legal Nature of the Paris Agreement	204

4.7 Conclusion	219
4.6.2 Perception of the Paris Agreement so far	215
4.6.1.5 Implementation and Compliance under the Paris Agreement	213
4.6.1.4 Efforts to cater for Loss and Damage under the Paris Agreement	211
4.6.1.3 NDCs under the Paris Agreement	209
4.6.1.2 Objective of the Paris Agreement	207

CHAPTER 5 – ADOPTING AN ENVIRONMENTAL SUSTAINABILITY APPROACH TO CLIMATE CHANGE GOVERNANCE: COMPARATIVE ANALYSIS OF STATE ACTION

5.1 Introduction	222
5.2 Climate Change and Environmental Sustainability: North-South Dichotomy	v223
5.2.1 Perception of the Global North	231
5.2.1.1 Background: Economic focused governance	232
5.2.1.2 Climate Change in the Global North	234
5.2.1.3 Different Governance positions in the Global North	235
5.2.2 Perception of the Global South	241
5.2.2.1 Background: Fragmented Past	243
5.2.2.2 Climate Governance: Emission Inspired Growth over Environmental Sust	ainability
	247
5.3 Adoption of an Environmental Sustainability Approach to Climate	247 <i>Change</i>
5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State	247 <i>Change</i> 251
5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK	247 <i>Change</i> 251 253
 5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK 5.3.1.1 Background: Economic-First Approach to Governance 	247 <i>Change</i> 251 253 254
 5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK 5.3.1.1 Background: Economic-First Approach to Governance 5.3.1.2 Environmental Sustainability Legal Actions within the UK 	247 <i>Change</i> 251 253 254 256
 5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK 5.3.1.1 Background: Economic-First Approach to Governance 5.3.1.2 Environmental Sustainability Legal Actions within the UK 5.3.2 Climate Change Governance in Kenya 	247 <i>Change</i> 251 253 254 256 261
 5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK 5.3.1.1 Background: Economic-First Approach to Governance 5.3.1.2 Environmental Sustainability Legal Actions within the UK 5.3.2 Climate Change Governance in Kenya 5.3.2.1 Country Profile of Kenya 	247 <i>Change</i> 251 253 254 256 261 261
 5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK 5.3.1.1 Background: Economic-First Approach to Governance 5.3.1.2 Environmental Sustainability Legal Actions within the UK 5.3.2 Climate Change Governance in Kenya 5.3.2.1 Country Profile of Kenya 5.3.2.2 Environmental Sustainability approach to Climate Governance 	247 <i>Change</i> 251 253 254 256 261 261 262
 5.3 Adoption of an Environmental Sustainability Approach to Climate Governance in a Global North and Global South State 5.3.1 Climate Change Governance in the UK 5.3.1.1 Background: Economic-First Approach to Governance 5.3.1.2 Environmental Sustainability Legal Actions within the UK 5.3.2 Climate Change Governance in Kenya 5.3.2.1 Country Profile of Kenya 5.3.2.2 Environmental Sustainability approach to Climate Governance 5.4 Conclusion 	247 <i>Change</i> 251 253 254 256 261 261 262 262

CHAPTER 6 – CLIMATE CHANGE GOVERNANCE AND ENVIRONMENTAL SUSTAINABILITY IN NIGERIA
6.1 Introduction
6.2 Evolution of Environmental Governance in Nigeria: Economic Gain over
Environmental Sustainability272
6.2.1 Colonial Era (1900-1960)
6.2.2 Post-Independence Era (1960-1987)277
6.2.3 Environmental Awakening Era (1987-present)
6.3 Effects of Climate Change in Nigeria
6.4 Climate Change Governance in Nigeria
6.4.1 Global Climate Change Governance: Nigeria's Position
6.4.1.1 Nigeria's Dualist System and Global Climate Governance
6.4.2 National Governance of Climate Change in Nigeria
6.5 Hindrances to the Adoption of an Environmental Sustainability Approach to Climate
Change Governance in Nigeria
6.5.1 Nigeria's Reliance on Oil and Gas
6.5.2 Climate Change Illiteracy and Poverty
6.5.3 Corruption and Political Instability
6.6 Conclusion 313

	.515
7.1 Introduction and Research Questions	315
7.2 Climate Change: Environmental Sustainability Approach to Governance	316
7.3 Nigeria's Governance of Climate Change: Economic Enrichment over Environme	ntal
Sustainability	320
7.4 Environmental Sustainability Approach to Governing Climate Change: Lessons j	rom
the UK and Kenya	.324

7.5 Recommending an Environmental Sustainability Approach to Climate	Change
Governance for Nigeria	328
7.5.1 Enact a Climate Change Law	329
7.5.2 Encourage Public Participation and Education	332
7.5.3 Establish an Independent Climate Change Agency	333
7.5.4 Utilize Market Forces to Encourage Businesses	333
7.5.5 Invest in Clean Energy	334
7.6 Conclusion	335

BIBLIOGRAPHY	37
--------------	----

PRIMARY SOURCES

TABLE OF CASES

International Cases

Gabčíkovo-Nagymaros Project (Hungary v Slovakia) (1997) ICJ Rep

United States v. Canada (Trail Smelter Case) 3 RIAA 1905 (1941)

Nigerian Cases

Abacha v. Fawehinmi (2000) 6 NWLR (Part 660) 228

Attorney General of Ondo State v. Attorney General of the Federation (2002) 9 NWLR (Part 772) 382

Gbemre v. Shell Petroleum Development Company Nigeria Ltd and others (2005) FHC/B/CS/53/05; AHRLR 151

Ibidapo v. Lufthansa Airlines (1997) 4 NWLR (Part 498) 124

Mhwun v. Minister of Health and Productivity (2005) 17 NWLR (Part 953) 155

Other Jurisdictions

Massachusetts, et al v. Environmental Protection Agency, et al (2007) 549 U.S.

Plan B Earth and Others v. Secretary of State for Business, Energy and Industrial Strategy [2018] EWHC 1892 (Admin) (UK)

Save Lamu et al v. National Environmental Management Authority and Amu Power Co. Ltd (2016) TRIBUNAL APPEAL NO. NET 196 of 2016 (KEN)

TABLE OF LEGISLATION

International Laws

United Nations Universal Declaration of Human Rights (1948)

Vienna Convention on the Law of Treaties (1969)

African (Banjul) Charter on Human and People's Rights (1981)

Montreal Protocol on Substances that Deplete the Ozone Layer (1987)

Lomé Convention (1989)

The Rio Declaration on Environment and Development (1992) United Nations Framework Convention on Climate Change (1992) Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997) Paris Agreement on Climate Change (2015)

Nigerian Laws Criminal Code Law (1916) Public Health Act (1917) Nigeria Forest Act (1937) Minerals Act (1945) Oil Pipelines Act (1956) Agricultural (Control of Importation) Act (1964) Hydrocarbon Oil Refineries Act (1965) Oil in Navigable Waters Act (1968) Sea Fisheries Act (1971) (repealed) Exclusive Economic Zone Act (1978) Land Use Act (1978) Associated Gas Re-injection Act (1979) Energy Commission of Nigeria Act (1979) African Charter on Human and Peoples' Rights (Ratification and Enforcement) Act (1983) Endangered Species (Control of International Trade and Traffic) Act (1985) River Basin Development Authorities Act (1986) Federal Environmental Protection Agency (FEPA) Act (1988) Harmful Waste Act (1988) Oil Pipelines Act (1990) Sea Fisheries Decree (1992) Environmental Impact Assessment Act (1992) Treaties (Making Procedure, Etc.) Act (1993) The Constitution of the Federal Republic of Nigeria (1999) (as amended)

National Environmental Standards and Regulations Enforcement Agency (Establishment) Act of Nigeria (2007)

Other Jurisdictions The Constitution of Kenya (2010) Climate Change Act (2016) (KEN) Climate Change Levy (General) Regulations (2001) (UK) Climate Change Act (2008) (UK) Climate Change Agreements (Administration Facilities) Regulations (2012) (UK) Constitution of the United States of America (1789) Raker Act 1913 (USA)

ABBREVIATIONS

- ADP --- Ad Hoc Working Group on the Durban Platform for Enhanced Action
- AOSIS --- Alliance of Small Island States
- AWG-KP --- Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol
- AWG-LCA --- Ad Hoc Working Group on Long-Term Cooperative Action under the Convention
- CACAM --- Central Asia, Caucasus, Albania and Moldova
- CCC --- Committee on Climate Change
- CDM --- Clean Development Mechanism
- CMP --- Conference of the Parties Serving as the Meeting of Parties to the Kyoto Protocol
- CO₂ --- Carbon Dioxide
- COP --- Conference of Parties
- ECN --- Energy Commission of Nigeria
- ECOSOC --- United Nations Economic and Social Council
- EIA --- Environment Impact Assessment
- EIG --- Environmental Integrity Group
- EPA --- Environmental Protection Agency

EU --- European Union

FEPA --- Federal Environmental Protection Agency

GNI --- Gross National Income

GNP --- Gross National Product

HDI --- Human Development Index

ICJ --- International Court of Justice

IMF --- International Monetary Fund

INCFCCC --- Intergovernmental Negotiating Committee for a Framework Convention on Climate Change

INDCs --- Intended Nationally Determined Contributions

IPCC --- Intergovernmental Panel on Climate Change

KEN --- Kenya

LDCs --- Least Developed Countries

mmt --- Million Metric Tons

NCCC --- National Climate Change Council

NCCRS --- National Climate Change Response Strategy

NDCs --- Nationally Determined Contributions

NESREA --- National Environmental Standards and Regulations Enforcement Agency

NGOs --- Non-Governmental Organizations

- OPEC --- Organization of Petroleum Exporting Countries
- SDGs --- Sustainable Development Goals

UK --- United Kingdom

UN --- United Nations

UNCED --- United Nations Conference on Environment and Development

UNDP --- United Nations Development Programme

UNEP --- United Nations Environment Programme

UNFCCC ---- United Nations Framework Convention on Climate Change

UN-REDD+ --- Unite Nations Reducing Emissions from Deforestation and Forest Degradation Plus

US/USA ---- United States of America

USGCRP --- United States Global Change Research Program

WMO --- World Meteorological Organization

CHAPTER 1 - INTRODUCTION

1.1 Introduction

Change is a universal constant. The truth in this assertion is visible when examining how the human population has developed. There have been increases in world population; advancements in science; improvements in technology; increased diversity in wealth sources; and growth of mega cities. These stand as some examples of human propelled changes. Due to an underlying human nature of wanting to improve and develop, the trajectory of these changes are still on the rise.

This history of change and our constant drive to improve and develop has, in some ways, had a negative ripple effect on the global environment. The global environment, which serves as the spring board upon which most human endeavours are achieved, was historically viewed as a source of resources with little to no intrinsic need for protection. The result of this history of neglect and prioritisation of economic enrichment, is unintended and largely unforeseen environmental problems.

Arguably, the most publicised and commented upon environmental problem is the issue of climate change. The effects of climate change are already being felt in different parts of the world and at various degrees. The magnitude of the problem, if not addressed, increases the possibility of the world becoming uninhabitable for human existence. With constant scientific findings painting the dire possibility of this worst case scenario becoming a reality, the international community and States have looked to governance as a way to address the climate change problem.

Increased urgency has led to a gradual realisation that a hard line stance, which prioritizes an environmental protection mind-set, is needed in governance of climate change to give the human race a fighting chance. This means that all States, irrespective of their level of development, will need to adopt this environmental sustainability governance mind-set for real success to be achieved in climate change governance.

In view of ultimately advocating and possibly setting out how an environmental sustainability stance can be achieved in Nigeria, this introductory chapter will start off by laying out the foundation and the direction taken in this thesis. This will be done by: showcasing the background of the research; explaining the research topic; aims of the thesis; objectives of this thesis; the questions that drive the thesis; the scope of the thesis; the methodologies utilized to carry out the research; the envisioned impact this research will have on the field of law; and how this thesis is structured.

1.2 Research Background

Human being's reliance on the environment cannot be overemphasised. Human survival is highly dependent on the environment in terms of the air we breathe, the water we drink and even the food we eat. The environment does not only serve as a springboard for survival, it also serves as an instrument of growth, development and wealth creation.¹ The importance of the environment to human existence has become more pronounced over the years due to constant population increase.

The United Nations (UN) carried out a population growth study wherein it was stated that in the year 1990, global population was about 5.3 Billion. In 2017, the population had grown to

¹ Naveen Kumar Arora, 'Environmental Sustainability: necessary for survival' (2018) 1 Environmental Sustainability 1.

about 7.6 Billion.² The increase in population plus the zeal for constant improvement and growth, has resulted in increased demands placed on the environment. This on its own cannot be considered as a bad or improper thing in light of the need for human development and sustenance. However, issues are bound to arise when human being's main focus is on what can be extracted from the environment rather than on care and respect for the environment.

Focus on industrialisation, deforestation, urbanisation, increased exploitation of resources and mechanised farming; stand out as examples of some human activities which, even though help maintain the survivorship of the human race and have also increased growth and development, have negatively impacted the environment.³ This impact to the environment has been brought about gradually through years of human prioritization of an economic centred outlook and the side lining of environmental care and protection.

Marie-Louise Larsson⁴ succinctly captures this situation by stating that "...*it is clear that all human activities have effects, including negative and harmful, on the environment*"⁵. Such negative impacts have resulted in global environmental changes. Example of some of these global environmental changes or anomalies attributable to human led activities or anthropocentric actors range from ozone depletion, loss of biodiversity, ocean pollution and air pollution.⁶ Arguably, the biggest example of a global environmental anomaly is the issue of climate change.

² United Nations Department of Economic and Social Affairs, *World Population Prospects: The 2017 Revision* (UN Department of Public Information, 21 June, 2017).

 <www.un.org/development/desa/publications/graphic/wpp2017-global-population> accessed 23 February 2018
 ³ Ayo Tella, 'Understanding Environmental Issues for Better Environmental Protection' in Anthony Kola-Olusanya, Ayo Omotayo et al (eds), *Environment and Sustainability: Issues, Policies & Contentions* (1st edn, University Press 2011) 84.

⁴ Marie-Louise Larsson, 'Legal Definitions of the Environment and of Environmental Damage' (1999) 35 Stockholm Institute for Scandinavian Law 155.

⁵ ibid

⁶ Mark Stafford Smith, 'Responding to Global Environmental Change' in Gabriel Bammer (eds), *Change!* : *Combining Analytical Approaches with Street Wisdom* (ANU Press 2015) 29.

Climate change is a global issue which has been accentuated by decade long neglect and practices by human beings leading to artificial increases in the level of greenhouse gases in the atmosphere. Greenhouse gases have existed in the atmosphere, in trace quantity, since the early days of human existence.⁷ These gases naturally keep the Earth's surface warm and habitable. They have been likened to a greenhouse glass utilized in gardening because they act as a layer around the Earth ensuring the entrance of sunlight while preventing heat from escaping.⁸

Some examples of these gases are; carbon dioxide, nitrous oxide, chlorofluorocarbons, water vapor and methane. There has, however, been an artificial rise in the level of these gases in the atmosphere due to anthropocentric actions which in turn has led to environmental imbalances resulting in global climatic changes.⁹ Fumes from means of transportations (cars, trucks, planes and ships), fumes from industries, gas flaring, deforestation and oil exploration; all serve as some examples of anthropocentric factors fuelling climate change.¹⁰

Examples of the resultant effects of climate change are seen around us in the form of increased flooding in low lying lands due to melting of arctic ice, loss of habitation, outbreak of diseases, droughts and in some cases, extreme weather changes and increased frequency of fire outbreaks. Global analysis show several plants blooming earlier in spring than before and animals migrating earlier than they used to in record proportions. Such changes have affected other vital interactions between species.¹¹

⁷ Latake T. Pooja, Pawar Pooja and Anil C. Ranveer, 'The Greenhouse Effect and its Impacts on Environment' (2015) 1(3) IJIRCT 333.

⁸ ibid.

⁹ Oluduro Olubisi Friday, 'Climate Change – A Global Perspective: The Case of Nigeria' (2012) 5(3) Journal of Politics and Law 33.

¹⁰ A. O. Kokorin, 'Impact on the Nature' in I.E. Chestin and Nicholas A. Collof (eds), 'Russia and Neighboring Countries: Environmental, Economic and Social Impacts of Climate Change' (2008) WWF 64.

¹¹ Stuart Bell, Donald McGillivary, Ole W. Pedersen, Emma Lees and Elen Stokes, *Environmental Law* (9th edn, OUP 2017) 530.

"We have arrived at a moment of decision. Our home - Earth - is in grave danger. What is at risk of being destroyed is not the planet itself, of course, but the conditions that have made it hospitable for human beings".12

The above statement by the former Vice President of the United States of America (USA), Al Gore, succinctly captures the grave potential danger both present and future generations face due to the threat of climate change. The problem climate change poses to humanity, if not addressed, dwarfs the notion of having a sustainably viable world for future human existence. It is not, however, totally doom and gloom. Improved scientific understanding of how the climate works, has propelled global consciousness towards the need to institute governance regimes aimed at combating climate change and reducing the level of greenhouse gases in the atmosphere.

The international community, understanding the gravity of the climate change problem, has set out different international governance initiatives aimed solely at governing the threat of climate change. These global initiatives have increasingly leaned towards adopting a more environmental sustainability stance to climate change governance. The term environmental sustainability is one of the pillars of sustainable development, a concept made famous by a commission established by the UN.

Set up in 1983 and dissolved in 1987, the World Commission on Environment and Development, popularly called the Bruntland Commission, was one of the first global initiatives to propose the global adoption of a sustainable development outlook in global governance. The Commission came up with one of the most universally accepted definitions of sustainable development stating that this approach aims "... *to ensure that it meets the needs*

¹² Al Gore, 'We've Arrived at a Moment of Decision' (Huffington Post, 25 May, 2011)

<www.huffingtonpost.com/al-gore/were-arrived-at-a-moment_b_161627.html> accessed 18 January 2018.

of the present without compromising the ability of future generations to meet their own needs".¹³

Andrea Ross¹⁴, one of the foremost writers on sustainable development, further broke the concept of sustainable development into three pillars: environmental sustainability; social sustainability; and economic sustainability.¹⁵ Human history has shown a tendency to focus on economic sustainability and, to some extent, social sustainability with little regard given to promoting environmental sustainability.¹⁶ These negligent or skewed mind-set has largely contributed to the increase in the level of greenhouse gases in the atmosphere resulting in the changing of the global climate.

In view of safeguarding present and future generations, the global community has established some global governance initiatives to combat climate change which, arguably, show an increased focus in promoting an environmental sustainability stance to governance. This stance of promoting an environmental focused mind-set to governing climate change in the global arena was first showcased with the creation of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992.

The UNFCCC was signed by 197 UN member countries and it came into force on the 21st of March 1994. The UNFCCC encouraged States to aim for "... *stabilization of greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropocentric interference with the climate system*"¹⁷. The UNFCCC was herald as the birth of global climate

¹³ Robert Kates, Thomas Parris and Anthony Leiserowitz, 'What is Sustainable Development? : goals,

indicators, values and practice' (2005) 47(3) Environment: Science and Policy for Sustainable Development 8. ¹⁴ Andrea Ross, 'Modern Interpretations of Sustainable Development' (2009) 36(1) Journal of Law and Society 32.

¹⁵ ibid

¹⁶ Andrea Ross, Sustainable Development law in the UK: from rhetoric to reality? (Routledge 2012) 11.

¹⁷ United Nations Framework Convention on Climate Change 1992 Art 2.

change governance.¹⁸ However due to widespread criticisms of the UNFCCC, which was rooted in the soft and unbinding approach taken by it, a new global instrument was enacted. This was the Kyoto Protocol. The Kyoto Protocol was adopted in Kyoto, Japan in 1997 and came into force in 2005.

The Protocol showcased a global acknowledgment of the need to increase the environmental sustainability stance to global climate change governance by introducing timelines and emission reduction targets for developed countries.¹⁹ The potential success of the Protocol was nipped very early when the highest global emitter of greenhouse gases at the time, the USA,²⁰ withdrew from it. This was based on the perception of the Protocol being unfair on the US due to the fact that it omitted placing obligations on developing countries like Nigeria while requiring developed countries to carry a higher obligation of reducing their emissions.²¹

The perceived failure of the Kyoto Protocol led to various meetings and negotiations between countries aimed at devising a new globally accepted governance document for climate change governance. This resulted in the creation of the Paris Agreement. The Paris Agreement entered into force on the 4th of November 2016. Notable UN member countries, the USA²² and China, who are also amongst the highest global emitters of greenhouse gases, have signed on to the agreement.

¹⁸ Aaron Ezroj, 'Climate Change and International Norms' (2011) 27 Journal of Land Use and Environmental Law 72.

¹⁹ Kyoto Protocol 1997 Art. 3 (1).

²⁰ Chitzi C. Ogbumgbada, 'The Paris Agreement: an imperfect but progressive document' (2016) 8 International Energy Law Review 320.

²¹ Quirin Schiermeier, 'The Kyoto Protocol: Hot Air' (2012) 491 Nature 656

<https://www.nature.com/polopoly_fs/1.11882!/menu/main/topColumns/topLeftColumn/pdf/491656a.pdf> accessed 30 April 2019.

²² It should be pointed out here that the USA, under the leadership of President Donald Trump, had rejected the Paris Agreement in 2017. The President has however stated that he is open to renegotiating the position of the USA with the United Nations. See http://www.bbc.co.uk/news/world-us-canada-42642331 accessed 7 March 2018.

It should be noted that prior to the signing of the Paris Agreement, the UNFCCC and the Kyoto Protocol put the responsibility of combating climate change on the developed nations and avoided placing obligations on developing nations.²³ This has however been changed under the Paris Agreement which approaches combating climate change as a global problem needing all States to take some level of governance responsibility in view of ensuring positive impact.²⁴ The Agreement sets out deadlines and expectations for all States.²⁵

This most recent approach to global climate change governance can arguably be said to showcase an increased acknowledgment of the need to take an environmental sustainability stance to governing climate change so as to ensure more positive results are achieved. Taking such a stance has not been one universally subscribed to especially by developing countries. This is due to the perception that taking such a stance could potentially negatively impact their search for growth and development in the face of high levels of poverty and widespread underdevelopment. Hence, these countries have the tendency to gravitate towards prioritizing an economic growth mind-set over an environmental protectionist approach to governance.

Nigeria, the subject matter of this thesis, is a prime example of a country in this position. The country has shown a global understanding of the need to govern climate change, by being a signatory to the different major international governance initiatives set up to combat the problem. The country has however been hesitant to take a hard line stance on climate change nationally. Nigeria is largely considered the most populous black nation in the world with an ever growing population.

²³ Kola Odeku and Edson Meyer, 'Climate Change Surge: Implementing Stringent Mitigation and Adaptation Strategies in South Africa' (2010) 54(2) Journal of African Law 159.

²⁴ The transitional development in what is expected from developing countries like Nigeria would be explored in more detail in chapter 4 of this work.

²⁵ Lavanya Rajamani, 'Ambition and differentiation in the 2015 Paris Agreement: interpretative possibilities and underlying politics' (2016) 26 I.C.L.Q 492.

As at 1960, the year Nigeria gained independence from colonial rule, the population of the country was less than fifty million (50 million). The population has considerably grown wherein in 2008 the estimated population of the country was about one hundred and seventy million (170 million).²⁶ Nigeria is a country blessed with a rich environment with a landmass of about 923,768 sq. km and good access to water sources making it the fourteenth (14th) largest country in Africa. It is blessed with flora and fauna of different types, species and natural resources of different kinds.²⁷

In spite of the human and natural resources available in the country, there exist high levels of poverty; lack of widespread education; and political instability. In a bid to cater for the ever growing population and in view of attaining growth and development, Nigeria has often subscribed to prioritizing an economic first mind-set over a mind-set that accentuates environmental sustainability. The discovery of crude oil in commercial quantity in 1956, further fuelled the country's strong prioritization of an economic centred mind-set over an environmental centred one.²⁸

The discovery of oil gave Nigeria access to a well sought after natural resource and a new avenue of wealth creation. The new wealth source changed the political economic structure of Nigerian to one that mirrored a mono-economic position wherein the oil and gas sector became the main economic sector of the country with other sectors, like agriculture and tourism, being deprioritised. Following on from this, the country has, in its political and general governance decision making, sort to prioritise and safeguard this economic sources.

²⁶ S. I. Omofonmwan and G. I. Osa-Edoh, 'The Challenges of Environmental Problems in Nigeria' (2008) 23(1) J. Hum Ecol. 53.

²⁷ ibid 55.

²⁸ Brian Pinto, 'Nigeria During and After the Oil Boom: A Policy Comparison with Indonesia' (1987) 1(3) The World Bank Economic Review 420.

Prioritisation of this economic source has been done not minding, and sometimes feigning ignorance, of the negative effects on the environment. This goes in line with the economic first approach taken by Nigeria which has led to the country increasingly being seen as one of the main contributors of greenhouse gases in Africa. Other examples showcasing this economic first mind-set in Nigeria are: deforestation; improper handling of solid waste; unsustainable agricultural practices; and aggressive exploration of resources.²⁹

Despite this approach and mind-set subscribed to by Nigeria, there exists different examples of the effects of climate change already playing out within the country. There has been increased desertification in the Northern part of the country; erosion and coastal flooding in the Southern part of the country; and general loss of biodiversity and increased pollution of the Nigerian environment.³⁰ It will however be wrong to conclude that Nigeria is a country void of the understanding of a need to cater for the environment and take a hardline stance to climate change governance.

The grundnorm of the Nigerian legal system, the Nigerian Constitution, provides that "*the State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria*".³¹ Based on this mandate, the Nigerian government has gone on to enact different laws and establish environmental agencies specifically aimed at governing the environment within the country. The most recent nationwide agency, the National Environmental Standards and Regulations Enforcement Agency (NESREA), was created in

²⁹ Gozie S. Ogbodo and Ngozi F. Stewart, 'Climate Change and Nigeria's Sustainable Development of Vision 20-2020' (2014) 20 Ann. Surv. Int'l & Comp. L. 17.

³⁰ Michael Adetunji Ahove, 'Environmental Education in Nigeria' in Anthony Kola-Olusanya, Ayo Omotayo et al (eds), *Environment and Sustainability: Issues, Policies & Contentions* (1st edn, University Press 2011) 15.

³¹ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 20.

2007³² with the responsibility of ensuring the protection and development of the environment; biodiversity conservation; and sustainable development of Nigeria's natural resources.³³

However, due to the predominant economic focused mind-set and government decisions geared towards maximising the oil and gas sector, the effectiveness of this agency, and some of the country's environmental laws, has largely been questionable.³⁴ This outlook to governance is also playing out in the governance of climate change within the country. Even though Nigeria is a signatory to the different global initiatives to govern climate change, there exists very limited national governance initiatives to tackle the problem.

This thesis set out to advocate for a meaningful governance of climate change for Nigeria with the adoption of an environmental sustainability approach which aims to prioritize the protection and care of the environment. This will be done by first understanding and explaining the science of climate change so as to showcase the seriousness of the problem. This will be followed by a look at the international and some national steps taken to govern climate change, highlighting the gradual move and acceptance of the need to take a hard line approach to climate change governance for there to be meaningful results.

By establishing the seriousness of the problem and showcasing the growing consensus of the need to adopt an environmental sustainability approach to governance, this thesis aims to set out practical legal governance steps a developing country, like Nigeria, can adopt to govern the threat of climate change nationally.

 ³² National Environmental Standards and Regulations Enforcement Agency (Establishment) Act of Nigeria 2007
 No.25 Laws of the Federal Republic of Nigeria (Herein after NESREA Act 2007), s 1.
 ³³ ibid s 2.

³⁴ A. O. Obabori, A. O. Ekpu and B. P. Ojealaro, 'An Appraisal of the Concept of Sustainable Environment under Nigerian Law' (2009) 28(2) J. Hum Ecol. 138.

1.3 Research Topic

The thesis is titled: "Advocating for an Environmental Sustainability Stance to Climate Change Governance in Nigeria".

This research centres on climate change as a global environmental issue which potentially has a worldwide impact needing urgent governance action from States. This is captured in the title of the thesis which advocates for climate change to be governed through an environmental sustainability stance with Nigeria being the focus country. The focus is on how the adoption of environmental sustainability governance practices can help a country like Nigeria effectively join in the global fight against climate change. The thesis acknowledges that environmental sustainability, as one of the pillars of sustainable development, can be viewed in two main ways.

Firstly, environmental sustainability can be viewed as a utopian-like concept which a society should strive for. Secondly, environmental sustainability can be viewed as a legal concept which professes for the prioritising of environmental care and protection in societal governance. For the purpose of this thesis, environmental sustainability is viewed as a legal concept to be adopted in combating climate change.

In line with this, Nigeria is examined to see how a developing country can possibly adopt an environmental sustainability stance to govern climate change nationally, in view of meaningfully reducing the global levels of greenhouse gases. Nigeria is a country not oblivious of a need to govern climate, as evidence by the country being a signatory to different international governance initiatives on climate change. Nigeria is however focused on attaining economic enrichment with the oil and gas sector playing a major role in influencing the decision making process of the country.

1.4 Research Aim

The aim of this thesis is to set out environmental sustainability steps a developing country like Nigeria can adopt to govern climate change and ensure the reduction of greenhouse emission levels within its territory. The thesis adopts the assumption that Nigeria, like most States, would naturally seek out economic growth and development while potentially neglecting environmental protection and care.

Based on this assumption, this thesis aims to profess practical environmental sustainability legal steps for Nigeria, which prioritise environmental protection, in the national governance of climate change. This will start by highlighting the seriousness of the global climate change problem in view of supporting the argument in favour of adopting this hardline approach to governance. International governance initiatives, which have over the years signalled a growing understanding of the need for this approach, will also be examined.

Furthermore, developed and developing countries like the United Kingdom (UK) and Kenya, who have taken this environmental sustainability approach, will be looked at for possible governance lessons for Nigeria. This will be done in full consciousness of the uniqueness of Nigeria as a country reliant on a publicised source of greenhouse emissions, oil and gas, while also combating a myriad of developmental and social problems.

1.5 Research Objectives

(1) To establish the seriousness of the global of climate change and the need for an adoption of an environmental sustainability approach to governance.

- (2) To understand the different rationales for governing climate change either as a national issue, global problem or through a multiscalar approach.
- (3) To analyse the development of the international governance regimes on climate change showcasing the gradual adoption of an environmental sustainability governance approach.
- (4) To showcase how, generally, developed and developing countries perceive the adoption of an environmental sustainability stance in governing and combating the climate change problem.
- (5) To scrutinize Nigeria's position on climate change governance and its view on adopting an environmental sustainability stance in governing the problem.
- (6) To showcase how Nigeria, through the adoption of an environmental sustainability governance approach, can effectively reduce its level of greenhouse gases and combat climate change.

1.6 Research Questions

The following are the questions aimed to be answered at the end of this research thesis:

- (1) Why is climate change a serious global problem requiring the adoption of an environmental sustainability approach to governance?
- (2) At what level of governance, internationally or nationally, is climate change most effectively governed? Is a multiscalar governance approach a more viable way by which climate change can be effectively governed?

- (3) How have the international regulatory frameworks, specifically established to combat the threat of climate change, fared and how have they showcased a gradual adoption of an environmental sustainability stance to governance?
- (4) How have developed and developing countries perceived the adoption of environmental sustainability as the approach to be utilized in the governance of climate change?
- (5) What is the status of climate change governance in the oil and gas-centric Nigeria? Is this developing country adopting an environmental sustainability approach to climate governance?
- (6) What environmental sustainable legal steps can a developing country like Nigeria adopt to combat climate change and reduce the amount of greenhouse gases it emits?

1.7 Scope of the Research

The ultimate aim of this research is to establish the seriousness of climate change requiring the need for Nigeria to adopt a more hard line environmental sustainability stance to govern the problem. It is important, in line with achieving this aim, for a clear definition of the scope of this thesis due to the broad nature of the research topic. This research is a legal research which will prioritise the examination of the laws, rules, cases and legal writings related to climate change governance and the adoption of an environmental sustainability approach to governance.

In full awareness of the fact that the study and understanding on climate change originates from scientific findings and writings, this research will look, to a limited extent, to the science on climate change as reference, so as to gain a better understanding of the problem. The scientific

writings on climate change would be examined, not through the lens of a scientist, but as a way of establishing why climate change is a serious problem that needs to be regulated and governed by law. The examination of the science is also sought to establish how the economic centred nature of human history has contributed to the changing climate.

It is the view of this research that referencing the science of climate change will aid in answering the stated research questions and in attaining the ultimate goal of this research. The interplay between the economic and political position of the countries will also be examined. The use of this field is primarily to establish how Nigeria's mono-economic position influences its climate change governance actions.

There will also be the examination of the various international governance steps to combat climate change. This thesis will limit this examination to: the UNFCCC; the Kyoto Protocol; and the Paris Agreement. The examination of these global legal documents will be to highlight the progression of the international governance on climate change showcasing the strengths and weaknesses of the various initiatives. The examination will also be limited to highlighting the gradual transition of these initiatives to becoming more environmental sustainable.

Nigeria, the key case study of this research, will be examined to showcase how having an economic-first outlook and being heavily reliant on the oil and gas sector is negatively impacting the country's adoption of a hardline approach to climate change governance. In line with achieving credible examples that Nigeria can possibly learn from, this thesis will carry out a general comparative analysis between developed and developing countries to understand and showcase the different legal perceptions and approaches taken to combat climate change through an environmental sustainability approach. The UK and Kenya will be the main countries used to exemplify how a developed and a developing country are utilizing an

environmental sustainability legal approach to combat climate change. The governance steps carried out in both countries will be examined.

1.8 Research Methodology

Setting out the method through which an academic research would be undertaken is essential. The methodology chosen will help guide how the research work develops. Due to the subject matter of this research, the following methodologies will be utilized in the development of this thesis: the Doctrinal approach; the Historical approach; the Comparative approach; and the Interdisciplinary approach.

1.8.1 Doctrinal Approach

The Doctrinal research approach can be defined as *"research which provides a systematic exposition of the rules governing a particular legal category, analyses the relationship between rules, explains areas of difficulty and perhaps, predicts future developments"*³⁵. Simply put, the Doctrinal approach involves the use of existing case law and existing legislation relevant to the issue(s) researched on so as to explain and possibly find answers relevant to the topic. This involves analysis of the 'black-text law' relevant to the subject matter.³⁶ This method takes on a two-part process wherein the laws relevant to the subject matter are first discovered and then analysed towards finding answers to the stated research questions.³⁷

³⁵ Terry Hutchinson and Nigel J. Duncan, 'Defining and Describing what we do: Doctrinal Legal Research' (2012) 17 (1) Deakin Law Review 101.

³⁶ Paul Chynoweth, 'Legal Research' in Andrew Knight and Less Ruddock (eds), *Advanced Research Methods in the Built Environment* (Wiley-Blackwell 2008) 29.

³⁷ Hutchinson and Duncan (n 35) 110.

The Doctrinal approach is ideally utilized in this research because it allows for a critical evaluation to be carried out of the current status of the 'black-text-law' relating to climate change and environmental sustainability. Through this approach, laws and cases relating to climate change governance originating globally or nationally, can be examined in view of understanding the different levels of openness towards adopting an environmental sustainability stance to governance.

The approach also ensures that Nigeria's, the case study country of this thesis, governance approach, in terms of case law and legislation, can be scrutinized in order to show the lax stance of the country towards climate change. All the examinations of the various 'black-text-laws' would ultimately contribute to answering the stated research questions and achieving the ultimate objectives of this thesis which is to proffer possible environmental sustainability governance steps adoptable by Nigeria to govern climate change.

1.8.2 Historical Approach

The Historical approach is an approach that is generally very popular with historians. It involves the process of carrying out research by analysing and examining past records, artefacts or data.³⁸ Adoption of this method of research to a legal based research would be devoid of tracing artefacts or remains of historical sites but rather getting information on the subject matter through a look at the plethora of scholarly write ups and past legal documents related to the research being undertaken.³⁹

Adoption of this method will primarily involve the use of both physical and online library sources to discover secondary sources like commentary on cases, journal entries, write-ups in

³⁸ Louis Reichenthal Gottschalk, *Understanding History: A Primer of Historical Method* (2nd edn, Random House Inc. 1969) 15.

³⁹ Hutchinson and Duncan (n 35) 117.
news articles and even past academic literature relevant to the subject matter of this research. The Historical approach is ideal for this research because it enables an evaluation of past writings and commentaries on climate change and environmental sustainability. This approach gives room to the developmental understanding of the process of climate change through the study of scientific write-ups on the subject.

It also allows for the understanding of how governance on climate change has developed both globally and nationally. The plethora of legal writing will enable the understanding of how different countries, developed and developing, have handled climate change governance and their willingness to adopt an environmental sustainability approach to governance. The approach therefore enables an in-depth understanding of how the governance of climate change has evolved over time while also serving as an avenue through which environmental sustainability governance steps can be developed for Nigeria to combat climate change.

1.8.3 Comparative Approach

The Comparative approach can broadly be defined as the comparative analysis of social entities through the use of quantitative and qualitative techniques. These social entities could range from cross-national comparisons, demographic comparisons, ethnic comparisons or even political comparisons.⁴⁰ The ultimate goal of utilizing this approach is to discover similarities and differences between 'test subjects' so as to draw conclusions from findings.⁴¹

This methodology enables a legal research to comparatively study and observe how selected countries are dealing with the same issue through their own legal steps. This may involve a comparison of the societal factors prompting the creation or adoption of legal steps between

⁴⁰ Melinda Mills, Gerhard G. Van de Bunt and Jeanne de Bruijn, 'Comparative Research: Persistent Problems and Promising Solutions' (2006) 21(5) International Sociology Association 621.

⁴¹ M. Adams and J. Griffiths, 'Against "Comparative Method": Explaining Similarities and Differences', in M. Adams and J. Boutiff, *Practice and Theory in Comparative Law* (CUP 2012) 43.

different countries in order to tackle a stated issue. The ultimate aim is to discover the best legal step to adopt in order to tackle a situation either by picking from the pool of compared countries or suggesting a totally new step to cover the weaknesses present in the existing legal steps.

Due to the fact that no two countries are totally the same, most comparative analysis ought to be done mindful of the different peculiarities of the examined countries. Adopting such a mindset is helpful when attempting to answer research questions and fashion out solutions. In light of this, an aspect of the comparative legal approach, referred to as Legal Transplant, is worth talking about. Alan Watson⁴² is widely credited to be the father of the concept which he first wrote about in 1974 which is now seen as *'central to the study of comparative law*⁴³. Legal transplants can simply be explained as the process of borrowing, exchanging and sometimes copying legal ideas and initiatives either from one nation to the other or between national and international law.

This could further be broken down into Vertical Diffusion (Vertical Legal Transplant) and Transnational Diffusion (Transnational Legal Transplant).⁴⁴ Vertical Diffusion is where laws are transplanted or copied from international treaties, agreements or protocols into the laws of a nation. This type of Vertical Diffusion is also called Downward Diffusion because it involves the domesticating or internalization of international laws, treaties or agreements into national laws of a State.⁴⁵

⁴² Alan Watson, *Legal Transplants: An approach to Comparative Law* (2nd edn, University of Georgia Press 1993) 22 in Jonathan B Weiner, 'Something Borrowed for Something Blue: Legal Transplants and the Evolution of Global Environmental Law' (2001) 27 Ecology Law Quarterly 1296.

 ⁴³ Gilles Cuniberti, 'Enhancing Judicial Reputation through Legal Transplants: Estoppel Travels to France' (2012) 60(2) the American Journal of Comparative Law 383.

⁴⁴ Anna Dolidze, 'Bridging Comparative and International Law: Amicus Curiae Participation as a Vertical Legal Transplant (2015) 26(4) European Journal of International Law 851.

⁴⁵ ibid 852.

Vertical Diffusion could also be seen the other way round where the law of a state(s) can be the source of inspiration for the creation of international laws, agreements, norms or treaties. This type of Vertical Diffusion is also called Internationalization. Transnational Diffusion on the other hand is a situation where the laws of a country are diffused or transplanted to become part of the laws of another country.⁴⁶ Legal Transplant has been very central in the development of climate change and general environmental governance with Natasha Affloder⁴⁷ terming it "contagious environmental law-making"⁴⁸.

The contagious approach of creating a suitable environmental governance regime for a State by understanding, fine-tuning and adopting what is found in other States, would be utilized here to fashion possible legal steps for Nigeria that accentuates an environmental sustainable stance to climate change governance. This will be done mindful of the uniqueness of Nigeria.⁴⁹ In line with achieving this, the UK and Kenya will be examined as comparative countries which Nigeria can learn from, in view of developing its national climate change governance regime.

The UK is an ideal country to look at based on the fact that it stands as one of the world leaders in the battle against climate change. Nigeria, apart from being a one-time colony of the UK, based her legal system and most of her laws on those found in the UK.⁵⁰ This shows that Nigeria's legal history is highly connected to the UK.⁵¹ Kenya on the other hand is a developing country which shares a very identical history with Nigeria. Both countries were colonized by

⁴⁶ ibid 852 – 853.

 ⁴⁷ Natasha Affolder, 'Contagious Environmental Lawmaking' (2019) 31(2) Journal of Environmental Law 187.
 ⁴⁸ ibid.

⁴⁹ Helen Xanthaki, 'Legal Transplants in Legislation: Diffusing the trap' (2008) 57 International Comparative Law Quarterly 659.

⁵⁰ Akintunde Olusegun Obilade, *The Nigerian Legal System* (Sweet & Maxwell 1979) 17.

⁵¹ Charles Mwalimu, *The Nigerian Legal System: Volume I* (Peter Lang Publishing 2005) 3.

the UK and have both adopted the English legal system.⁵² Kenya is examined as a developing country making strides to combat climate change.

1.8.4 Interdisciplinary Approach

"The complexity of climate change issues translates itself into a need for interdisciplinary approaches to first achieve a more comprehensive vision of climate change and second to better inform the decision-making processes".⁵³

In line with the above statement, carrying out a research work on an issue like climate change will require borrowing knowledge from other disciplines, irrespective of the fact that this research is one based in law. This is because climate change, apart from having a global impact, cuts across almost all disciplines. Therefore, in order to undertake a proper analysis of the issue, climate change, and in view of answering the set out research questions, the Interdisciplinary research approach will be utilised in this research.

The Interdisciplinary approach to carrying out research can be said to fall under one of the four classes of disciplinary interaction in research undertakings. This was opined by Anna Blanchard and Jean-Paul Vanderlinden⁵⁴ who stated that when a research is to involve other disciplines, there exists different levels of interactions which they classified as: Pluridisciplinary; Multidisciplinary; Interdisciplinary; or Transdisciplinary.⁵⁵ This can be likened to a scale wherein Pluridisciplinarity stands as the top and Transdisciplinarity at the end of the scale with the remaining two models of interaction staying in the middle of the scale.

⁵² Michael Nyongesa Wabwile, 'The Place of English Law in Kenya' (2003) 3(1) Oxford University Commonwealth Law Journal 51.

⁵³ Anne Blanchard and Jean-Paul Vanderlinden, 'Pre-requisites to Interdisciplinary Research for Climate Change: Lessons from a participatory action research process in Ile-de-France' (2013) 16 (1/2) Int. J. Sustainable Development 1.

 ⁵⁴ Anne Blanchard and Jean-Paul Vanderlinden, 'Dissipating the Fuzziness around Interdisciplinarity: The case of Climate Change research' (2010) 3(1) SAPIENS 1 http://sapiens.revenue.org/990> accessed 10 May 2018.
 ⁵⁵ ibid 2.

Pluridisciplinarity is the general, individualistic mode of research where the different disciplines coexist but have no interaction.⁵⁶ In short, standing at the beginning of the scale, there is no interaction at all with other disciplines when a research is undertaken at this stage. This could be the situation at a university where different disciplines in form of departments are housed within the same institution carrying out different research works independent and free from each other.⁵⁷

Multidisciplinary research is a step below Pluridisciplinarity. This level of research is such that there exists a common research theme or case study which is researched on by a set of different disciplines within the boundaries of those respective disciplines.⁵⁸ There exists no cross interaction or overlapping amongst the various disciplines. This is perfectly exemplified with the Intergovernmental Panel on Climate Change (IPCC) which carries out different forms of research and produces different publications on climate change.⁵⁹

The publications are usually in the form of different working groups. For example, there is a working group to analyse the scientific impact of climate change while there is another working group to examine the social impact of climate change.⁶⁰ Multidisciplinarity is closely followed by the Interdisciplinary approach to carrying out a research in terms of level of interaction.

The Interdisciplinary research approach is such that there exists a common study theme, for example climate change, in which different disciplines research about and utilise knowledge, methods, tools, rules and concepts from other disciplines to further the research.⁶¹ There exists

60 ibid 2.

⁵⁶ ibid.

⁵⁷ ibid.

⁵⁸ Irma J. Kroeze, 'Legal Research Methodology and the Dream of Interdisciplinarity' (2013) 16(3) PELJ 50.

⁵⁹ Blanchard and Vanderlinden (n 54) 2.

⁶¹ ibid.

a higher level of interaction while still maintaining the core original discipline when a researcher utilises the Interdisciplinary research method.

Transdisciplinary model of research on the other hand is a very rare approach to carrying out a research. This is where two or more disciplines merge together resulting in a totally new discipline.⁶² This 'new discipline' will have its own research methods, rules, codes and tools which have come about as a result of the merging of the tools, models and concepts of the various disciplines.⁶³ It should be noted that the main difference between Multidisciplinarity, Interdisciplinarity and Transdisciplinarity when undertaking a research work is the level of interaction between disciplines irrespective of it being an individual or a group research.⁶⁴

When a lawyer or law academic, for example, wishes to carry out a research on a particular subject matter like climate change and the Multidisciplinary approach is used, he/she would inform someone else from another discipline to research on climate change as well. This will however be done independent of each other and might even result in a co-publication of the different results of the research findings.⁶⁵

When it comes to the adoption of an Interdisciplinary approach, following the example of a lawyer or a law academic carrying out a research on a subject matter like climate change, it will mean a research primarily carried out based on tools and methods found in law with a secondary adoption of scientific knowledge, methods and concepts to ensure a more holistic research.

⁶² Kroeze (n 58) 51-52.

⁶³ Blanchard and Vanderlinden (n 54) 2.

⁶⁴ Kroeze (n 58) 52.

⁶⁵ Norma R. A. Romm, 'Interdisciplinary Practice as Reflexivity' (1998) 11(1) Systematic Practice and Action Research 64.

While Transdisciplinary approach when adopted can be exemplified where a lawyer and a scientist work together to research a subject matter like climate change in such a way that both the methods, concepts and rules of both disciplines overlap causing the creation of a completely new and distinct separate discipline infused with law and science. Examples of such a distinct discipline is Legal Philosophy which is an infusion of both law and philosophy.⁶⁶

The Interdisciplinary approach to carrying out a research is one inspired by an understanding that some issues, like climate change, may not be holistically dealt with if researched solely through the lens of one particular discipline.⁶⁷ This approach perceives that some complex research issues transcend disciplines. Such issues require a reference to multiple disciplines, even if the knowledge base of the research is in law, to ensure a fully appreciative and multi-layered research is achievable.⁶⁸

Therefore the adoption of the Interdisciplinary approach, in this research, will allow for the borrowing and application from disciplines such as science and political economics. The knowledge base from these other disciplines, will enable for a holistic understanding of climate change and environmental sustainability, as it relates to recommending legal governance for countries like Nigeria. It should however be noted that the researcher does not hold himself as an expert in science or any other highlighted discipline used in this thesis,⁶⁹ but rather one with the consciousness of the need to include knowledge from other disciplines in order to attain a credible and well-rounded legal research work.⁷⁰

⁶⁶ Kroeze (n 58) 54.

⁶⁷ Julie Thompson Klein, 'Interdisciplinary Needs: The Current Context' (1996) 45(2) Library Trends 135.

⁶⁸ Romm (n 65) 65.

⁶⁹ Authors like Kroeze have opined that interdisciplinary research is usually embarked upon by a researcher who is an expert in more than one discipline. Kroeze (n 58) 51.

⁷⁰ Klein (n 67) 135.

1.9 Impact of Research

This research seeks to be a blueprint for developing countries in effectively combating climate change through the adoption of legal governance steps that accentuate an environmental sustainability approach. Climate change is a well-documented global issue with vast ramifications requiring the need for proper governance steps so as to increase the potential of effectively combating the problem. Developing countries suffer from a myriad of economic and social deficiencies which has prompted their unwillingness to prioritize environmental related issues over economic gain.

Developed countries, on the other hand, usually have a more advanced economic and social structure which can and has enabled some of them take more significant roles in climate change governance. Due to a mix of the high levels of poverty in developing countries and the higher financial clout of the developed countries, developing countries are more geared towards delegating the governance of climate change to their developed country counterparts while they focus on economic development and growth.

This thesis takes the position that for there to be effective governance of climate change, all countries, irrespective of their level of development, need to play a role in climate change governance. Developing countries need to adopt a level of climate change governance which accentuates an environmental sustainability stance. This is to ensure that they remain mindful of combating climate change and reducing the level of greenhouse gases in the atmosphere in their search for development.

Nigeria is taken as the case study of this research. The country's high level of poverty and reliance on a celebrated greenhouse emitter, oil and gas, stands as some justifications for the choice of Nigeria in this study. Nigeria also has a history of side-lining environmental

governance for economic gain and development. This thesis aims to highlight the possible hindrances hampering a developing country like Nigeria from adopting an environmental sustainability stance to climate change governance. The thesis will conclude by proposing legal governance steps which developing countries, like Nigeria, can adopt to govern climate change. These steps will be founded on an environmental sustainability approach which ensures effective reduction in the level of greenhouse gases emitted within the country.

1.10 Structure of Research

The thesis is arranged in seven chapters. Chapter one is the introductory chapter of the thesis. This chapter consists of an introduction and the background to the research. The background gives a general look at what the research is all about by highlighting the seriousness of the climate change problem and the need for an environmental sustainability approach to governance. The background also highlights the international community's response to climate change governance and Nigeria's position.

The background is followed by a brief explanation of what the research topic is all about. This is followed by the overarching aim of this research and the objectives sought to be achieved by this research. The cardinal questions upon which this research is based are stated and is followed by the scope of this thesis. The method by which the research would be carried out is also included in this chapter. The impact the researcher aims to achieve by carrying out this research is also stated. Finally the way the whole thesis is to be structured is also included in this chapter.

Chapter two is titled: the Theoretical and Legal Perspectives of Climate Change and Environmental Sustainability. This starts with an introduction of what the chapter is about which is to understand the regulator problem of climate change and the principle of environmental sustainability. This will involve delving into how the climate change problem developed. Much of the examination here will involve examining the science of climate change in view of establishing the seriousness of the problem and the need for governance.

Upon examining how the problem of climate change developed, the chapter will then focus on the principle of environmental sustainability. This will involve the examination of the principle as one of the pillars of sustainable development and the criticisms levelled against the principle. This will be followed by an examination of the different schools of thought on climate change governance linking to the position which accentuates a hard line governance approach. The chapter will be concluded with a look at the theoretical African perspective on the issue of climate change and environmental sustainability.

Chapter three is titled: International Governance on Climate Change and Environmental Sustainability. The chapter seeks to understand the way climate change has been governed so far. This will involve first understanding how international climate change governance relates to the wider international environmental law. This will lead to the discussion relating to how the international governance of climate change requires an environmental sustainability approach to governance. Further analysis is carried out to establish if climate change is best suited and governed as either an international or a national issue.

Chapter four is titled: International Governance Frameworks on Climate Change: Growing Focus on Environmental Sustainability. This chapter sets out to analyse the historical development of the international laws on climate change showcasing the gradual transformation and adoption of an environmental sustainability approach to governance. The chapter will begin by understanding how climate change moved from just being a scientific problem into being an international problem that needs to be governed. The result of the appreciation of the need to govern climate change led to the creation of different governance frameworks: the UNFCCC; the Kyoto Protocol; and the Paris Agreement. All these different frameworks will be examined with emphasis placed on the strengths and weaknesses of each new framework. The frameworks will also show how the international community has increasingly adopted a more hard line approach to climate change governance through the creation of each international framework.

Chapter five is titled: Adopting an Environmental Sustainability Approach to Climate Change Governance: a Comparative Analysis of State Action. This chapter aims to showcase how developed and developing countries perceive the adoption of an environmental sustainability stance in governing and combating the problem of climate change. This will involve an analysis of the perception of climate change governance amongst developed and developing countries.

The analysis will also show the lack of uniformity within the two groups of countries in the adoption of an environmental sustainability approach to climate change governance. The chapter will conclude by examining a developed and a developing country which are both adopting an environmental sustainable legal approach to climate change governance.

Chapter six is titled: Climate Change Governance and Environmental Sustainability in Nigerian. This chapter aims to scrutinize Nigeria's position on climate change governance and its view on adopting an environmental sustainability approach in governing the problem. The evolution of environmental governance in Nigeria will be examined. The impact of having a mono-economic political economic system focused on oil and gas, will be highlighted in line the country's tendency to prioritise economic gain over environmental protection.

The governance of climate change in Nigeria will be examined showcasing the international position Nigeria has taken on governing the problem in comparison to the national stance taken. The chapter will end with the list of some possible factors that have served as hindrances and

have delimitated Nigeria from taking a hard line stance to climate change governance nationally.

Chapter seven is titled: Adopting an Environmental Sustainability Approach to Climate Change Governance in Nigeria: Summary, Recommendations and Conclusion. This is the concluding chapter and it seeks to showcase how Nigeria, through the adoption of an environmental sustainability governance regime, can effectively reduce its level of greenhouse gases and combat climate change nationally.

The chapter will begin by first summarizing the key findings of this thesis. This will be followed by the listing of the possible legal governance steps Nigeria can take to govern climate change and reduce the level of greenhouse gas emissions which is founded on an environmental sustainable stance.

CHAPTER 2 – THEORETICAL AND LEGAL PERSPECTIVES OF CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY

2.1 Introduction

The previous chapter set the scene of this legal research by stating the background, objectives and the research questions which serve as the guide through which the overarching aim of this thesis will be attained. In line with achieving practical legal governance steps on climate change for a developing country like Nigeria, founded in an environmental sustainability stance, this thesis subscribes to first understanding what climate change is and how the environmental sustainability principle can be utilized in governing this great problem.

To answer these questions and to discover why some scholars have sought to categorize climate change as a *"super wicked problem"*⁷¹, this chapter aims to showcase the scientific findings on climate change as a justification for the advocating of the hard line approach to governance. Scientific research and findings have constantly painted climate change as a multifaceted problem with the potential to disrupt the equilibrium of our planet⁷² through the gradual ebbing away of environmental structures that ensure our home, Earth, remains habitable for humans.⁷³

Humans have however historically interacted with the environment largely oblivious of this truth. There has been a largely anthropocentric, human first approach in our relationship with

⁷¹ See: Kelly Levin, Benjamin Cashore et al, 'Playing it Forward: Path Dependency, Progressive Incrementalism, and the "Super Wicked" Problem of Global Climate Change' (International Studies Association Annual Convention, Chicago, February 2007) 2; and Richard J. Lazarus, 'Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future' (2009) 9(5) Cornell Law Review 1159.

⁷² Benoit Mayer, *The International Law on Climate change* (CUP 2018) 1.

⁷³ Dennis Patrick O'Hara and Alan Abelsohn, 'Ethical Response to Climate Change' (2011) 16(1) Ethics and Environment 25.

the environment.⁷⁴ With an ever growing population, there has been a constant increase in the level of demand, placed by humans, on the environment as a source of resources for sustenance.⁷⁵ Human oblivion of the possible negative impact these demands placed on the environment and on our wider planet could have, has resulted in climate change.⁷⁶ This demand can largely be seen in three main ways: survival; habitation; and waste disposal.⁷⁷

In terms of survival, humans have relied on the environment as a resource centre through which food from vegetation and animals; clean air; water; land; and natural resources are derived. The environment can be seen as the survival base of human existence.⁷⁸ In terms of habitation, the environment serves as a spring board for the human population to grow and develop both the renewable and non-renewable natural resources found within the environment. The result of this is evident by the development of mega cities, increased habitation areas and technological advancements. The environment, in this sense, can be seen as the avenue through which humans, not only survive but, thrive.⁷⁹

Finally, the environment can be seen as an instrument for waste disposal. This 'waste disposal' function or class of interaction with human beings, by the environment, is seen where the environment takes in huge amounts of waste produced by humans and then recycles it into useful or less harmful substances.⁸⁰ These wastes come from the emissions from factories,

⁷⁴ ibid.

⁷⁵ Regina S. Axelrod, Stacy D. VanDeveer and Norman J. Vig, 'Introduction: Governing the International Environment' in Regina S. Axelrod, Stacy D. VanDeveer and David Leonard Downie (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011) 1.

⁷⁶ J. O. Ayoade, *Climate Change: A Synopsis of its Nature, Causes, Effects and Management* (2nd edn, AAP 2016) 1.

⁷⁷ Riley E. Dunlap and Andrew K. Jorgenson, 'Environmental Problems' in George Ritzer (eds), *The Wiley-Blackwell Encyclopaedia of Globalization* (1st edn, Blackwell Publishing 2012) 1

https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470670590.wbeog174> accessed 15 August 2018. 78 ibid.

⁷⁹ ibid 2.

⁸⁰ ibid 1.

emissions from means of transportation, waste from sewers and general waste produced by humans.

These different modes of human interaction with the environment have, however, been pushed and possibly overused largely due to the anthropocentric mind-set of humans. The anthropocentric mind-set views that the environment exists solely for human use and benefit, living little to no thought to a need to care and protect the environment.⁸¹ This arguably natural human nature of interacting with the environment through the lens of only being a resource centre, has often led to decisions and actions which have adversely affected the environment.

It is worth pointing out that some of these demands on the environment would normally be lauded as a positive move for human growth and development. However, with increased scientific findings, these demands are no longer viewed in a vacuum. For example: the felling of trees; building of industries; technological advancements; and development of transportation systems, all contribute to growth and development but have also negatively impacted the climate.⁸²

Improper waste disposals; industrial pollution; and aggressive sourcing of natural resources, have also been linked, in one way or another, to increasing the level of greenhouse gases in the atmosphere and negatively contributing to the rate of climate change.⁸³ Increased scientific findings linking these human demands and activities to climate change, have led to improved global awareness of the need to govern this global problem. This improved awareness has regrettably not equalled corresponding action by States. Nigeria is one of such countries.

⁸¹ Francesca Ferrando, 'The Party of the Anthropocene: post-humanism, environmentalism and the postanthropocentric paradigm shift' (2016) 4(2) Relations Beyond Anthropocentrism 161.

⁸² S Vijay Anand, 'Global Environmental Issues' (2013) 2(2) Open Access Scientific Reports 3 https://www.omicsonline.org/scientific-reports/2157-7617-SR-632.pdf> accessed 15 August 2018.

⁸³ Dunlap and Jorgenson (n 77) 1.

Nigeria has shown some level of awareness of the climate change problem by signing on to various global governance initiatives. The country has however been unwilling to tone down its anthropocentric attitude for a more environmental friendly one nationally, in view of effectively reducing its level of greenhouse gases. Scholars like Benoit Mayer⁸⁴ believe the lack of a universal acceptance of the problem and the slow or half-hearted response to climate change governance may be due to a lack of understanding of the science of climate change.

Mayer's view can be aligned with because it may be argued that if people fully understand the seriousness of the climate change problem, the anthropocentric attitudes that have resulted in climate change may be abandoned or at least reduced. In this vein, this chapter will begin by first discussing the different perspectives on the existence of climate change. This will be followed by a look at the science behind the changing climate showcasing how it is caused and its effects.

After establishing the seriousness of the climate change problem, the discussion will move on to defining the concept of environmental sustainability. This examination will involve understanding the concept as one of the pillars of sustainable development, what it stands for and the criticisms of the concept. This will be followed by an examination of the different major schools of thought relating to environmental protection and climate change governance showing the connection to an environmental sustainability stance. The chapter will be concluded with a look at the African theoretical perspective on climate change and environmental sustainability.

It is worth reiterating that this thesis in no way holds itself as a scientific thesis but rather, and in line with the interdisciplinary research method, looks to already established scientific writings on climate change in the development of this research. It is the opinion taken here that

⁸⁴ Mayer (n 72) 1.

a holistic research relating to the governance of climate change will be lacking without the adequate knowledge of the scientific understanding of the problem.

2.2 Perspectives on the Existence of Climate Change

Before delving into the science behind climate change, a general understanding of the different perspectives relating to this regulatory problem is needed. Such a discussion will give some level of context as to why States and individuals take different positions on climate change governance despite the growing breadth of scientific findings on the subject. Climate Change is a pulsating and complex phenomenon.⁸⁵ The numerous effects, already playing out globally in issues relating: to trade; human rights⁸⁶; displacement of people⁸⁷; and even in energy sourcing⁸⁸, has not resulted in a uniform view and stance on the viability of the climate change problem.

This non-uniformity and variance in perception, can be linked to how climate change is being governed. The more understanding and belief in the seriousness of the climate change problem, the increased willingness to take a hard line environmental sustainability approach to governing it. This logic can be applied the other way round as well. This thesis takes the position that there exists different levels of perception of the climate change problem which is affecting the level of governance of the problem.

The first group of people can be said to be those who believe in the existence of a changing climate and understand that it is a serious problem requiring immediate attention. This group

⁸⁵ Odeku and Meyer (n 23) 160.

⁸⁶ Michael Addaney, Elsabe Boshoff and Bamisaye Olutola, 'The Climate Change and Human Rights Nexus in Africa' (2017) 9(3) Amsterdam Law Forum 5.

⁸⁷ Maxine Burkett, 'Behind the Veil: climate migration, regime shift and a new theory of justice' (2018) 53 Harvard Civil Rights-Civil Liberties Law Review 445.

⁸⁸ Sandra Jane Fairbanks, 'Climate Change and Moral Responsibility' (2014) 4 Earth Jurisprudence and Environmental Justice Journal 60.

consists of those who are more prone to accepting scientific findings linking human action to climate change. They usually push for an environmental sustainability approach to climate change governance. Example of States that fall within this group are the European Union (EU), like the UK, who in the early days of the climate change negotiations, clamoured for a global governance instrument that was strict and portrayed an environmental sustainability approach to governance.⁸⁹ Kenya can also be categorized within this group due to the fact that the country has enacted a law that mandates all decisions made within it to be done in consideration of reducing the level of greenhouse gas emissions in the country.⁹⁰

Apart from the outright believers of the seriousness of the climate change problem, there exists another group who believe climate change is not as big as it has been globally portrayed. This group agrees that climate change exists but perceives that the global perception of the problem is being exaggerated. The main proponents of this group are usually scientists, like Patrick Michaels and Paul Knappenberger⁹¹, who believe the findings of other scientist are usually flawed or exaggerated. They criticised the climate change findings of the United States Global Change Research Program (USGCRP).⁹² They argue that the findings of the USGCRP could be termed as scientific "*anti-information*"⁹³ because, in their opinion, it does not give a complete and clear view of climate change but it rather makes climate change look like a dire and urgent problem.⁹⁴

⁸⁹ Farhana Yamin and Joanna Depledge, *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures* (CUP 2004) 42.

⁹⁰ Climate Change Act 2016, s 3(1) (KEN).

⁹¹ Patrick J. Michaels and Paul C. Knappenberger, 'Climate Data vs. Climate Models: Why do climate change assessments overlook the difference between the climate models they use and the empirical data?' (2013) 36 CATO Regulation 32.

⁹² ibid.

⁹³ ibid 33.

⁹⁴ They have gone on to write a book; Patrick J. Michaels and Paul C. Knappenberger, *Lukewarming: The New Climate Science That Changes Everything* (CATO Institute 2016); wherein they heavily criticise the Intergovernmental Panel on Climate Change (IPCC) for publishing what they consider to be exaggerated figures that makes it look as if global warming is happening at a faster rate than it actually is.

There also exists another group who can be said to have chosen to feign a blind eye to the problem of climate change due to their own personal interests.⁹⁵ This group is made up of organisations and countries profiting from the maintenance of the status quo. They believe it might be too onerous on them and their profitability to relinquish or change their unsustainable economic source. A country like Nigeria falls under this category with an economy driven by a greenhouse gas emitter, oil and gas. This category is also made up of policy makers and multinationals.

Multinationals that deal heavily in greenhouse emitters, like coal or oil, have usually chosen to downplay the seriousness of the climate change problem or act as if there is no problem at all. Some of these multinationals have settled on stating that the reasons for not acting is because the data on climate change is inconclusive and therefore they will only act when the science on the issue becomes clearer.⁹⁶

The personal cost of combating climate change and the envisioned level of change it requires, may be said to contribute to the deprioritizing of climate change governance by parties within this group. There is the belief that combating climate change may cause too much strain on societal development and infrastructural development.⁹⁷ This has been the view of the present President of the USA, Donald Trump. He has publicly denied the existence of a changing climate and gone as far as to withdraw the US from the Paris climate agreement stating the agreement places the USA economy at a disadvantage. He states *"the Paris deal hamstrings the United States while empowering some of the world's top polluting countries…"*⁹⁸

⁹⁵ Meredith T. Niles and Nathaniel D. Mueller, 'Farmer Perceptions of Climate Change: associations with observed temperature and precipitation trends, irrigation and climate beliefs' (2016) 39 Global Environmental Change Journal 133.

 ⁹⁶ Shannon M. Roesler, 'Evaluating Corporate Speech about Science' (2018) 106 Georgetown Law Journal 452.
 ⁹⁷ Fairbanks (n 88) 62.

⁹⁸ Oliver Milman, David Smith and Damian Carrington, 'Donald Trump confirms US will quit Paris Climate Agreement' (The Guardian, 1 June, 2017) https://www.theguardian.com/environment/2017/jun/01/donald-trump-confirms-us-will-quit-paris-climate-deal accessed 23 March 2018.

The final group are those with little to no understanding of the climate change problem. This group could arguably be said to be the most populated of all. The lack of awareness could be due to poverty, lack of education or even war.⁹⁹ Some people are either too poor, ignorant or even preoccupied with other things to care about climate change governance or environmental sustainability. This naivety or lack of understanding can be found in most rural centres wherein the people are too set in their ways or do not have access to information.

This is more evident in developing countries where heavy reliance is placed on unsustainable energy sources. There is either no knowledge of more sustainable ways to source for energy or it is too expensive for them to access.¹⁰⁰ They are also present in developed countries amongst those who choose to remain ignorant or are too poor to care.

The above range of perceptions towards the seriousness of the climate change shows a lack of universal acceptance and understanding of the science on climate change. This research, being based in law, will not concentrate on the scientific debate of the viability of the methods utilised to calculate the extent by which the climate is changing but rather showcase the different proofs ascertaining the existence of the changing global climate.

Following on from this, the next section aims to establish the seriousness of climate change as a problem requiring governance. This will involve breaking down the different components of the climate change problem so as to showcase the impact of human action. Even though the science may come across as being somewhat descriptive, this understanding is needed to justify the position taken in this thesis which advocates for States to adopt an environmental sustainability approach to governing climate change.

⁹⁹ Zareen Shahid and Awais Piracha, 'Awareness of Climate Change Impacts and Adaptation at Local Level in Punjab, Pakistan' in Basant Maheshwari, Vijay P. Singh and Bhadraine Thoradeniya (eds), *Balanced Urban Development: options and strategies for liveable cities* (Springer 2016) 410.
¹⁰⁰ Friday (n 9) 33.

2.3 Climate Change: The Regulatory Problem

The different perspectives on the existence of the problem of climate change could largely be attributed to a lack of universal understanding of the problem. Any attempt to shed light on the issue of climate change and possibly proffer legal suggestions to tackle this regulatory problem would ideally start with an understanding of the science behind the issue. This means understanding what the climate system is all about, how the climate began to change and human being's influence on the climate system.

An understanding of how the climate is changing and what this means for the human population and the Earth as a whole, would enable a more efficient way to tackle the regulatory side of the issue of climate change. Taking into cognizance the fact that this is a legal research, this section aims to showcase, to a reasonable extent, the science behind the threat of climate change.

2.3.1 The Regulatory Problem: The Climate System

In understanding the way the climate has been changing, there is a need to first explain what the Earth's climate system is. The Earth's climate system consists of a combination of complex interactions between various elements.¹⁰¹ These elements are the: atmosphere; biosphere; hydrosphere; land surface; and cryosphere. All these elements are affected by various external factors, top of which are the sun and human activities.¹⁰² Before delving into these elements, it is worth pointing out that the climate system of the earth is not the same as the climatic condition or the weather condition.

 ¹⁰¹ Albert C. Lin, 'Evangelizing Climate Change' (2009) 17 N. Y. U. Environmental Law Journal 1140.
 ¹⁰² A. P. M. Baede, E. Ahlonsou et al, 'The Climate System: an Overview' in J. T. Houghton, Y. Ding et al (eds), 'Climate Change 2001: The Scientific Basis' (2001) Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)
 https://www.ipcc.ch/ipccreports/tar/wg1/pdf/WGI_TAR_full_report.pdf> accessed 9 April 2018.

The climatic condition shows the long term atmospheric condition of a place through: the measurement of the amount of rainfall and snowfall; the direction and strength of the wind; the amount of snow and ice cover; and the average temperature of the place.¹⁰³ The weather condition of a place, on the other hand, only shows the minute by minute atmospheric condition at a particular given time showing the: temperature; humidity; wind pressure; cloud formation; and other meteorological sightings.¹⁰⁴ The climatic condition of a place can therefore be seen as the average weather condition of a place or region over a long period of time.

The climate system goes beyond the climatic or weather conditions. It involves the interaction of different elements. The atmosphere is widely stated as the most complex element of the earth's climate system due to its rapidly changing nature.¹⁰⁵ One of the reasons for this complexity is due to the fact that there exists further layers within the atmosphere. These layers consist of: Troposphere; Stratosphere; Mesosphere; Thermosphere; and Exosphere.¹⁰⁶ The Troposphere is the closest layer to the earth's surface. It is the layer where life exists because it contains most of the air.¹⁰⁷

The second layer above the Troposphere is the Stratosphere. The Stratosphere contains less air, increased altitude and it is the level where most planes travel at. It is also the level where the ozone layer is and where the rays from the sun are first absorbed.¹⁰⁸ The Mesosphere is the third layer of the atmosphere and the coldest layer. It is the layer wherein any meteoroid from space burns out.¹⁰⁹ The Thermosphere is the fourth layer of the atmosphere and extends largely over

¹⁰³ William F. Ruddiman, *Earth's Climate: Past and Future* (2nd edn, W. H. Freeman 2008) 8.

¹⁰⁴ United States Global Change Research Program (USGCRP), 'Climate Literacy: The Essential Principles of Climate Science' (2nd Version 2009)

https://downloads.globalchange.gov/Literacy/climate_literacy_highres_english.pdf> accessed 8 April 2018. ¹⁰⁵ Baede, Ahlonsou et al (n 102) 86.

¹⁰⁶ Holly Zell, 'Earth's Atmospheric Layers' (NASA, 7 August 2017)

https://www.nasa.gov/mission_pages/sunearth/science/atmosphere-layers2.html accessed 15 May 2020. ¹⁰⁷ ibid.

¹⁰⁸ Kshudiram Saha, The Earth's Atmosphere: It's Physics and Dynamics (Springer 2008) 9.

¹⁰⁹ ibid.

the planet.¹¹⁰ The Exosphere is the fifth and uppermost layer of the atmosphere. It does not have a clear upper end because it thins out into outer space¹¹¹.

The atmosphere is composed mainly of gases like oxygen, nitrogen and argon. There also exists some trace gases in the Earth's atmosphere such as carbon dioxide, nitrous oxide, methane, water vapour and ozone.¹¹² Apart from the atmosphere, another element of the climate system is the biosphere. Biosphere is the segment of the climate system which comprises of both terrestrial and marine life, land and water organisms.¹¹³

Human beings and their activities should ideally fall under this segment of the climate system. However, a large number of scholars¹¹⁴ are of the view that the impact humans have on the climate system is great enough to necessitate the creation of a new classification called Anthroposphere. Anthroposphere can simply be defined as the segment of the climate system which is comprised of humans and human activities.¹¹⁵ These human activities relate to the developmental activities which have, and continually, affected other components of the climate system.

There exists other elements that make up the climate system of the earth. The Hydrosphere is the segment of the climate system comprising of all the body of water and liquid surfaces found on earth. This ranges from oceans, rivers, lakes, seas and subterranean water.¹¹⁶ The Land Surface segment of the climate system comprises of all the land, rocks (also called lithosphere)

¹¹⁰ ibid.

¹¹¹ ibid.

¹¹² ibid.

¹¹³ S. Franck, C. Bounama and W. von Bloh, 'Causes and Timing of Future Biosphere Extinctions' (2006) 3(1) **Biogeosciences 85.**

¹¹⁴ See for example: Andrew Gettelman and Richard B. Rood, *Demystifying Climate Models: A Users Guide to* Earth System Models (Springer 2016) 13; B. B. Rodoman, 'The Organized Anthroposphere' (2014) 9 Soviet Geography Journal 1; Sarah E. Cornell, Catherine J. Downy et al, 'Earth System Science and Society: A focus on the Anthroposphere' in Sarah E. Cornell, Colin Prentice et al (eds), Understanding the Earth System: Global Change Science for Application (CUP 2012) 10.

¹¹⁵ A. Kuhn and T. Heckelei, 'Anthroposphere' in Peter Speth, Michael Christoph and Bernd Diekkrüger (eds), Impacts of Global Change on the Hydrological Cycle in West and Northwest Africa (Springer 2010) 284.

¹¹⁶ Baede, Ahlonsou et al (n 102) 88.

and soil (also called pedosphere) above the earth's massive body of waters. The land surface takes roughly about thirty percent (30%) of the earth's surface with the remaining seventy percent (70%) being comprised of bodies of water.¹¹⁷ The Cryosphere is the segment of the climate system which comprises of glaciers, ice sheets, ice shelves, sea ice and lake ice all mostly found in the Antarctica and Greenland.¹¹⁸

All these elements of the climate system have historically interacted with the sun to ensure the earth remains stable enough for habitation by not becoming too cold or too hot for life to exist within it.¹¹⁹ A simpler way of classifying the interactions can be said to be the interplay of the sun with air (Atmosphere), water (Hydrosphere), ice (Cryosphere), living things (Biosphere), man¹²⁰ (Anthroposphere) and land. The interaction starts with the sun. The sun radiates energy to the earth in form of electromagnetic waves which are also referred to as Solar Radiations.¹²¹

Some of these solar radiations bounce on top of the earth's surface back to space while the remaining are absorbed into the earth's atmosphere which in turn warms up the earth.¹²² The other components in the climate system radiate infrared radiations back into space in line with balancing the amount of solar radiations from the sun.¹²³ However, some of these radiations

¹¹⁸ David G. Vaughan, Josefino C. Comiso et al, 'Observations: Cryosphere' in T. F. Stocker, D. Qin et al (eds), 'Climate Change 2013: The Physical Science Basis' (2013) Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)

¹¹⁷ ibid 89.

https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter04_FINAL.pdf> accessed 21 April 2018.

¹¹⁹ Andrew Gettelman and Richard B. Rood, *Demystifying Climate Models: A Users Guide to Earth System Models* (Springer 2016) 13.

¹²⁰ Human Beings fall under the classification of living things (Biosphere) but only separated here for the purpose of classification.

¹²¹ Pooja, Pooja and Ranveer (n 7) 335.

¹²² ibid.

 ¹²³ Herve Le Treut, Richard Somerville et al, 'Historical Overview of Climate Change Science' in S. Solomon,
 D. Qin et al (eds), 'Climate Change 2007: The Physical Science Basis' (2007) Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)
 https://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter1.pdf> accessed 21 April 2018.

are retained within the climate system to keep the earth surface warm. These radiations, which are actually gases, produce what is widely referred to as the greenhouse effect.¹²⁴

The term 'greenhouse effect' is culled from the greenhouses used in gardening. A greenhouse is such that the transparent, usually glass walls, allows solar radiation into the greenhouse which is then absorbed by the contents of the greenhouse while at the same time not allowing heat out of the greenhouse thereby keeping it warm.¹²⁵ Similarly, but through a far more complex process, the greenhouse effect of the earth is such that the different gases in the atmosphere derived from the climate system, also widely called greenhouse gases, ensure solar radiation enters the earth and in turn produce infrared radiations to warm up the earth.¹²⁶

This greenhouse effect, on the earth's climate, is highly regulated by the amount of greenhouse gases in the atmosphere. These gases¹²⁷ are; water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tropospheric ozone (O₃) and chlorofluorocarbons.¹²⁸ Earth is naturally a cold planet but these greenhouse gases warm up the planet thereby making it habitable.¹²⁹ It can therefore be logically concluded that the higher the amount of greenhouse gases in the atmosphere, the warmer the earth will be. This would ultimately have a domino effect on all the components in the climate system.

2.3.2 The Regulatory Problem: The Changing Climate

The domino effect of the increasing amount of greenhouse gases in the atmosphere, has resulted in the increased warming of the planet. The warming up of the earth has however not slowed down leading to the highly documented and debated process popularly coined climate change.

¹²⁴ ibid 115.

¹²⁵ Pooja, Pooja and Ranveer (n 7) 335.

¹²⁶ Gettleman and Rood (n 119) 15.

¹²⁷ Treut, Somerville (n 123) 115. There exists other gases within the atmosphere which have little to no greenhouse effect. The most prominent and abundant of such gases are nitrogen and oxygen.

¹²⁸ Pooja, Pooja and Ranveer (n 7) 334.

¹²⁹ Treut, Somerville (n 123) 116.

Climate Change relates to the "*significant and persistent change in the mean state of the climate or its variability*"¹³⁰. It refers to a consistent and lengthy metamorphosis of the statistical weather pattern of the earth.¹³¹ Climate anomaly is different from climate change. A climate anomaly is a temporary change or alteration in the normal climatic state of a particular place over a short period of time while climate change refers to a change or the act of changing the climatic state over a longer period of time invariably making this new climatic state the new normal.¹³²

Climate change is seen as a constant change in the atmospheric temperature of the earth over a continuous period of time due to either natural or artificial factors. The natural factors which serve as drivers of climate change are: solar radiations and volcanic eruptions. The main artificial driver of climate change are anthropocentric factors.¹³³ Starting with the natural factors, the solar radiation from the sun has historically played a huge role in the way the earth's climate has changed. It should be noted that the solar radiation from the sun is never fully consistent which, when coupled with the greenhouse gases, result in gradual changes to the earth's climate.¹³⁴

A variation in the solar output, by about one percent (1%), results in the alteration of the earth's average temperature.¹³⁵ This alteration, coupled with the naturally occurring greenhouse gases,

¹³¹ H. N. L. Nwankwoala, 'Causes of Climate and Environmental Changes: The need for Environmental-Friendly Education Policy in Nigeria' (2015) 6(30) Journal of Education and Practice 225.

https://www.ipcc.ch/ipccreports/tar/wg1/pdf/WGI_TAR_full_report.pdf> accessed 9 April 2018.

¹³⁴ Ulrich Cubasch, Donald Wuebbles et al, 'Introduction' in T. F. Stocker, D. Qin et al (eds), 'Climate Change 2013: The Physical Science Basis' (2013) Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter04_FINAL.pdf> accessed 21 April 2018.

¹³⁰ Margaret Rosso Grossman, 'Climate Change and the Law' (2010) 58 American Journal of Comparative Law 224.

¹³² Ayoade (n 76) 1.

¹³³ C. K. Folland, T. R. Karl et al, 'Observed Climate Variability and Change' in J. T. Houghton, Y. Ding et al (eds), 'Climate Change 2001: The Scientific Basis' (2001) Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)

¹³⁵ Nwankwoala (n 131) 227.

have resulted in the warming up of the historically cold earth making it habitable.¹³⁶ Apart from the sun, another natural propeller or agent impacting the climatic conditions of the earth are volcanic eruptions.¹³⁷ Volcanic eruptions produce gases known as aerosols into the atmosphere which impact the climate. Major volcanic eruptions, especially those that occurred during the pre-industrial times, had a greater impact on the climate due to the higher level of aerosols being emitted.¹³⁸

Climatologists have noted that a year after the volcanic eruption in Indonesia of Mount Tambora in 1815, the weather became very cold in the region.¹³⁹ Another more recent example was the 1991 volcanic eruption in the Philippines of Mount Pinatubo.¹⁴⁰ The eruption resulted in aerosol particles being spread all through the atmosphere, most especially the lower part of the stratosphere (the second level of the atmosphere). The resultant effect of this was the global reduction of the heat level in the troposphere (the first level of the atmosphere).¹⁴¹

Both this natural propellers of climate change have not drastically changed the earth's climate but have rather slowly and steadily affected the climatic composition.¹⁴² In antithesis to this slow and stable form of climatic change, the artificial factor, anthropocentric activities, is propelling a more dire and aggressive form of climatic change. This obliviously orchestrated change by the anthropocentric class has led many scholars and institutions to define climate change solely as a human propelled problem.

¹³⁶ IPCC Working Group I, 'Policymakers Summary' in J. T. Houghton, G. J. Jenkins and J. J. Ephraums (eds), *Climate Change: The IPCC Scientific Assessment* (CUP 1990) xiv.

¹³⁷ Thomas F. Stocker, Dahe Qin et al, 'Technical Summary' in T. F. Stocker, D. Qin et al (eds), 'Climate Change 2013: The Physical Science Basis' (2013) Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) <https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter04_FINAL.pdf> accessed 21 April 2018.

¹³⁸ ibid 56.

¹³⁹ Nwankwoala (n 131) 227.

¹⁴⁰ Wenmin Man, Tianjun Zhou and Johann H. Jungclaus, 'Effects of Large Volcanic Eruptions on Global summer Climate and East Asian Monsoon Changes during the Last Millennium: Analysis of MPI-ESM' (2014) 27(19) Journal of Climate 7394.

¹⁴¹ ibid. ¹⁴² L in (n 101)

¹⁴² Lin (n 101) 1140.

This sentiment is seen in the definition given in the UNFCCC wherein climate change was defined as a "*change of climate which is attributed directly or indirectly to human activity that alters the composition of global atmosphere*..."¹⁴³ The IPCC, even though noting the fact that there exists natural drivers of climate change, agrees with the definition in the UNFCCC by stating that the changes to the climate have been accentuated by "*external forcings*"¹⁴⁴. These 'forcings' are anthropocentric actions which have inadvertently changed the composition of greenhouse gases in the atmosphere.¹⁴⁵

The IPCC also states that human's use of the environment, has negatively accentuated the process of climate change.¹⁴⁶ Human action has resulted in unintended and mostly unimagined effects to the climatic system and the earth as a whole. These anthropocentric actions were historically heightened during the industrial revolution. ¹⁴⁷ At that time, there was great population increase and a strain on limited resources. Humans were 'forced' to become innovative. This led to the building of industries; mechanized farming; mechanized means of transportation; improved healthcare; and increased constructions to house the growing population.¹⁴⁸

All these 'innovations' where further enhanced with the discovery of natural resources like coal and oil. The backlash to all these human activities and innovations is the negative impacting of the climate system, the environment and the planet as a whole.¹⁴⁹ Industrialization and becoming more mechanized in everything we do, has led to a great increase in the emission of greenhouse gases. The felling of trees to make way for urbanization, the act of drilling for

¹⁴³ UNFCCC 1992 Art. 1.

¹⁴⁴ Baede, Ahlonsou et al (n 102) 87.

¹⁴⁵ ibid 788.

¹⁴⁶ ibid.

¹⁴⁷ ibid 92.

¹⁴⁸ Tella (n 3) 85.

¹⁴⁹ ibid.

natural resources, gas flaring and oil spillage; all from human activities, have increased the amount of greenhouse gases in the atmosphere.¹⁵⁰

2.3.3 The Regulatory Problem: The Effects of Climate Change

Like a chain reaction, the increased amount of greenhouse gases in the atmosphere has led to increased intensity of the greenhouse effect. This is because the increase in greenhouse gases, has made the earth's surface more receptive to solar radiations.¹⁵¹ The anthropocentric effect on the climatic system, through the increased emissions of greenhouse gases and other anthropocentric activities,¹⁵² has brought about an alarming increase in the warming of the planet.¹⁵³ Carbon dioxide (CO₂), Methane (CH₄) and Nitrous oxide (N₂O) are the most anthropocentric emitted greenhouse gases.¹⁵⁴

The resultant effect of this increased global warming is a change in weather patterns.¹⁵⁵ The weather patterns, which were often easily predictable and easy to understand, are becoming more and more unpredictable and producing extreme temperatures and weather events. The threat posed, and already felt in varying degrees, by the changing climate is at a global scale with humans and other aspects of the climate system, as a whole, being affected.¹⁵⁶ The extreme weather fluctuations have resulted in artic ice melts, increased floods, rising sea levels, heat waves, wild fires, droughts and typhoons.¹⁵⁷

¹⁵⁰ Nwankwoala (n 131) 224.

¹⁵¹ Grossman (n 130) 225.

¹⁵² Deforestation, apart from the increased emission of greenhouse gases, also negatively impacts the greenhouse effect. This is because it results in a damaging, no matter how slight, of part of the Biosphere which would normally help reduce the amount of greenhouse gases entering into the atmosphere.

¹⁵³ David I. Efevwerhan, 'The Kyoto Protocol and Oil – Dependent Economies of Developing Nations: Nigeria in Focus' (2006) 4 OGEL 10.

¹⁵⁴ Pooja, Pooja and Ranveer (n 7) 335.

¹⁵⁵ Atieno Mboya, 'Human Rights and the Global Climate Change Regime' (2018) 58(1) Natural Resources Journal 51.

 ¹⁵⁶ Angela Williams, 'Solidarity, Justice and Climate Change Law' (2009) 10(2) Melbourne Journal of Law 493.
 ¹⁵⁷ Mboya (n 155) 52.

The effects of climate change, as a result of increased greenhouse gas emissions due to anthropocentric activities, has led, and is still leading, to uneven temperatures in different regions of the world. There has also been a gradual reduction of the mean temperature of the earth.¹⁵⁸ The reduction of the global mean temperature, coupled with the extreme weather changes, has resulted in different regions of the world experiencing varying degrees of physical, economic and social side effects of climate change.¹⁵⁹

For example, a physical effect of climate change as a whole is the decrease in snow and ice cover coupled with melting of glaciers in Antarctica and in Greenland.¹⁶⁰ Scientist have linked this to the endangering of wildlife.¹⁶¹ They have further stated that the melting of snow and ice sheets have had a domino effect on other parts of the world, not even close to the North Pole, by resulting in an increase in sea level. It is important to note that the sea level rise is not only attributed to the melting of glaciers and ice sheets, but also due to warmer temperatures. It is seen that an increase in temperature causes a thermal increase in the level of water in the sea.¹⁶²

The general increase in global water levels has also led to an increase in extreme water events such as high tides and flooding. The impact on coastal lying regions, cannot be over stated. A country like Malaysia is a good example of a place affected by the rise in sea level. Malaysia has been affected by increased erosion as a result of increasing sea levels. There has been increased flooding with about nine percent (9%) of the country classified to be extremely

¹⁵⁸ Pooja, Pooja and Ranveer (n 7) 335.

¹⁵⁹ Josh Merrill, 'Climate Change and its effect on Indigenous Peoples of the Southwest' (2013) 38(1) American Indian Law Review 232.

¹⁶⁰ Grossman (n 130) 225.

¹⁶¹ Patrick Nopens, 'The Impact of Global Warming on the Geopolitics of the Artic: A Historical Opportunity for Russia?' (2010) 8 EGMONT Royal Institute for International Relations 2.

¹⁶² Sujahangir Kabir Sarkar, Rawshan Ara Begum et al, 'Impacts of and Adaptations to Sea Level Rise in Malaysia' (2014) 11(2) Asian Journal of Water, Environment and Pollution 30.

vulnerable to sea level rises.¹⁶³ It is safe to say Malaysia and the world in general, stands to be affected, both from the social and economic front, due to the rise in sea level.

In terms of the socio-economic impact, flooding has resulted in displacement of people and loss of homes. It has also left those in low lying coastal regions with eroded land. The increased sea level has contributed in inhibiting agricultural production negatively impacting the food source of those living in that region. This also places a strain on the government who will have to relocate the displaced people and try to cope with the loss of revenue.¹⁶⁴ As earlier stated, the problem of climate change, even though it as a global impact, is felt in varying ways and degrees across various regions of the earth.

In line with this, some parts of the world are experiencing water related disasters while some other regions have been affected by substantial lack of water due to the absence of rain or the drying up of streams and other water sources due to climate change.¹⁶⁵ The latter is exemplified in some parts of the Southwest region of the USA where there is heavy reliance on the Colorado River Basin.¹⁶⁶ The Colorado River Basin serves as a source of water for about seven states in the Southwestern region of the USA, stretching from Southern California, Arizona and into the state of Colorado.¹⁶⁷

Interestingly, the source of water into the Colorado River Basin is majorly flowing from the snowpack up the mountain.¹⁶⁸ A snowpack is a natural coagulation of layers of snow found in very high altitudes which usually melts during warmer temperatures serving as a source of natural water.¹⁶⁹ Dropping temperatures, due to the changing climate, has resulted in a

¹⁶³ ibid 31.

¹⁶⁴ ibid 32.

¹⁶⁵ Addaney, Boshoff and Olutola (n 86) 6.

¹⁶⁶ Merrill (n 159) 232.

¹⁶⁷ ibid.

¹⁶⁸ Ibid.

¹⁶⁹ Sean P. Burns, Noah P. Molotch et al, 'Snow Temperature Changes within a Seasonal Snowpack and the Relationship to Turbulent Fluxes of Sensible and Latent Heat' (2014) 15 Journal of Hydrometeorology 117.

reduction of the snowpack thereby leading to reduced flow of water into the Colorado River Basin.¹⁷⁰ The social and economic impact this has had and is still having on the communities relying on the water gotten from the Colorado River Basin, can in no way be overstated. The quantity of water to these communities has reduced considerably forcing them to source for water from elsewhere contributing to economic inconvenience for the communities found there.¹⁷¹

The shortage of water has also affected the quality of water resulting in the rise of water borne diseases. The ripple social impact of the water shortage, in these communities, is seen in the disruption of their way of life. Reliance on fishing and agriculture by some individuals in the community, especially in the Arizona area, as a means of economic enrichment and feeding, has been negatively affected due to lack of water, leading to increased economic hardship.¹⁷²

Another physical effect of climate change, which impacts negatively on the social and economic sectors, is extreme weather changes. There has been increasingly intense weather disasters and disruption in how different regions experience the weather. There have been warmer temperatures in places which have historically been cooler, leading to more intense heatwaves.¹⁷³ Heatwaves are generally seen as periods of extreme and abnormally hot weather. In 2010, there was a strong and deadly heatwave in Russia.¹⁷⁴

In 2018, both Pakistan and India experienced heatwaves that led to the death of a number of people within the country. There were recorded over sixty (60) deaths in the southern city of

¹⁷⁰ ibid.

¹⁷¹ ibid 119.

¹⁷² Merrill (n 159) 233.

¹⁷³ Addaney, Boshoff and Olutola (n 86) 6.

¹⁷⁴ Daniel G. Huber and Jay Gulledge, 'Extreme Weather and Climate Change: Understanding the Link and Managing the Risk' (2011) Science and Impacts Program: Centre for Climate and Energy Solutions http://www.c2es.org/publications/extreme-weather-and-climate-change accessed 20 May 2018.

Karachi, Pakistan.¹⁷⁵ The death toll caused by climate change, by virtue of extreme weather changes, is not only limited to heatwaves. There have been intense hurricanes which have destroyed homes and led to the death of countless numbers of people, as was seen in the island of Haiti in 2008.¹⁷⁶ There have also been destructive floods in Pakistan, in 2010, and the well televised Hurricane Katrina in 2005 which brought great destruction to the city of New Orleans in the USA.¹⁷⁷ This serves as a snapshot of the destructive capability of the climate change problem and its effect on people globally.

This destructive effects affect different regions in varying intensity and the continent of Africa is no exception. The geographical location of the continent leaves the people within it highly vulnerable to the physical, social and economic effects of climate change. This is further buttressed by the fact that the continent is largely located in the tropics, an area historically considered warm, even prior to experiencing the full effects of climate change.¹⁷⁸ The continent has been affected by extreme weather events, droughts, outbreak of diseases and rise in sea levels.¹⁷⁹ There have been intense rainfall in some parts of Africa which has led to floods.

There exists an increasing fear of erosion due to flooding and rising sea level.¹⁸⁰ An example of a country which stands to be at risk of this is Nigeria especially the city of Lagos which has in recent years suffered from heavy rainfall and floods.¹⁸¹ The opposite of excess rainfall is expected and already being experienced in some other parts of Africa. Countries like Zimbabwe, which have limited access to water sources and are also semi-arid tropical

¹⁷⁵ Asad Hashim, 'At least 60 dead as Pakistan's Karachi sizzles in heatwave' (Aljazeera, 23 May, 2018) http://www.aljazeera.com/news/2018/05/kills-65-pakistan-karachi-180523080507561.html> accessed 24 May 2018.

¹⁷⁶ Huber and Gulledge (n 174) 1.

¹⁷⁷ ibid.

¹⁷⁸ Addaney, Boshoff and Olutola (n 86) 6.

¹⁷⁹ Z. Ntozintle Jobodwana, 'Africa, Global Warming and Climate Change Environmental Court' (2011) 8 US-China Law Review 225.

¹⁸⁰ ibid 224.

¹⁸¹ ibid.

countries, are beginning to suffer from droughts and water stress.¹⁸² Even without climate change, the climate structure of such a country involved very hot summers and cool to relatively warm winters.

Climate change has brought about lower precipitation and increased evaporation in the African continent leading to increased water scarcity.¹⁸³ Apart from water scarcity, climate change is also negatively impacting the social and economic structures in Africa. Top of the list is the impact climate change is having on agriculture and food production. The inconsistency of the weather patterns is leading to disadvantageous affects for majority of Africans who are rural dwellers. For example, some areas are suffering from increased rainfall which is resulting in erosion and flooding.¹⁸⁴ The ripple effect is increased loss of livelihood for the agrarian based communities and also food shortages.

The other side of the spectrum consist of those affected by drought who would also be affected by food shortages due to lack of water to properly irrigate the land for farming. The social effect of this would also extend to loss of life and forceful migration.¹⁸⁵ Apart from the danger of a potential increase in the transmission of malaria, there exists the fear that other diseases attributed to unhealthy water and viruses adaptable to increased heat, may thrive better because of the changing and warming climatic conditions.¹⁸⁶

The global effects of climate change cannot be overstated. There are signs to show that the effects of climate change are already being felt in the world around us.¹⁸⁷ The social and economic impacts are still being felt all over the world. In that vein, some scholars have pointed

¹⁸² Addaney, Boshoff and Olutola (n 86) 12.

¹⁸³ ibid 13.

¹⁸⁴ Jobodwana (n 179) 225.

¹⁸⁵ Addaney, Boshoff and Olutola (n 86) 14.

¹⁸⁶ Jobodwana (n 179) 226.

¹⁸⁷ James Dobbins, Richard H. Solomon et al, *Choices for America in a Turbulent World: Strategic Rethink* (RAND Corporation 2015) 69.

to climate change having a distinct social impact on human rights, displacement of people and increasing the threats of war. The human rights angle is seen from the fact that the effects of climate change potentially stands to undermine the basic rights of humans globally.

The Universal Declaration of Human Rights, a document which attempts to codify the basic fundamental rights of humans globally, was proclaimed on the 10th of December 1948 by the United Nations General Assembly. The Declaration states that, *"everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing housing and medical services and necessary social services…"*¹⁸⁸ This stated universal right is coming under serious threat due to the fact that climate change has resulted in: people losing their homes; sources of income; supply of water; and food, which are all ultimately needed to enjoy an adequate standard of living.¹⁸⁹

Climate change has also led to the displacement of people from their homes. The extreme weather changes, storms and droughts have led to the destruction of homes, lack of hygienic water, shortage of food and a general destruction of the way of life of some people. This ultimately has led to the displacement of people from their homes.¹⁹⁰ Migration involves people moving out of their home and relocating to another place based primarily on an unforced voluntary decision. Displacement, on the other hand, connotes a forced and involuntary move, due to unfavourable climate conditions for example, usually out of necessity.¹⁹¹

Climate change is also seen to have contributed to threats of war and tension between communities. The fact that people are being displaced including threats of shortage of food and water, all as a result of climate change, has increased and contributed to individuals and

¹⁸⁸ United Nations Universal Declaration of Human Rights 1948, Art. 25.

¹⁸⁹ Addaney, Boshoff and Olutola (n 86) 9.

¹⁹⁰ Burkett (n 87) 447.

¹⁹¹ ibid 463.

communities becoming more prone to waring with each other.¹⁹² This is seen playing out in North America with the Southwestern Native tribes¹⁹³ of the USA.

These tribes view water as sacred, so a lack of it has resulted in intertribal tension.¹⁹⁴ It can even be argued that the effects of climate change could lead to there being a scarcity of resources (food, water and potentially land) which could result in people vying for limited resources, displacement of people and eventually conflict.¹⁹⁵ It is very evident that climate change continues to have an adverse effect on all human life irrespective of whether an individual is situated in a developed or in a developing country.¹⁹⁶

The various effects of climate change already being experienced globally, inclusive of the dire picture painted of the problem by scientific findings, has prompted the international community to adopt a governance approach to tackle this global problem. These attempts to govern the threat of climate change, by the international community, are gradually mirroring an environmental sustainability stance in response to the urgency needed to tackle the problem.¹⁹⁷ This stance prioritizes environmental protection. The next section aims to shed more light on the concept of environmental sustainability.

¹⁹² Kirsten Davis and Thomas Riddell, 'The Warming War: How Climate Change is Creating Threats to International Peace and Security' (2017) 30(1) The Georgetown Environmental Law Review 47.

¹⁹³ Merrill (n 159) 231 - The Southwestern tribes are a group of Native American tribes found mainly in the cities of Arizona, Colorado, Southern California and New Mexico. The Southwest is home to over 70 Native American tribes who are all recognised by the federal government of the USA. ¹⁹⁴ ibid 233 -234.

¹⁹⁵ Davis and Riddell (n 192) 54.

¹⁹⁶ Mayer (n 72) 1.

¹⁹⁷ Philippe Sands, Jacqueline Peel et al, *Principles of International Environmental Law* (4th edn, CUP 2018) 198 – 199.
2.4 Sustainable Development: Environmental Sustainability

In understanding the principle of environmental sustainability, credence must first be given to the umbrella principle of sustainable development. This is due to the fact that environmental sustainability is widely viewed as one of the pillars of sustainable development. This section aims to answer the question relating to understanding what environmental sustainability is all about by: first discussing sustainable development; understanding the different pillars of sustainable development; examining how environmental sustainable development is attained; and the general criticism of the principle.

2.4.1 The Principle of Sustainable Development

Sustainable development is a concept which has been highly commented upon by scholars from different backgrounds and fields. The principle can almost be likened to an indication of hope because it is fast associated with everything an ideal society, business or institution should be and strive to attain.¹⁹⁸ This is why it has been categorized by scholars like Lafferty¹⁹⁹ and Meadowcroft²⁰⁰ as having an almost or equal status to globally recognized concepts like; democracy, liberty and justice.

The likeness to such global concepts, is fast making sustainable development increasingly being seen as a desired principle which is complex and almost impossible to achieve.²⁰¹ This juxtaposed status of sustainable development has made it difficult for scholars and policy makers to agree on a clear definition on what it actually means or stands for.²⁰² For clarity on

¹⁹⁸ Ross (n 14) 33.

¹⁹⁹ William M. Lafferty, 'Introduction: form and function in governance for sustainable development' in William M. Lafferty (eds), *Governance for Sustainable Development: The Challenged of Adapting Form to Function* (Edward Elgar 2004) 26.

²⁰⁰ James Meadowcroft, 'Who is in Charge here? Governance for Sustainable Development in a Complex World' (2007) 9(3-4) Journal of Environmental Policy and Planning 299.

²⁰¹ Lafferty (n 199) 26.

²⁰² Erling Holden, Kristin Linnerud and David Banister, 'Sustainable Development: Our Common Future revisited' (2014) 26 Global Environmental Change 130.

what sustainable development means, it is safe to start by tracing how the principle first gained global prominence.

This can be traced to a 1987 UN report, under the initiative of the World Commission on Environment and Development, which is widely known as the Brundtland Report.²⁰³ The over 300 page report, was published with the aim of setting out *"a global agenda for change"*²⁰⁴ which would serve as a blueprint towards the attainment of a more sustainable planet. It was in this report that the term 'sustainable development' gained prominence.

Sustainable development was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".²⁰⁵ This means that in order to achieve or strive towards attaining sustainable development, actions, laws and decisions must be geared in such a way that present human needs are met without jeopardizing the ability of future generations to meet their own needs.²⁰⁶

The Brundtland Report further stated that the global goal, which sustainable development strives to achieve, is progressive development in both developed and developing countries by ensuring improved living standards while safeguarding long term human sustainability.²⁰⁷ This sentiment has been adopted, either directly or indirectly, into a number of treaties and other international legal instruments.

One of the first examples of this sentiment in play was found in the 1989 Lomé Convention on trade where, even though the term sustainable development was not out-rightly stated, the concept of sustainable development was inculcated. The Convention states that States that

²⁰³ Report of the World Commission on Environment and Development, *Our Common Future* (UN 1987) (the Brundtland Report).

²⁰⁴ ibid 5.

²⁰⁵ ibid 41.

²⁰⁶ John C. Dernbach and Federico Cheever, 'Sustainable Development and Its Discontents' (2015) 4(2) Transnational Environmental Law 247.

 $^{^{207}}$ Brundtland Report (n 203) 41-42.

signed on to it must aim to ensure the environment is protected and natural resources are preserved in such a way that encourages immediate growth in the living standards of people while at the same time ensuring future generations are protected.²⁰⁸

The 1992 Rio Declaration on Environment and Development, a document published by the UN, was another notable international instrument which imbibed the spirit of the principle of sustainable development. The document set out twenty seven (27) principles aimed at guiding countries and the global community, as a whole, on how to attain a more sustainable world. Within the Rio Declaration, the word 'sustainable development' was referred to in eight (8) out of the twenty seven (27) principles.²⁰⁹

The principle was also recognized in the 1992 UNFCCC, the first official global climate change governance instrument, wherein it was stated that "*Parties should protect the climate system for the benefit of present and future generations of humankind*..."²¹⁰ More recently, the Paris Agreement of 2015, the latest global governance initiative to combat climate change, puts sustainable development as a central principle to be adhered to when combatting the issue of climate change.²¹¹

Apart from the application of the principle in various international legal instruments, sustainable development also found application in some of the decisions made by the International Court of Justice (ICJ).²¹² One of the most referenced decided cases by the ICJ, in line with the application of the principle of sustainable development, was the case of *Gabčíkovo-Nagymaros Project*.²¹³ The case involved a bilateral treaty between Hungary and

²⁰⁸ The Lomé Convention 1989, Art 33.

²⁰⁹ The Rio Declaration on Environment and Development (Rio Declaration) 1992, Principles 1, 4, 7, 8, 9, 12, 22 and 24.

²¹⁰ UNFCCC 1992, Art 3(1).

²¹¹ Paris Agreement 2015, para 11.

²¹² Sands, Peel et al (n 197) 219.

²¹³ (1997) ICJ Reports 78.

Slovakia regarding the construction of dams and other projects along the border between the two countries. The ICJ here noted that recognition of sustainable development in the case would involve reconciling *"economic development with protection of the environment*"²¹⁴.

The global application of the principle of sustainable development has not been limited to the international realm alone and has been given prominence in different subject areas from law to business and education. There have been a plethora of publications, commentary and conferences professing the principle of sustainable development.²¹⁵

The danger, with the plethora of voices, is that sustainable development might become a principle without a clear definition but open to interpretation based on a writer's preference which can lead to the principle becoming irrelevant and merely fashionable.²¹⁶ This possibility has inspired scholars, based on the Bruntland Report, to espouse what sustainable development stands for by classifying it into three different pillars.

2.4.2 Pillars of Sustainable Development

The Brundtland Report defines development as a "*progressive transformation of economy and society*".²¹⁷ This form of development, which is both sustainable and transformative, is best understood under three pillars or dimensions.²¹⁸ It can be stated that sustainable development can only be fully universally achieved when there exists a balance between: environmental protection; social development; and economic development.²¹⁹ This model goes in line, to a certain extent, with the tenets of the Brundtland Report. The Report states that for sustainable

²¹⁴ ibid para 140.

²¹⁵ Dernbach and Cheever (n 206) 248.

²¹⁶ Bill Hopwood, Mary Mello and Geoff O'Brien, 'Sustainable Development: Mapping Different Approaches' (2005) 13(1) Sustainable Development 40.

²¹⁷ Brundtland Report (n 203) 41.

²¹⁸ Ross (n 14) 33.

²¹⁹ Kates, Parris and Leiserowitz (n 13) 8.

development to be achieved, the environment must be catered for while also maintaining economic and social development.²²⁰

It is however interesting to note that the human race did not start off with people trying to understand and attain a more rounded version of sustainable development wherein all the three pillars were adequately catered for. The history of the human race is one filled with a focus on economic development and enrichment. There was little focus on attaining social development in terms of equal growth or development that was mindful of future generations. There was even less focus on protecting the environment.²²¹

The overarching mind-set was geared towards maximizing self-wealth and development. This mind-set birthed the industrial revolution, capitalism and modern technological advancement.²²² This economic first mind-set can also be referred to as the anthropocentric-centred mind-set wherein the environment was not seen as something that needed protecting but mainly as an instrument for human enrichment.²²³ This mind-set views the environment as *"an element (or a sum of components) submitted to man and to his necessities"*.²²⁴

This mind-set of striving to attain economic growth above everything else, can arguably be said to fall under what can be termed as a weak interpretation or version of sustainable development.²²⁵ An example of the weak stance or version of sustainable development was seen playing out in how the situation with the Hetch-Hetchy valley, in San Francisco, USA,

²²⁰ Brundtland Report (n 203) 41.

²²¹ Gail E. Henderson, 'Rawls and Sustainable Development' (2011) 7(1) McGill International Journal of Sustainable Development Law and Policy 10.

²²² Hopwood, Mellor and O'Brien (n 216) 38.

²²³ Ross (n 14) 35.

 ²²⁴ Fabrizio Fraccia, 'The Legal Definition of Environment: From Rights to Duties' (2005) Bocconi Legal Studies Research Paper 06/09, 11 http://ssrn.com/abstract=850488> accessed 14 May 2014.
 ²²⁵ Ross (n 16) 14.

was handled.²²⁶ There was a great and well publicized congressional debate, spanning 1906 to 1913, on whether or not the valley, which was seen as a national park, was to be converted into a dam. This followed an earthquake, which occurred in the city in 1906, affecting the city's water supply. The debates were anchored mainly by naturalist writer, John Muir, and the then head of the US Forest Service, Gifford Pinchot.

Muir argued that the dam should be built somewhere else stating that the valley was meant to be preserved and protected.²²⁷ Pinchot, on the other hand, argued that the valley and the environment as a whole was protected solely for the benefit of the human population as a resource source.²²⁸ The US Congress agreed with Pinchot by passing the Raker Act of 1913 which approved the construction of the dam which is now known as the O'Shaughnessy Dam.

The dam continues to be a main source of water to the people of San Francisco.²²⁹ The Hetch-Hetchy valley and the resultant creation of the dam can be said to be an example of the weak version of sustainable development in play. This is because it showed a focus on catering for the economic and social pillars while environmental protection was side-lined. Issues have arisen where the mind-set of human are more tilted towards strictly economic development which may lead to non-sustainable development.

A non-sustainable version strives on the human natural instinct to dominate. Francis Bacon²³⁰, a renowned English philosopher, aptly captures this instinct, especially the relationship with

²²⁶ Andrew J. Hoffman and Lloyd E. Sandelands, 'Getting right with nature: Anthropocentrism, Ecocentrism and Theocentrism' (2004) Ross School of Business Working Paper Series 903, 8 <<u>http://ssrn.com/abstract=901660></u> accessed 17 May 2014.

²²⁷ ibid 6.

²²⁸ L. Hott and D. Garey, 'The Wilderness idea: John Muir, Gifford Pinchot and the first great battle for wilderness' (1989) Video documentary by Direct Cinema Limited: Santa Monica, CA in Andrew J Hoffman and Lloyd E Sandelands, 'Getting right with nature: Anthropocentrism, Ecocentrism and Theocentrism' (2004) Ross School of Business Working Paper Series 903, 8 http://srn.com/abstract=901660> accessed 17 May 2014.
²²⁹ Sarah E. Null and Jay R. Lund, 'Reassembling Hetch Hetchy: water supply without O'Shaughnessy dam' (2006) 42(2) JAWRA 395- 396.

²³⁰ Hoffman and Sandelands (n 226) 8.

the environment, by stating human's must *"torture nature's secrets from her"*.²³¹ The history of the human population is such that the lines between a weak version of sustainable development and a non-sustainable development status has been continuously blurred. The result of this lopsided approach or non-approach towards sustainable development has been social inequality and global environmental problems evidenced in form of high levels of global poverty and growing threat of climate change.²³²

The global community, especially in the face of these global issues, has gradually developed a drive, or at least increased discussions relating, to attaining a more balanced form of sustainable development where the social, economic and environmental pillars are adequately catered for. This has led to some scholars like Andrea Ross²³³ to opine that a strong version of sustainable development is one where environmental sustainability is prioritized, especially in the face of growing global ecological issues.²³⁴

Her argument is well founded due to the fact that historically States, when attempting to balance all three pillars of sustainable development, usually instinctively revert to prioritizing the economic pillar.²³⁵ This argument has been supported by scholars like Erlin Holden, Kristin Linnerud and David Banister²³⁶ who all share the view that sustainable development is best achieved or utilised when the main focus is on social and environmental sustainability. They believe human nature always strives to attain economic growth which usually affects the attainment of the other two pillars of sustainable development.²³⁷ They argue that sustainable development should be an instrument through which a focus on inter- and intra- generational

- ²³⁴ ibid 36-37.
- ²³⁵ ibid.

²³¹ ibid.

²³² Ross (n 14) 35.

²³³ ibid 32.

²³⁶ Holden, Linnerud and Banister (n 202) 131.

²³⁷ ibid.

equity and long term planning to protect the environment are promoted whilst still ensuring basic global human needs are satisfied.²³⁸

It can therefore be assumed that they are clamouring for a version of sustainable development which caters to, arguably, the greatest problems affecting the world today: social inequality and environmental issues. This sentiment could be said to have prompted the UN General Assembly, after consulting and agreeing with 193 member countries, to publish the Sustainable Development Goal (SDGs) in 2015.²³⁹ The SDGs are a set of seventeen (17) goals which are meant to be "*a plan of action for people, planet and prosperity*"²⁴⁰. Some of the main aims of this report, while acknowledging the three pillars of sustainable development, is to tackle extreme poverty and to ensure urgent actions are taken to combat the problem of climate change.²⁴¹

The agenda requires all nations to come together to ensure the stated goals are considerably attained by the year 2030.²⁴² It can be said that the SDGs breakdown the three pillars into more relatable and, arguably, ambitious goals. This shows an increasingly global position that views sustainable development as the ideal approach by which social justice and environmental protection can be attained. The fight for social justice is seen in the initiatives against poverty and those striving towards achieving global equality.

The growing plethora of global environmental problems, top of which is climate change, has also led to an increased openness to viewing and adopting sustainable development as the ideal principle for ensuring global environmental protection is attained. This research aims to expand

²³⁸ ibid 131 -132.

 ²³⁹ Transforming our World: the 2030 Agenda for Sustainable Development, A/RES/70/1 (UN 2015) (SDGs).
 ²⁴⁰ ibid 3.

²⁴¹ ibid.

²⁴² Irina Zapatrina, 'Sustainable Development Goals for Developing Economies and Public-Private Partnership' (2016) 11(1) European Procurement and Public Private Partnership Law Review 39.

on the latter definition attached to the principle of sustainable development, as a tool for ensuring environmental governance. Environmental sustainability as a pillar of sustainable development, which prioritizes environmental protection, would be examined in the next subsection as a means of effectively governing climate change.

2.4.3 Promoting Environmental Sustainability

Environmental sustainability has been argued by some scholars to be the main pillar behind the creation of the principle of sustainable development. Scholars like Andrea Ross²⁴³ believe sustainable development, as a legal principle, was mainly born out of the need to promote increased focus on environmental care and protection. There exists some justification for this assertion when looking at the inspiration for the publication of the Brundtland Report, which publicized the concept of sustainable development.

Gro Halem Brundtland, the then chairperson of the World Commission on Environment and Development (later renamed the Brundtland Commission), states that the UN General Assembly requested for a report that suggests long-term strategies to aid in the protection of the environment and ensure the attainment of sustainable development.²⁴⁴ This was to be done in view of trying to ensure increased cooperation within the international community and noting the economic differences amongst States, especially the developing countries.²⁴⁵

The sentiment of environmental sustainability being the main approach by which sustainable development practices can be promoted, has been supported by Sands and Peel.²⁴⁶ They believe that there exists four recurring themes in most international agreements which back up this position. The first element is the principle of intergenerational equity which requires that

²⁴³ Ross (n 14) 37.

²⁴⁴ Brundtland Report (n 203) 5.

²⁴⁵ ibid.

²⁴⁶ Sands, Peel et al (n 197) 218.

natural resources should be approached in a way that benefit future generations.²⁴⁷ The second element is the principle of sustainable use which follows on from the first principle by stating the natural resources should be exploited in a way that is considered prudent or sustainable.²⁴⁸

The third element is the principle of equitable use which states that countries must be mindful of the environment of other countries especially when dealing with natural resources.²⁴⁹ The fourth and last element is the principle of integration which believes that economic decisions and development aimed actions should be carried while integrating environmental concerns.²⁵⁰

In aligning with these views, it may be argued that a prioritization of an environmental sustainability approach can be likened to striving for a strong version of sustainable development. This is essential due to the growing global environmental concerns. Therefore, a viable sustainable society can be said to be attained when everyone, irrespective of their economic status, make economic and social decisions that prioritize the protection of the environment.

This view is supported by Ross²⁵¹ who goes on to state that "everything we do is constrained by the earth's ecosystem and there is a need to revisit the basic principles that govern our decision making to ensure environmental concerns have a greater influence".²⁵² The argument can therefore be made that there is the need to adopt and prioritize an environmental sustainability approach in the face of growing global environmental problems, like climate

²⁴⁷ ibid.

²⁴⁸ ibid.

²⁴⁹ ibid.

²⁵⁰ ibid 219.

²⁵¹ Ross (n 14) 37.

²⁵² ibid.

change, which cut across disciplines and issues such as human rights, poverty, agriculture, health, trade and even tourism.²⁵³

2.4.4 Criticism of Sustainable Development

As great as the principle of environmental sustainability and even the wider principle of sustainable development might seem, it is not devoid of criticism. The almost grandeur status of the principle, and the fact that it is open to different interpretations based on the pillar being focused on, has expectedly led to a plethora of criticisms from a range of scholars. Some scholars are of the opinion that sustainable development is a principle which is too complex²⁵⁴ and vague²⁵⁵. Some have gone on to opine that the principle pushes for a utopian society which is feasibly unattainable.²⁵⁶

Dernbach and Cheever²⁵⁷ have gone on to classify the critics of sustainable development into three broad categories. The first class of critics believe sustainable development is too complex making it an unattractive principle to inspire people to act.²⁵⁸ The second class of critics believe the vagueness of the principle leaves room for inaccurate definitions and even manipulation.²⁵⁹ The third class of critics are of the opinion that the earth is in a very dire state and the adoption of a principle like sustainable development is too late to make any useful impact.²⁶⁰

The first class of critics see the concept of sustainable development as a boring concept which is not globally appealing.²⁶¹ These class of critics see sustainable development as a concept

²⁵³ Bader Al-Dafa, 'Strategies and Goals for Environmental Sustainability' (2008) 38(3) Environmental Policy and Law 154.

²⁵⁴ Holden, Linnerud and Banister (n 202) 130.

²⁵⁵ Dernbach and Cheever (n 206) 247.

²⁵⁶ Peter Haas, 'Is Sustainable Development Politically Sustainable?' (1996) 3(2) Brown Journal of World Affairs 239.

²⁵⁷ Dernbach and Cheever (n 206) 248.

²⁵⁸ ibid 248 -249.

²⁵⁹ ibid 249.

²⁶⁰ ibid.

²⁶¹ ibid 268.

which is widely known and identified with because it has a fashionable appeal to it even though, in reality, it is not one they really adhere to.²⁶² Hilary Hove²⁶³, a senior political analyst on the environment and climate change for both the UN and Canada, takes this criticism to another level. She believes that even though most developing countries are signatories to sustainable development initiatives, they largely do not prioritize or even identify with these initiatives.²⁶⁴

She states the reason for this largely lies in the fact that the Western world is advancing the principle of sustainable development more in line with the protection of the environment.²⁶⁵ She believes that even though this goes in line with combating global environmental issues, it does not completely resonate with countries that have a largely starving population.²⁶⁶ A good example of this can be seen in the case of Nigeria wherein the country is a party to different global initiatives to combat climate change through the adoption of the principle of sustainable development. The country has however taken little to no action, nationally, in line with their international obligations.

In response to this first criticisms, the international community has taken steps, through the publication of the SDGs and other international instruments, to galvanize States towards buying into the principle of sustainable development. The SDGs, even though very ambitious, can still be seen as a step towards ensuring all the interests of people, be it in terms of gender²⁶⁷ or environmental concerns,²⁶⁸ in developed and developing countries are catered for²⁶⁹.

²⁶² Holden, Linnerud and Banister (n 202) 130.

²⁶³ Hilary Hove, 'Critiquing Sustainable Development: A Meaningful way of Mediating the Development Impasse?' (2004) 1(1) Undercurrent 49.

²⁶⁴ ibid.

²⁶⁵ ibid 51.

²⁶⁶ ibid.

²⁶⁷ SDGs (n 239) for example in Principle 5 - Gender Equality and Principle 10 – Reduced Inequalities.

²⁶⁸ ibid for example Principle 6 - Clean Water and Sanitation and Principle 7 - Affordable and Clean Energy.

²⁶⁹ ibid for example Principle 1 – No Poverty and Principle 8 – Decent Work and Economic Growth.

However, an attempt to view the SDGs or sustainable development as a whole as a principle that is all encompassing, could be said to be the motivation for the second class of critics. The second class of critics argue that sustainable development is a very vague principle which does not have a clear stance.²⁷⁰ This class of critics see sustainable development as an *"overloaded and... essentially contested concept*".²⁷¹ It can be argued that the principle attempts to do too much or push too many agenda's at the same time. The criticism can be said to be bolstered with the existence of the different pillars which call for focus to be given to different areas of society at the same time. Peter Haas²⁷² succinctly puts it that:

"Sustainable development suggests a simultaneous effort toward eliminating poverty, and accelerating economic growth (or at least development) and democratization, while advancing the causes of human rights, environmental protection, and territorial security"²⁷³

This statement was made by Haas in 1996 and still remains true till date. This fact, especially the move towards pushing for both economic development and environmental protection, has come under huge criticism. Critics like Hove²⁷⁴ have stated that both pillars are highly contradictory to each other and an effort to mesh both would inevitably lead to failure. This is why scholars like Holden, Linnerud and Banister²⁷⁵ believe that sustainable development is multifaceted leading to the possibility of the principle being interpreted in very different ways. They believe there exists a weak version of sustainability and a strong version of sustainability.²⁷⁶

A good example of both versions of sustainable development playing out can be seen with the Hetch-Hetchy valley²⁷⁷ situation. John Muir clamoured for the protection of the valley while

²⁷⁰ Dernbach and Cheever (n 206) 272.

²⁷¹ Haas (n 256) 242.

²⁷² ibid.

²⁷³ ibid 240.

²⁷⁴ Hove (n 263) 51.

²⁷⁵ Holden, Linnerud and Banister (n 202) 132.

²⁷⁶ ibid.

²⁷⁷ See section 2.4.2 above.

Gifford Pinchot believed that the valley should be used to supply water to the people. Both perspectives could arguably be said to profess a version of sustainable development, with the former being a strong version of sustainable development and the latter being a weaker version.

Making a dam in place of the valley could justifiably be seen as an act of sustainable development because it ensures economic and social sustenance of the people affected. In the same vein, the argument put forward to maintain the valley and find another location for the erection of the dam could also be said to be an act of sustainable development because it professes the protection of the environment. This example shows how confusing interpreting sustainable development can be.

In response to this second group of critics, and in the face of the various global environmental issues, it would be ideal if sustainable development puts environmental protection first. This proposition is supported by several authors²⁷⁸ who state that development should be done mainly in line with the protection of the environment. Holden, Linnerud and Banister²⁷⁹ go on to state that the economic sustainability should not even be considered as a pillar on its own but rather should be seen as a means through which the other pillars are achieved.

This argument is supported by Farley and Smith²⁸⁰ who propose that environmental sustainability should be viewed as the foundation upon which all other sustainable development goals would follow on from. It may even be argued that human history shows a propensity to focus on economic growth and development. On that basis, the focus of sustainable development can be utilized to ensure the attainment of social issues and governance of environmental issues with the economy serving as a means to achieve these two pillars.

²⁷⁸ See authors like: Heather M. Farley and Zachary A. Smith, *Sustainability: If It's Everything, Is It Nothing?* (Routledge 2014) 150; Holden, Linnerud and Banister (n 202) 131; and Dernbach and Cheever (n 206) 276. ²⁷⁹ Holden, Linnerud and Banister (n 202) 131.

²⁸⁰ Farley and Smith (n 278) 151.

The final group of critics believe that the principle of sustainable development, or more specifically environmental sustainability, cannot ensure success due to the dire state of the environment. This group of critics may be categorized as pessimists because they believe global environmental issues, like climate change, are irreversible and cannot be combatted or corrected. They also believe there is the danger that natural resources will run out.²⁸¹ Some of these critics have proposed a move from sustainable development to resilience.

This is the opinion of Dennis Meadows²⁸², a retired science professor, who believes that global issues, like climate change, cannot be escaped from. He is of the opinion that it is no longer feasible to adopt a sustainable development approach and believes it is time for people to adopt a resilient approach.²⁸³ The resilient approach professes that everyone should build up their resistance in expectation of the worst case scenario becoming a reality.²⁸⁴

The danger with this mind-set is that it can easily lead to social injustice because humans may go into survival mode which will potentially lead to more inequality and might even speed up the changing climate.²⁸⁵ In addition, even though science is not yet in unison on the potential possibility of combating environmental issues, the process of imbibing environmental sustainability practices is clearly better than going into survival mode.

²⁸¹ Dernbach and Cheever (n 206) 279.

²⁸² Dennis Meadows et al, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (Universal Books 1972) in John C. Dernbach and Federico Cheever, 'Sustainable Development and Its Discontents' (2015) 4(2) Transnational Environmental Law 280.

²⁸³ Megan Gambino, 'Is It Too Late For Sustainable Development? : Dennis Meadows thinks so. Forty Years after his book *The Limit to Growth*, he explains why' (Smithsonian Magazine, 15 March, 2012) <</p>
accessed 20 May 2020.

²⁸⁴ ibid.

²⁸⁵ Dernbach and Cheever (n 206) 283.

2.5 Climate Change and Environmental Sustainability: Schools of Thought

In taking an approach that is not defeatist and which does not subscribe to humans having a resilient mind-set, this thesis chooses to push for the adoption of an environmental sustainability approach to climate change governance. This approach is gaining more widespread credence, in the global community, as the approach through which the multi-layered problem of climate change can be governed.²⁸⁶

There is, however, still some level of dissonance amongst scientists and policy makers on the right approach to be taken when governing climate change or the environment as a whole. This can be traced to the different ethical positions and viewpoints motivating policy makers in their relationship with the environment.²⁸⁷

Scholars like O'Hara and Abelshon²⁸⁸ agree with this position stating that the ethical drive of a State plays a role in how open the State is to adopting an environmental sustainability governance approach to climate change. They state that an anthropocentric attitude, which prioritizes human needs over and above everything else, will most likely downplay environmental and climate change governance.²⁸⁹ They believe this prevailing attitude and ethical view to governance, contributed to the rise in the anthropocentric greenhouse gases in the atmosphere. They believe this is the same attitude hampering the adoption of an environmental sustainability approach to climate change governance.²⁹⁰

²⁸⁶ Chad Carpenter, 'Businesses, Green Groups and the Media: the Role of Non-Governmental Organizations in the Climate Change Debate' (2001) 77(2) International Affairs 321.

 ²⁸⁷ Lisa Kretz, 'Climate Change: Bridging the Theory-Action Gap' (2012) 17(2) Ethics and the Environment 9.
 ²⁸⁸ O'Hara and Abelsohn (n 73) 25.

²⁸⁹ ibid.

²⁹⁰ ibid.

Alexander Gillespie²⁹¹ had, as early as 1997, also commented on this attitudinal issue in his discussions of the different motivations behind human's choosing to protect the environment. He believes that even though there is a move towards an increased consciousness of the need to protect the environment, there still exists misplaced or even contradictory objectives behind the steps taken to protect the environment.²⁹² His analysis could be said to separate general environmental governance into stages.

He believes the first stage of governance involves determining the motivation or the reason behind the drive to protect the environment.²⁹³ He refers to this as deep ecology. The second stage of governance, according to Gillespie, involves the different ways of achieving environmental governance. He refers to this as social ecology.²⁹⁴ Gillespie used the term radical ecology to explain the different governance stages of environmental protection that exists which he separates into deep ecology and social ecology.²⁹⁵

Deep ecology or the question relating to the motivation behind the protection of the environment, is usually showcased in different ways.²⁹⁶ Bill Devall²⁹⁷ agrees with this position but utilizes the term deep ecology to represent one of the ethical motivations behind the protection of the environment. Devall²⁹⁸ criticizes the use of terms like radical ecology or revolutionary ecology because he believes they potentially take away from the environmental issues due to the emotive meanings attached to the words.

²⁹⁶ ibid 2.

²⁹¹ Alexander Gillespie, International Environmental Law, Policy and Ethics (OUP 1997) 1.

²⁹² ibid.

²⁹³ ibid.

²⁹⁴ ibid.

²⁹⁵ ibid.

²⁹⁷ Bill Devall, 'The Deep Ecology Movement' (1980) 20(2) Natural Resources Journal 299.

²⁹⁸ ibid.

He classifies these motivational drives into what he refers to as deep ecology and dominant paradigm.²⁹⁹ He believes deep ecology views human beings as part of nature and not above or outside it with actions to protect the environment stemming from such a mind-set.³⁰⁰ The dominant paradigm on the other hand, he explains, views the motivation for taking any step to protect the environment as a move towards achieving progress which is measured through the level of economic growth attained.³⁰¹

Patrick Curry³⁰² can be said to simplify the discussion by stating that the question relating to motivation should be examined based on the value humans place on protecting the environment. This sentiment is also supported by Lisa Kretz³⁰³ who opines that understanding the value humans place on themselves, in relation to the environment, will enable a better understanding of the motivation behind human action as it relates to nature and the nonhuman world. She believes such an understanding can lead to clearer uniformity in policy action.³⁰⁴

Curry,³⁰⁵ in line with his view of the different human value positions in relation to environmental protection, states that there exists a human centred value system (anthropocentric) and the environment centred value system (ecocentric). This view can arguably be said to be the most accepted view taken by authors when looking at the motivations behind the protection of the environment. Gillespie³⁰⁶, to some extent, was already on board with this view when signifying the different motivations that drive environmental protection.

He stated that there exists various value systems when examining human relation to the environment. He believes the anthropocentric outlook, the more predominant outlook, is a

²⁹⁹ ibid 299-300.

³⁰⁰ ibid 303.

³⁰¹ ibid 300.

³⁰² Patrick Curry, *Ecological Ethics: An Introduction* (2nd edn, Polity 2018) 7.

³⁰³ Kretz (n 287) 15.

³⁰⁴ ibid.

³⁰⁵ Curry (n 302) 7.

³⁰⁶ Gillespie (n 291) 2.

shallow environmental ethical attitude which places premium value on human existence over anything else.³⁰⁷ He contradicts this with what he refers to as the holistic environmental ethics which is a motivational outlook that places value on the non-human nature as the basis for environmental protection.³⁰⁸

Some other authors have gone in a slightly different direction by incorporating religion as a motivational reason behind protecting the environment. One of the main proponents of this was R. J. Berry³⁰⁹ who states that stewardship could be viewed as a motivational reason behind human being's drive to protect the environment. Stewardship generally places value on the relationship of man and the environment based on the belief that humans have a divine mandate to act as trustees or stewards of the earth.³¹⁰

There is an obvious plethora of views as it relates to the different reasons motivating human relationship with the environment. However, for uniformity and in line with consolidating the main theoretical and philosophical positions, this thesis will limit the conversation to only: anthropocentric; ecocentric; and environmental stewardship. The following discussions will expatiate on how these different motivations relate to the steps taken to combat climate change and encourage the acceptance of an environmental sustainability approach to governance.

2.5.1 Anthropocentric View

Anthropocentrism is arguably the most universally recognized and contended view or value theory relating to the relationship between human beings and the environment.³¹¹ This outlook places human existence in a primal position and regards the existence of other life forms as

³⁰⁷ ibid 1.

³⁰⁸ ibid 2.

³⁰⁹ R. J. Berry, 'Stewardship: A Default Position?' in R. J. Berry (eds), Environmental Stewardship: Critical Perspectives – Past and Present (1st edn, T&T Clark 2006) 1. ³¹⁰ ibid 12.

³¹¹ Curry (n 302) 54.

instrumental to the sustenance of the supremacy of human existence.³¹² This view point has been held by historical philosophers and thinkers. Protagoras once stated that "*Man is the measure of all things*".³¹³ Sophocles³¹⁴ opined that the world is full of wonderful things but human beings are supreme with the ability to control the wonders on earth to their own benefit.

Immanuel Kant³¹⁵ took a similar view where he stated that the sole purpose of everything in the environment is to be a tool for the progression of man. This view point shows a placement of value on human supremacy over everything else. The anthropocentric view point is further captured by Ludmilla Jordanova³¹⁶ who states that the centre stage of all existence belongs to man and nature can never take over the spot of man. This value position has led to Patrick Curry³¹⁷ terming the anthropocentric view point as 'human chauvinism'.

Some scholars like, Robyn Eckersley,³¹⁸ have gone as far as suggesting that the anthropocentric view can be referred to as 'human racism', because he considers it to be a view that places high supremacy on the existence of man over nature. This mind-set, as the basis for human's relationship with the environment, can be said to have been the historical motivating mind-set of human beings when relating to the environment. The playing out of this view point, could be seen in the drive of humans to maximize their gains from the environment while having little care for the 'health' of the environment.

The culmination of what can be termed as the strong interpretation of the anthropocentric view, played out with the rise of industrialization and the focus on economic growth which then led

³¹² J. Baird Callicott, 'Non-Anthropocentric Value Theory and Environmental Ethics' (1984) 21(4) American Philosophical Quarterly 299.

³¹³ Gillespie (n 292) 4.

³¹⁴ ibid.

³¹⁵ ibid.

³¹⁶ Ludmilla Jordanova, 'The Interpretation of Nature: A Review Article' (1987) 27(1) Comparative Studies in Society and History 195.

³¹⁷ Curry (n 302) 55.

³¹⁸ Robyn Eckersley, 'Beyond Human Racism' (1998) 7(2) Environmental Values 165.

to significant increases in greenhouse emissions.³¹⁹ Curry³²⁰ criticizes this extreme view of anthropocentrism by stating that holding on to a belief system which unjustifiably places human beings in a privileged position over the rest of the environment would result in an abuse of the environment and everything in it. This extreme position has however been softened due to numerous environmental problems, like climate change, and a greater understanding of how human being's actions have affected the environment.

Dennis O'Hara and Alan Abelsohn³²¹ succinctly capture the new anthropocentric motivation behind human interaction with the environment by stating that there is a growing global awareness that *"it is not possible to have healthy humans on a sick planet"*.³²² This notion is supported by Neil Evernden.³²³ He opines that the environment exists to serve as a resource for human beings but adds that, even though humans have the right and authority to exploit the environment, there still exists an obligation on humans to ensure this resource (the environment) is protected.³²⁴

This is what Gillespie³²⁵ refers to as self-interest being a justification for the protection of the environment. He believes that international initiatives to protect the environment, which can also be extended to the actions taken to combat the threat of climate change, have all been done mainly in view of preserving and protecting human existence.³²⁶ This position is evidenced in a number of international agreements and treaties aimed at protecting the environment and

³¹⁹ O'Hara and Abelsohn (n 73) 25.

³²⁰ Curry (n 302) 55.

³²¹ O'Hara and Abelsohn (n 73) 26.

³²² ibid.

³²³ Neil Evernden, *The Natural Alien: Humankind and Environment* (1st edn, University of Toronto Press 1985)
23.

³²⁴ ibid.

³²⁵ Gillespie (n 291) 19.

³²⁶ ibid 15–17.

combating climate change professing the adoption of an environmental sustainability approach to governance in view of safeguarding the human population.

This is exemplified in the 1992 Rio Declaration which starts off by stating that *"human beings are at the centre of concerns for sustainable development"*.³²⁷ Meaning that the adoption of sustainable development as an approach to governance and a vision of what an ideal society should be, are both centred on human well-being. Another example of how anthropocentrism is increasingly becoming more about self-preservation, as a reason for protecting the global environment, can be seen in the international steps to combat climate change.

The 1992 UNFCCC states that the ultimate objective of the Convention is to reduce the level of greenhouse gases emitted into the atmosphere so as to ensure food production and economic development are not affected while ensuring human existence continues in a sustainable manner.³²⁸ This position is also mirrored in the latest global governance instrument to combat climate change, the 2015 Paris Agreement. The stated goals found in the Agreement of: ensuring food security; creation of quality jobs; combating poverty; and reducing the general risks to humans³²⁹, shows how combating climate change is motivated by the drive to ensure human preservation.

In spite of this growing interpretation of anthropocentrism being a value position driven by the goal of attaining self-preservation, the criticism of the position placing the ultimate value on human supremacy, still remains. The position can potentially lead to a stifling of environmental protection initiatives which may be considered too expensive or onerous. This sentiment was captured by Gillespie³³⁰ who believes an anthropocentric and self-interest motivation system

³²⁷ The Rio Declaration 1992, Principle 1.

³²⁸ UNFCCC 1992, Art 2.

³²⁹ Paris Agreement 2015, para 9 - 11.

³³⁰ Gillespie (n 291) 27.

does not always result in full committal, of a nation, to protect the environment and possibly combat climate change.

He attributes this to the fact that there exists possible situations where the economic selfinterest of the nation might go contrary to the need to protect the environment.³³¹ This situation was exemplified, earlier in this chapter, with the Hetch-Hetchy valley situation in the state of California in the USA. There was the choice between protecting the national park and converting the park into a dam. The latter was chosen showcasing a prioritizing of the environment as a resource centre for man.³³²

This position could also be seen playing out with some developing countries who, for the most part, are more willing to focus on economic gain and self-preservation over and above putting a higher value on the protection of the environment.³³³ African countries, like Nigeria, are willing to engage in global discussions relating to environmental protection but are hesitant to take on the governance responsibilities.³³⁴

There is an unspoken belief by most African leaders that environmental governance should not affect their search for economic growth. Emeka Amechi³³⁵ captures the anthropocentric mindset of the majority of African leaders by stating that they *"subscribe to the view that environmental conservation must not be inimical... but should contribute to the overall socio-economic development of their citizens*"³³⁶.

³³¹ Ibid.

³³² See more in section 2.4.2 above.

³³³ Eric Biber, 'Climate Change and Backlash' (2009) 17 N. Y. U. Environmental Law Journal 1298.

³³⁴ Amelia Chizwala Peterson, 'Articulating Moral Bases for Regional Responses to Deforestation and Climate Change: Africa' (2013) 38(1) William and Mary Environmental Law and Policy Review 114.

³³⁵ Emeka Polycarp Amechi, 'Linking Environmental Protection and Poverty Reduction in Africa: an analysis of the regional legal responses to environmental protection' (2010) 6(2) Law, Environment and Development Journal 112.

³³⁶ ibid 128.

The negative drawback of an anthropocentric driven environmental protection action, is that actions will most likely be left to cost-benefit analysis.³³⁷ If the cost of protecting the environment is perceived to not result in an immediate benefit, there might be a hesitation to act. This is seen playing out with climate change due to the fact that it is a 'delayed harm' whose effects are experienced in patches and not in equal intensity globally.³³⁸

2.5.2 Ecocentric View

The ecocentric view is usually categorized as the polar opposite of the anthropocentric view. The ecocentric view, or ecocentrism, is a motivational view that places premium value on the environment.³³⁹ It proffers that environmental protection should be carried out because the environment or the natural world has the ultimate value.³⁴⁰ Gillespie³⁴¹ was of the opinion that the ecocentric position, as the basis for protecting the environment, could be said to be a departure from the narrow-human focused attitude to a more holistic view wherein the highest value is placed on the ecosystem as a whole and not only on humans.

The position clamoured by the ecocentric view has been contended and subjected to varying definitions. Curry³⁴² interprets the ecocentric position in two ways. He calls the first position Zoocentrism wherein the motivation behind protecting the environment comes from the belief that premium value belongs to the non-human world.³⁴³ He calls the second position Biocentrism wherein the premium value is placed on life and other life organisms as the basis for protecting the environment.³⁴⁴

³³⁷ Callicott (n 312) 299 – 300.

³³⁸ Biber (n 333) 1301.

³³⁹ Callicott (n 312) 299.

³⁴⁰ Curry (n 302) 57.

³⁴¹ Gillespie (n 291) 133.

³⁴² Curry (n 302) 57.

³⁴³ ibid.

³⁴⁴ ibid.

This proposition was also supported by Robyn Eckersley³⁴⁵ who recognizes the existence of these two possible philosophical strands of ecocentrism. Curry³⁴⁶ however notes that these minor motivational streams are less clamoured for and ecocentrism tends to be attributed to a more inclusive meaning. This view is supported by scholars like Andrew Dobson³⁴⁷ and Anna Bramwell³⁴⁸ who, in their various works, acknowledge that ecocentrism should be seen as an ethical and philosophical ideology that puts optimum value on the ecology system and everything in it.³⁴⁹

Scholars like Thomas Gladwin, James Kennelly and Tara-Shelomith Krause³⁵⁰ have taken this analysis a step further by stating ecocentrism should be understood as a fusion of sustainability and an ecocentric outlook. They coined this as *"sustaincentrism"*³⁵¹. They argue that ecocentrism should be viewed as an ideology that professes sustainability for both human and non-human life.³⁵² The 'sustaincentrism' argument has, however, been criticized by Ronald Purser, Changkil Park and Alfonso Montuori³⁵³ in their joint paper.

They criticize the concept of sustainable development and ecocentrism, stating a combination of both concepts might lead to a view that maintains the status quo wherein human interests are prioritized over the protection of the environment.³⁵⁴ They also criticize the anthropocentric mind-set for being the root cause of all the environment problems facing the world.³⁵⁵ They

³⁴⁵ Robyn Eckersley, *Environmentalism and Political Theory: Toward an Ecocentric Approach* (State University of New York Press 1992) 58.

³⁴⁶ Curry (n 302) 57.

³⁴⁷ Andrew Dobson, *Green Political Thought* (4th edn, Routledge 2007) 10.

³⁴⁸ Anna Bramwell, *Ecology in the 20th Century: A History* (Yale University Press 1989) 1.

³⁴⁹ Dobson (n 347) 15.

³⁵⁰ Thomas N. Gladwin, James J. Kennelly and Tara-Shelomith Krause, 'Shifting Paradigms for Sustainable Development: Implications for Management Theory and Research' (1995) 20(4) Academy of Management Review 890.

³⁵¹ ibid.

³⁵² ibid 891.

 ³⁵³ Ronald E. Purser, Changkil Park and Alfonso Montuori, 'Limits to Anthropocentrism: Towards an Ecocentric Organization Paradigm?' (1995) 20(4) Academy of Management Review 1053.
 ³⁵⁴ ibid 1068.

³⁵⁵ ibid 1053.

propose for a more pro-environmental outlook to protecting the environment which would concentrate on prioritizing environmental protection over anything else.³⁵⁶

This view is supported by Bob Douglas³⁵⁷ who also blames the anthropocentric mind-set for the different global environmental problems. He calls for a change of mind-set to a more ecocentric world view which places the ultimate value on attaining a healthy ecosystem.³⁵⁸ This act of placing the ultimate value on the environment, is however a position that can be said to go against natural human nature and may not be viable.

Frederick Bender³⁵⁹ agrees with this argument by stating that human mind-set is automatically geared towards exploiting the environment. He believes the only way ecocentrism can serve as the mind-set to imbibe, when interacting with the environment, is if human beings can get to the stage where the environment is considered sacred and invaluable.³⁶⁰ Douglas,³⁶¹ in an arguably optimistic sense, believes the increased publicity given to global environmental issues may potentially lead to a change in value position wherein humans are more open to adopting an ecocentric view over an anthropocentric view point.

The prevailing evidence, as seen with the international treaties and agreements referenced above, is that there is a growing revision of the anthropocentric school of thought rather than an acceptance of the ecocentric school of thought. Scholars like Helen Kopnina and Haydn Washington³⁶² believe there is a reduction of the aggressive view point attached to

³⁵⁶ ibid 1061.

³⁵⁷ Bob Douglas, 'Transforming Human Society from Anthropocentrism to Ecocentrism: Can We Make It Happen in Time?' in Colin D. Butler, Jane Dixon and Anthony G. Capon (eds), *Health of People, Places and Planet: Reflections Based On Tony McMichael's Four Decades Of Contribution To Epidemiological Understanding* (ANU Press 2015) 609.

³⁵⁸ ibid.

³⁵⁹ Frederick L. Bender, *The Culture of Extinction: Toward a Philosophy of Deep Ecology* (Humanity Books 2003) 348'

³⁶⁰ ibid.

³⁶¹ Douglas (n 357) 614.

³⁶² Helen Kopnina, Haydn Washington et al, 'Anthropocentrism: more than just a misunderstood problem' (2018) 31 Journal of Agricultural and Environmental and Ethics 109.

anthropocentrism due to the plethora of environmental issues. They believe there is a growing understanding and consciousness of how protecting the environment is directly beneficial to human beings.³⁶³ This buttresses the position that self-preservation of human existence is gaining the most traction as the motivation behind actions carried out to protect the environment.

2.5.3 Environmental Stewardship

Apart from the anthropocentric and ecocentric schools of thought, there exists a less popular school of thought known as environmental stewardship. This ethical position is founded in theology. Here, there is a belief in the existence of a supreme being who created everything including human beings.³⁶⁴ Human beings were then given dominion over the environment. Baird Callicott³⁶⁵ goes on to explain that this dominion was not one of special privilege but rather one of special responsibility which requires that human beings relate with the environment in a virtuous way.

Environmental stewardship states that human beings have a divine right over the environment but this right comes with the responsibility of catering for the well-being of the environment.³⁶⁶ This position subscribes to the belief that humans were placed in the position of stewards or trustees of the environment. As trustees, human beings are answerable to God in how we handle the environment subject to our control.³⁶⁷ According to R. J. Berry³⁶⁸, the motivation for acting under this ideological stream is due to our divine status.

³⁶³ ibid 110.

³⁶⁴ Berry (n 309) 3.

³⁶⁵ Callicott (n 312) 302.

³⁶⁶ Curry (n 302) 34.

 ³⁶⁷ Robin Attfield, 'Environmental Sensitivity and Critiques of Stewardship' in R. J. Berry (eds), *Environmental Stewardship: Critical Perspectives – Past and Present* (1st edn, T&T Clark 2006) 80.
 ³⁶⁸ Berry (n 309) 8.

He goes on to state that humans have a dual status of being *Homo divinus* (divine beings) while also being *Homo sapiens* (earthly beings) which gives us a divine status requiring us to be responsible.³⁶⁹ The status of being stewards ultimately views that human beings have a higher status which comes with the responsibility of ensuring the healthy functioning of the whole ecosystem.³⁷⁰ Richard Bauckman³⁷¹, taking his inspiration from the Christian Bible, concludes that humans have been placed in the environment and not over it.

He states that even though the environment has been set up to assist the survival of human existence, humans are saddled with the responsibility of catering for it.³⁷² It can therefore be stated that there is a very close relationship between the anthropocentric view point and the environmental stewardship view point because both views place a high value on the status of human beings in the environment. Berry³⁷³ agrees with this assessment and states that there exists elements of anthropocentrism in environmental stewardship.

Edwin Etiyebo³⁷⁴, in his writings dealing with how Africans view the animal kingdom, states that there is loose form of this anthropocentrism amongst African communities. He believes African communities usually place God, or their representation of a divinity, at the apex of society followed by animals and plants.³⁷⁵ He concludes that there is a general belief that animals, plants and inanimate objects all have their value with humans serving as the carer of all things.³⁷⁶

 $^{^{369}}$ ibid 8 – 9.

³⁷⁰ Callicott (n 312) 302.

³⁷¹ Richard Bauckham, 'Modern Domination of Nature: Historical Origins and Biblical Critique' in R. J. Berry (eds), *Environmental Stewardship: Critical Perspectives – Past and Present* (1st edn, T&T Clark 2006) 33. ³⁷² ibid 35.

³⁷³ Berry (n 309) 9.

³⁷⁴ Edwin Etieyibo, 'Anthropocentrism, African Metaphysical Worldview, and Animal Practices: a reply to Kai Horsthemke' (2017) 7(2) Journal of Animal Ethics 153.

³⁷⁵ ibid 155.

³⁷⁶ ibid 156.

Curry³⁷⁷ has criticized the whole notion of environmental stewardship for lacking clear substance. Curry³⁷⁸ believes maintaining the position of humans having a divine mandate to manage and care for the resources under our control, the environment, can easily lead to inefficiency due to the natural self-centred nature of humans. Ronald Sandler³⁷⁹ also criticises the idea of being motivated to act based on some form of divine calling. He believes the world is becoming more secular and for the stewardship ethical view to be viable, there has to be a sense of relevance to the global world.³⁸⁰

2.6 African Theoretical Perspective on Climate Change and Environmental Sustainability

Apart from discussing the general schools of thought or motivational streams influencing policy makers on the governance approach taken in relation to the environment and climate change, it is worth zooming in on the position in Africa. This follows the general theme of this thesis which focuses on Nigeria, a country within the African continent. It is therefore worth examining how this developing continent generally perceives the environment in view of understanding whether or not there is a natural openness to adopting an environmental sustainability governance stance to issues like climate change. This discussion will serve as a prelude to the exploration of the different North-South State positions on climate change and environmental sustainability carried out in chapter five of this thesis.

³⁷⁷ Curry (n 302) 35.

³⁷⁸ Ibid.

 ³⁷⁹ Ronald Sandler, 'Introduction: Environmental Virtue Ethics' in Ronald Sandler and Philip Cafaro (eds),
 Environmental Virtue Ethics (Rowman and Littlefield 2005) 10.
 ³⁸⁰ ibid.

It is worth emphasizing that the African continent is made up of Fifty four (54) distinctively unique countries.³⁸¹ These countries are however analysed together here due to their largely shared: communal structured societies; religious beliefs; and the high prevalence of poverty.³⁸² This approach has been adopted by scholars like Anna Steynor and Lorena Pasquini³⁸³ who acknowledge that there may be slight differences in perceptions amongst African countries on climate change issues. They however state that the continent is usually examined as a relatively homogenous group due to shared social and economic traits including the designation of being a continent filled with developing countries.³⁸⁴

This thesis will follow this position and examine the African countries together. In examining the perception often theorized about the African continent's view of the environment and issues of climate change and environmental sustainability, two main points were discovered. The first is the continent's strong metaphysical and religious world views. The second is the dissonance amongst the rural majority and the ruling minority on the issue of climate change and environmental sustainability.

A metaphysical and religious worldview is such that actions, behaviours and perceptions are influenced by myths, belief in the supernatural and religious thinking.³⁸⁵ African communities have traditionally engaged with the environment on this metaphysical view based on influences of complex beliefs, taboos, folklore and religion.³⁸⁶ This worldview places value on everything within.³⁸⁷ The value system, in most African communities, usually comes as a result of the

³⁸¹ Negussie Siyum, 'Why Africa remains underdeveloped despite its potential? Which theory can help Africa to develop? (2018) 1(2) Open Access Biostatistics & Bioinformatics 1.

³⁸² ibid 2.

³⁸³ Anna Steynor and Lorena Pasquini, 'Informing Climate Services in Africa through Climate Change Risk Perceptions' (2019) 15(100112) Climate Services 1.

³⁸⁴ ibid 5.

³⁸⁵ Preye K. Inokoba, Adeyemi-Suenu and Johnnie Perepreghabofa, 'The African Metaphysical Worldview and its Prostrate Condition of Backwardness' (2010) 29(1) Journal of Human Ecology 28.

 ³⁸⁶ Edmond Sanganyado, Charles Teta and Busani Masiri, 'Impact of African Traditional Worldview on Climate Change Adaptation' (2018) 14(2) Integrated Environmental Assessment and Management 189.
 ³⁸⁷ Etievibo (n 374) 156.

belief that there exists some level of divine repercussion attached to how they interact with the environment.³⁸⁸ Meaning a misuse of the environment may result in repercussion from a god or another form of divinity. This way of thinking has also been referred to as fatalism.³⁸⁹

Fatalism is a perception that believes in the existence of a causal link between the divine or traditional deity and societal happenings.³⁹⁰ Such a belief has the tendency of skewing perceptions of scientific and natural occurrences, like climate change, as a divinely related occurrence. This was exemplified in a research carried out by Albert Abegunde³⁹¹ where he examined three communities in Osun State, Nigeria in 2017, and discovered that Eighty-One percent (81%) of rural farmers held a strong belief that the effects of climate change were, in one form of the other, punishments from the gods.

Another study, carried out in southern Africa, discovered some rural communities sharing a similar belief in which they stated the effects of climate change is due to the felling of sacred trees and the destruction of holy forests, which have angered the gods.³⁹² The problem with this view is the potential for there to be an indifference to climate change governance due to the perception of it being a divinely orchestrated event. Steynor and Pasquini³⁹³ agree with this view and state that such a perception, if not properly understood, can lead to inefficient climate change governance.

³⁸⁸ George J. S. Dei, 'Sustainable Development in the African Context: revisiting some theoretical and methodological issues' (1993) 18(2) Africa Development 102.

³⁸⁹ Sanganyado, Teta and Masiri (n 386) 191.

³⁹⁰ Steynor and Pasquini (n 383) 7.

³⁹¹ Albert Ayorinde Abegunde, 'Local Communities' Belief in Climate Change in a Rural Region of Sub-Saharan Africa' (2017) 19 Environment, Development and Sustainability 1489.

 ³⁹² Bright Chisadza, Michael J. Tumbare et al, 'Linkages between local knowledge drought forecasting indicators and scientific drought forecasting parameters in the Limpopo River Basin in Southern Africa' (2015)
 12 International Journal of Disaster Risk Reduction 226.

³⁹³ Steynor and Pasquini (n 383) 7.

Scholars like Sangyando, Teta and Masiri³⁹⁴ are of the opinion that understanding the metaphysical element of African community relations with the environment is critical in ensuring increased climate change governance. The argument can therefore be made that an appreciation for the peculiarities of these African communities might enable the adoption of effective environmental sustainability steps to climate change governance which are tailored to the different communities based on their underlying beliefs.

Second to the metaphysical worldview of the African communities, the dissonance between the poor majority and the ruling minority also plays a role in how climate change is perceived and the openness to adopting an environmental sustainability approach to governance. One of the main commentators on this point is George Dei³⁹⁵. He is of the opinion that majority of the African population, who mainly stay in rural communities and are poor, might be apprehensive of the concept of sustainable development.³⁹⁶

He believes that these communities did not start off wanting to act in an unsustainable manner but a desperation for resources led to the scavenging of the environment.³⁹⁷ This position can be aligned with upon understanding that most of the African communities had historically practiced a form of anthropocentric egalitarianism³⁹⁸ where the environment was interacted with as a communal resource on the guidance of tradition, religion and culture. There, however, began a departing from this entrenched mode of living when the minority led State and, what Dei³⁹⁹ refers to as, their domestic and foreign accomplices (powerful local elites and multinational corporations), began to appropriate resources from these rural communities.

³⁹⁴ Sanganyado, Teta and Masiri (n 386) 191.

³⁹⁵ Dei (n 388) 97.

³⁹⁶ ibid 99.

³⁹⁷ ibid 100.

³⁹⁸ Etieyibo (n 374) 146.

³⁹⁹ Dei (n 388) 100.

This wealth appropriation took the form of land grabbing, exploration of resources and felling of trees.⁴⁰⁰ These actions, which are supposedly done in view of attaining development, most times do not have any direct benefit for the communities. The communities are then left with limited wealth sources. This lack of wealth and the widespread poverty inhibits the community from being able to invest in themselves and possibly take actions to combat deteriorating environmental conditions like: desertification; poor water quantity and quality; deforestation; loss of biological diversity; and depletion of natural resources.⁴⁰¹

The case can therefore be made that most poor African communities have little to no motivation to adopt or adhere to an environmental sustainability approach to climate change governance due to their subpar economic, social and environmental status. Using the issue of deforestation as an example, these communities may have had a history of sustainable foresting entrenched in their metaphysical views.⁴⁰² The limited exposure to resources has forced some of these communities to resort to deforestation and an aggressive use of the environment as a means of wealth creation.

This is why scholars like Suberu and Ajala⁴⁰³ believe that for these types of communities to buy into and potentially adopt an environmental sustainability approach to governance, there has to be some form of resource ownership given to the communities by the State. Dei⁴⁰⁴ agrees with this and states that any action carried by the government or foreign institutions that clamours for sustainable development without actually providing local wealth will most likely be met with scepticism.

⁴⁰⁰ Albert Ahenkan and Alex Osei-Kojo, 'Achieving Sustainable Development in Africa: progress, challenges and prospects' (2014) 3(1) International Journal of Development and Sustainability 166.

⁴⁰¹ Dei (n 388) 100.

⁴⁰² ibid 101.

⁴⁰³ O. J. Suberu, O. A. Ajala, et al, 'Diversification of the Nigerian Economy towards a Sustainable Growth and Economic Development' (2015) 3(2) International Journal of Economics, Finance and Management Sciences 107.

⁴⁰⁴ Dei (n 388) 103.

It may therefore be concluded that there is a need for policy makers and scholars to take into cognisance the perspectives and positions of African communities when proposing legal climate change initiatives. The result of which is a deeper understanding of the perceived and sometimes lax attitudes taken by these communities in climate change governance related issues. This position will influence the eventual recommendations proposed for developing countries like Nigeria, in chapter seven of this thesis.

2.7 Conclusion

Climate change is fast becoming one of the most contentious issues in the world. It was discovered in this chapter that, apart from the fear that climate change governance might be too onerous, the scientific understanding of the climate change problem is not widespread. This chapter sought to address the lack of scientific understanding by showcasing how the climate system works and how anthropocentric activities have played a part in speeding up the changing climate process.

Upon establishing how human-led activities have contributed in increasing the level of greenhouse gases in the atmosphere and the resultant negative global climate change effects, this thesis proposes the adoption of an environmental sustainability approach to governance. The environmental sustainability principle was examined here as one of the three pillars of sustainable development wherein actions and policies are carried out in line with prioritizing environmental protection. This is due to the need for urgent governance of the global problem of climate change.

It was however discovered that the manner in which policy makers view the environment, plays a huge role in how receptive they are to adopting an environmental sustainability approach to climate change governance. Three main schools of thought: anthropocentric; ecocentric; and environmental stewardship, were examined in relation to how the environment is viewed. Anthropocentric, as a school of thought, views humans as the primal focus of governance and the environment mainly as a resource centre.

The ecocentric school of thought places the ultimate value on the environment with humans existing as part of the environment. The environmental stewardship school of thought holds that human beings are divinely appointed to be the stewards of the environment. The anthropocentric school of thought is widely the ruling school of thought through which humans have interacted with the environment. This school of thought has been heavily criticised for relegating the need to protect the environment which has led to different environmental issues.

The African situation is a bit unique wherein historically the interaction with the environment has been from a standpoint mirroring some form of environmental stewardship. The more recent position shows majority of the leaders in the continent gravitating towards an anthropocentric position which prioritizes socio-economic development while acknowledging the need to protect the environment.

The African position coincides with the growing global interpretation of the anthropocentric position wherein the environment is given more intrinsic value in line with attaining human self-preservation. There is however still a hesitation amongst the African leaders and the developing world, to prioritize an environmental sustainability stance to governance.

The wider global community is, however, increasingly gravitating towards adopting a hardline environmental sustainability approach in view of the growing scientific findings on the problem of climate change in view of attaining human self-preservation. The scientific findings are increasingly painting a dire picture while highlighting how anthropocentric actions are speeding up the rate of climate change. The next chapter aims to build on this by examining how climate change has been governed so far.
CHAPTER 3 – INTERNATIONAL GOVERNANCE ON CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY

3.1 Introduction

The previous chapter sought to justify the advocacy of an environmental sustainability approach to climate change governance by showcasing the growing scientific understanding on the global problem. Even though majority of the scientific findings link the culpability of the climate change problem to humans and human related activities, the previous chapter showed that there still exists some scientist and policy makers who contest the seriousness of the climate change problem.⁴⁰⁵ This thesis, in view of avoiding the technicalities involved with the scientific modelling and calculations, aligns with the majority of scientific findings which paint climate change as a serious problem with humans being the biggest instigators.⁴⁰⁶

The seriousness of the climate change problem has led to the global call and instituting of governance initiatives with an increased focus on environmental protection.⁴⁰⁷ There is, however, a lack of global unity towards adopting an environmental sustainability approach to climate change governance. The disunity in how climate change and the wider environment should be handled was linked to the variations in the schools of thought States align to.

Amongst the plethora of schools of thought relating to how humans view and relate to their wider environment, the previous chapter settled on discussing: anthropocentrism; ecocentrism;

⁴⁰⁵ Michaels and Knappenberger (n 91) 32.

⁴⁰⁶ Grossman (n 130) 224.

⁴⁰⁷ Brian N. Winchester, 'Emerging Global Environmental Governance' (2009) 16(1) Indiana Journal of Global Legal Studies, 7.

and environmental stewardship.⁴⁰⁸ The anthropocentric school of thought was discovered to be the motivation stream most aligned with. It takes the stance that the human race is supreme and the environment exists solely as a resource centre for human use.⁴⁰⁹ This, historically predominant view, has been criticised for leading to the different global environmental problems we are facing today.⁴¹⁰

Human history has tended towards focusing more on utilising the environment as a resource source with little priority given to protecting the environment. The negative effects of giving little to no care to the environment has led to various environmental issues like climate change. Such global issues have inspired a growing change in how the anthropocentric school of thought views the need for the protection of the environment due to human-preservation.

Human Self-preservation, as a reason to protect the environment, has led to a number of global initiatives to govern climate change which have adopted an environmental sustainability approach to governance. Despite this growing awareness of the need to take a hard-line approach to climate change governance on the basis of human preservation, some States are still holding on to the old version of anthropocentrism.

Most African leaders, for example, are seen to understand the need to govern the environment but are hesitant to take on the responsibility themselves. This is out of the fear that prioritizing environmental protection may negatively impact their goal of attaining economic growth. While some other countries, like the USA, are hesitant to partake in climate change governance due to the fear of a higher obligation being placed on them.⁴¹¹ They fear that due to historical

⁴⁰⁸ See section 2.5 above for more.

⁴⁰⁹ Callicott (n 312) 299.

⁴¹⁰ Purser, Park and Monuori (n 353) 1068.

⁴¹¹ Michele M. Betsill, 'International Climate Change Policy: Toward the Multilevel Governance of Global Warming' in Regina S. Axelrod, Stacy D. VanDeveer and David Leonard Downie (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011) 111.

emissions, a higher obligation to combat climate change, may be too onerous on their economy.⁴¹² This shows a non-uniformity, amongst States, on the governance approach to be adopted in combating climate change.

This chapter aims to examine climate change governance and the adoption of an environmental sustainability approach. This will first involve understanding how the environment and climate change have been governed globally. This will lead to an examination of the status of the global governance on climate change as it relates to environmental sustainability under the global umbrella of environmental governance.

This will involve a discussion to see if the problem of climate change is potentially overshadowing other global environmental problems. The chapter will conclude with a discussion of the most effective level of governance to deal with the climate change problem. This will involve understanding if an environmental sustainability approach to climate change governance is best attained through international cooperation or through national legal action.

3.2 Governance

3.2.1 Governance: International Environmental Law

In understanding how climate change has been governed globally, a good starting point is first understanding how global issues relating to the environment have been governed. The term governance is widely seen as a concept which relates to the coordination of people or groups.⁴¹³ It refers to the political and legal regimes used to shape the behaviour of a group of people and

⁴¹² ibid.

⁴¹³ Andrew Heywood, *Politics* (3rd edn, Palgrave Macmillan 2007) 6.

the institutions utilized to achieve this.⁴¹⁴ The term governance is much wider than the term government. Government can broadly be defined as a formal institution characterized by the ability to make and enforce decisions.⁴¹⁵ The usual example of a government is a State comprising of executive, legislative and judicial functions. It can therefore be argued that government is an institution involved in the actualization of governance.⁴¹⁶

Governance: be it locally, nationally or globally; covers both formal and informal arrangements and actions by governments, government organisations, non- governmental organisations and individuals working together to ensure a goal is achieved. Following this logic, international environmental law governance relates to how individuals, groups, public, private, State and non-State actors all coexist in the formulation, implementation and possible enforcement of international environmental law treaties, rules and agreements.

It involves a look at how the various actors interact to develop the international regimes setup to achieve the various international environmental law goals.⁴¹⁷ Melissa Dorn⁴¹⁸ defines international environmental governance as an "*attempt by an international network of organizations to moderate and minimize the damage done to the environment by human societies*".⁴¹⁹ This definition can arguably be said to reiterate the new human preservative stance to global environmental governance. It involves environmental reformative actions

⁴¹⁴ Achim Steiner, Lee A. Kimball and John Scanlon, 'Global Governance for the Environment and the role of Multilateral Environmental Agreements in Conservation' (2003) 37(2) Oryx, 227.

⁴¹⁵ Heywood (n 413) 26.

⁴¹⁶ ibid 6.

⁴¹⁷ Marvin S. Soroos, 'Global Institutions and the Environment: An Evolutionary Perspective' in Regina S. Axelrod, Stacy D. VanDeveer and David Leonard Downie (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011) 24.

 ⁴¹⁸ Melissa Dorn, 'Summary of the Conference on Global Environmental Governance' (2007) 19(2) Georgetown International Environmental Law Review 303.
⁴¹⁹ ibid 305.

geared towards achieving new level of rules, and implementation of those rules, by political and non-State actors.⁴²⁰

Compared to other more established areas of law, international environmental law is relatively new. International Environmental law, similar to fields dealing with energy and natural resource management, covers and impacts a wide range of social issues prompting a scholar like Neil Gunningham⁴²¹ to classify such fields under a new dimension of governance. He states that this new form of governance is characterized by: devolved decision making; increased participatory dialogue and deliberation; increased inclusiveness; a shift towards heterarchy from the traditional hierarchical system of governance; more transparency; more flexibility rather than strict uniformity; and finally institutions built on consensus practices rather than a stringent centralized system.⁴²²

Even though it may be argued that the characteristics proffered by Gunningham might appear broad, growing global environment issues and social demands have ensured that global environmental governance is tilting towards mirroring such characteristics. It is therefore not surprising to know that there has been an increase in global environmental regimes requiring more synergy and participation from various actors to combat the ever expanding range of environmental issues.⁴²³ Prior to this, nations tended to be individualistic in how they handled environmental problems.

This individualistic position of States has toned down due to multifaceted environmental issues with grave transnational impact such as climate change, ozone depletion, plastic pollution and

⁴²⁰ Ronald J. Bettauer, 'International Environmental Law-Making and the International Court of Justice' (2011) 105 American Society of International Law 64.

⁴²¹ Neil Gunningham, 'The New Collaborative Environmental Governance: The Localization of Regulation' (2009) 36(1) Journal of Law and Society 145.

⁴²² ibid 146.

⁴²³ Winchester (n 407) 7.

loss of biodiversity. There has been increased cooperation and a more inclusive move towards addressing environmental issues on a global scale.⁴²⁴ The increased cooperation has been evidenced by an increase in the number and frequency of meetings between States and other global actors to formulate and implement global governance initiatives specifically aimed at tackling the various global environmental problems.⁴²⁵ One of such notable meetings was a 1972 conference held in Sweden.

This conference was convened by the UN and titled the 'UN Conference on the Human Environment' (sometimes referred to as the Stockholm conference). The conference has been praised for playing a symbolic role in the development of global cooperative efforts to govern the environment.⁴²⁶ Unlike previously held conferences, this particular conference was the first to globalize environmental concerns that had historically been seen as only national concerns.⁴²⁷ Even though there were no binding treaties or agreements adopted at the Stockholm conference, the influence of the conference orchestrated the setting up of the United Nations Environment Programme (UNEP).⁴²⁸

UNEP was set up as a permanent wing of the UN saddled with the responsibility of observing global environmental happenings and moderating subsequent international conferences.⁴²⁹ UNEP has been instrumental in convening notable conferences that have led to the signing of important international agreements. One of such agreements was the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (popularly referred to as the Montreal Protocol).⁴³⁰

⁴²⁴ Cameron Holley, 'Environmental Regulation and Governance' in Peter Drahos (eds), *Regulatory Theory: Foundations and Applications* (ANU Press 2017) 741.

⁴²⁵ Winchester (n 407) 9.

⁴²⁶ Axelrod, Stacy and Vig (n 75) 1.

⁴²⁷ Winchester (n 407) 10.

⁴²⁸ Axelrod, Stacy and Vig (n 75) 1.

⁴²⁹ ibid.

⁴³⁰ Richard Elliot Benedick, *Ozone Diplomacy: New Directions in Safeguarding the Planet* (2nd edn, HUP 1998) 129.

UNEP also played a significant role in convening the 1992 UN Conference on Environment and Development (UNCED), also known as the Earth Summit, which was held in Rio de Janeiro, Brazil. The conference was noted for being very inclusive in that it consisted of: 114 heads of State; 178 delegates from different countries; and other different delegates representing international non-governmental organizations (NGOs), farmers, businesses and indigenous groups.⁴³¹

This prompted Hilary French⁴³² of the Worldwatch Institute, an environmental and sustainable development NGO, to classify the Earth Summit as a transformation point in international environmental history because it ushered in the inclusion of individual and NGO participation in conversations and agreements regarding the environment. Other conferences, treaties and agreements have been developed and convened either to help govern a specific global environmental problem or for general global environmental protection.

Similarly, there has been increasing diverse participation from different groups, State and non-State actors, to enable governance of international environmental law. States can be said to be an almost constant fixture when it comes to international governance.⁴³³ States play a pivotal role in international environmental law in not only implementing agreements and treaties, but also in most cases, initiating steps needed to ensure global protection of the environment.⁴³⁴

Apart from States, there also exists some major global institutions who play important roles when it comes to governance in international environmental law. These institutions comprise of States and non-State actors. The UN, the foremost global international organization, is a

 ⁴³¹ Hilary French, 'Reshaping Global Governance' in Linda Starke (eds), *State of the World 2002: A Worldwatch Institute Report on Progress Toward a Sustainable Society* (W. W. Norton & Company 2002) 189.
⁴³² ibid 188.

⁴³³ Sands, Peel et al (n 197) 53.

⁴³⁴ ibid 53-54.

State actor who is seen as a very important player in the governance of global environmental law. The UN is comprised of 193 sovereign States as current members.⁴³⁵

The UN is made up of specialized agencies, apart from the UNDP, which have been created to handle and monitor a broad range of environmental issues. One of such agencies is the IPCC. The IPCC was formed by the UNEP and the World Meteorological Organization (WMO) in 1988 to study the development of climate change and its impacts.⁴³⁶ Some other UN bodies that play an important role in international environmental law governance, however slight, are the UN Development Programme (UNDP) and the UN Economic and Social Council (ECOSOC).⁴³⁷

Apart from the UN, the World Bank is another global institution that has taken some positive steps to aid countries implement international environmental rules. The World Bank is a global economic institution comprising of 189 member States. The World Bank, amongst many of its other stated goals, aims to ensure the securing of sustainable solutions globally.⁴³⁸ There has also been a gradual growing influence of non-State inspired organizations. This is comprised of private individuals, private corporations and NGOs.⁴³⁹

John McCormick⁴⁴⁰ attributes the rise and development of these non-State organizations to the increased consciousness of private individuals to the growing environmental problems facing our world in the face of little political action. He is of the view that these organizations are fuelled and motivated to ensure increased consciousness and publicity of the various global

⁴³⁵ ibid 53.

⁴³⁶ Soroos (n 417) 31.

⁴³⁷ Sands, Peel et al (n 197) 59-82.

⁴³⁸ Soroos (n 417) 31.

⁴³⁹ Sands, Peel et al (n 197) 89.

⁴⁴⁰ John McCormick, 'The Role of Environmental NGOs in International Regimes' in Regina S. Axelrod, Stacy D. VanDeveer and David Leonard Downie (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011) 92.

environmental problems.⁴⁴¹ He believes they also play an important role by applying pressure on State actors to act and possibly take a more environmental sustainability stance to global environmental governance.⁴⁴² Evidence of this is seen with activities of NGOs like Greenpeace International who, through environmental activism, put pressure on governments and State inspired organizations to observe, create and act in an environmentally sustainable way.⁴⁴³

Media organizations are also increasingly becoming platforms used to govern international environmental law. The media helps to beam into public awareness environmental issues affecting the world.⁴⁴⁴ The significance of the media is especially true for developing countries, like Nigeria, where little focus is placed on environmental education.⁴⁴⁵ The media has become the main outlet through which every day people are educated about environmental problems and policies.⁴⁴⁶

It can therefore be concluded that international environmental governance is transformatively changing from a formal State-centred arrangement to a more inclusive and expansive arrangement. This is largely due to the growing nature of environmental problems, like climate change, which transcend boundaries.⁴⁴⁷ This has prompted Edith Weiss⁴⁴⁸ to opine that the world and the problems within it, are becoming more kaleidoscopic. She explains that global problems like: climate change; cyber-attacks; and financial crises, affects every human being in the world forcing international law to evolve and become more inclusive.⁴⁴⁹

⁴⁴⁹ ibid.

⁴⁴¹ ibid.

⁴⁴² ibid.

⁴⁴³ Michael Roose, 'Greenpeace, Social Media and the Possibility of Global Deliberation on the Environment' (2012) 19(1) Indiana Journal of Global Legal Studies 347.

⁴⁴⁴ Sands, Peel et al (n 197) 95.

⁴⁴⁵ Foluke Ogunleye, 'Environmental Sustainability in Nigeria: The "Awareness" Imperative' (2004) 32 (1/2) African Issues 41.

⁴⁴⁶ ibid 42.

⁴⁴⁷ Sands, Peel et al (n 197) 96.

⁴⁴⁸ Edith Brown Weiss, 'International Law in a Kaleidoscopic World' (2011) 1(1) Asian Journal of International Law 21.

The evolution of international law, according to Weiss⁴⁵⁰, which is also applicable to international environmental law, is characterized by: a bottom-up empowerment; globalization and integration; fragmentation; and decentralization. This multi-layered system⁴⁵¹ is also very advantageous to developing countries that might not have a strong central government to govern and sensitize the public on growing environmental issues. Increased globalization has allowed these developing countries access to increased governance support and awareness of environmental issues like climate change.

3.2.2 Governance: Climate Change

In line with the view of Edith Weiss above, climate change falls under the global problems that require a kaleidoscopic outlook to governance. This is due to the significant challenges climate change poses to the global community.⁴⁵² The changing climate is already affecting human existence socially, politically, economically and in how the physical environment is structured.⁴⁵³ These effects are not experienced unilaterally across the world. The multifaceted nature of climate change and the fact that it is a 'delayed harm', makes it a hard problem to govern.⁴⁵⁴

The problem with governing climate change is further compounded by the fact that there exists disparities in the capacity of States. This affects their intensity levels and willingness to adopt an environmental sustainability approach needed to govern climate change.⁴⁵⁵ This disparity amongst States has, however, not deterred the global community from seeking out and instituting governance steps which increasingly mirror an environmental sustainability

⁴⁵⁰ ibid 22.

⁴⁵¹ Sands, Peel et al (n 197) 96.

⁴⁵² Betsill (n 411) 111.

⁴⁵³ Carolyn Deere-Birkbeck, 'Global Governance in the context of Climate Change: the Challenges of Increasingly Complex Risk Parameters' (2009) 85(6) International Affairs 1173.

⁴⁵⁴ ibid.

⁴⁵⁵ Mukul Sanwal, 'Sustainable Development Perspective of Climate Change' (2008) 43(15) Economic and Political Weekly 49.

approach to governing climate change.⁴⁵⁶ At the early stage of the global community taking this stance to governance, State actors were viewed as the main instruments or players by which governance could be formulated and attained.⁴⁵⁷ However with the growing consciousness of the seriousness of the climate change problem, non-State actors are becoming increasingly influential in the governance of climate change.⁴⁵⁸

NGOs, the media and private persons are increasingly participating in global climate change discussions and negotiations. They also play a part in applying pressure on States to adopt a more hard-line approach in climate change governance.⁴⁵⁹ The growing influence of these non-State actors does not however lessen the primal status of States as the main deciders of how climate change will be governed.⁴⁶⁰ The position of States, as the main implementation agents, has however affected the level of global climate change governance success, due to a lack of uniformity amongst States as to the adoption of the environmental sustainability governance approach.

Scholars like Mukul Sanwal⁴⁶¹ believe that there needs to be a change in how climate change is being governed for there to be the successful reduction of the global level of greenhouse gases in the atmosphere. He is of the opinion that the peculiarities of the primary implementation agents should be focused on.⁴⁶² He believes any form of progress will be delimited due to a high number of poor countries who are ill equipped to make any meaningful contribution to combating climate change and ensuring reduced greenhouse gas emissions.⁴⁶³

⁴⁵⁶ Deere-Birkbeck (n 453) 1173.

⁴⁵⁷ Issachar Rosen-Zvi, 'Climate Change Governance: Mapping the Terrain' (2011) 5(2) Carbon and Climate Law Review 234.

⁴⁵⁸ ibid.

⁴⁵⁹ Jean Galbraith, 'From Treaties to International Commitments: The Changing Landscape of Foreign Relations Law' (2017) 84(4) The University of Chicago Law Review 1675.

⁴⁶⁰ ibid 1731.

⁴⁶¹ Sanwal (n 455) 49.

⁴⁶² ibid.

⁴⁶³ ibid 53.

Carolyn Deere-Birkbeck⁴⁶⁴, to some extent, agrees with this by stating that climate change is too grieve a problem to be approached with a stiff form of governance. She calls for a more robust and diverse approach to be adopted in climate change governance which could involve increased information sharing and coordination amongst States.⁴⁶⁵

The discussions relating to the best way of governing climate change is a never ending one due to the peculiarity of the problem. These governance discussions involve understanding the place of climate change, a global environmental problem, in international environmental law. Understanding the best level of government: either globally or nationally; best suited for governing the climate change problem, is another governance issue. This thesis aims to highlight these discussions in the following sections.

3.3 Climate Change Governance and Environmental Sustainability under International Environmental Law

Looking through the lens of human preservation, environmental governance, at any level, seeks to ensure the environment is protected and remains viable for present and future generations. The myriad of environmental problems that potentially threaten the attainment of human preservation or generational sustainability, has led to a range of different global environmental governance initiatives. The most publicized of these global environmental issues is the problem of climate change.

Arguably, the global publicity of the climate change problem and the little corresponding action, can lead to questioning whether or not climate change is best suited to be governed

120 | Page

⁴⁶⁴ Deere-Birkbeck (n 453) 1189.

⁴⁶⁵ ibid 1194.

under international environmental law. The question could also be posed another way wherein it may be asked if the publicity given to the climate change problem is potentially serving as a distraction from proper governance being given to other global environmental problems. The way policy makers view climate change in relation to international environmental law, can potentially affect the approach they take to govern the problem. Traditionally, climate change has been viewed singularly as another environmental problem falling under the field of international environmental law.⁴⁶⁶

Some authors have even gone as far as boxing climate change as an extension of global air pollution.⁴⁶⁷ The danger with this stiff narrative is a recycling of methods and ideas applied generally to international environmental law problems which may prove ineffective in dealing with the issue of climate change. This is due to broad and complex nature of climate change which affects all sectors of society. It therefore stands to reason that climate change may not be effectively dealt with or governed through the sole adoption of traditional international environmental law channels.⁴⁶⁸ A more holistic approach might be needed to deal with the problem.

The following subsections aim to expand on the relationship between climate change and environmental sustainability in relation to international environmental law. This will be done by looking at whether the threat of climate change is crowding out other environmental problems within international environmental law as opposed to crowding in. This will be followed by a discussion on the distinction of climate change from other international environmental problems under the heading of climate exceptionalism. The purpose of which is to highlight the distinctiveness of climate change in relation to other environmental issues in

⁴⁶⁶ Timo Koivurova, Introduction to International Environmental Law (Routledge 2014) 200.

⁴⁶⁷ Susan Wolf and Neil Stanley, Wolf and Stanley on Environmental Law (6th edn, Routledge 2014) 375.

⁴⁶⁸ Cinnamon Carlarne, 'Delinking International Environmental Law and Climate Change' (2014) 4(1). Michigan Journal of Environmental and Administrative Law 4.

line with advocating a more robust approach to governing climate change. This discussion is aimed towards universal application but mindful of the financial situation of developing countries, like Nigeria, in their attempt to combat climate change.

3.3.1 Crowding Out and Crowding In

When discussing the possibility of climate change crowding in or crowding out international environmental law, it is important to not overlook the importance of the development of international environmental law as a field of international law. Prior to the relatively new publicity attached to the climate change problem, international environmental law had already been developed to address the different growing threats to the global environmental.⁴⁶⁹ International environmental law emerged as a field of international law in response to the alien environmental issues affecting the world.⁴⁷⁰

The field is consistently evolving with increased participation from both State actors and non-State actors in line with governing the growing range of global environmental issues. Despite the perceived growth and development of international environmental law, there still exists some questions around the effectiveness of the field in light of multifaceted environmental issues like climate change. This view was echoed by Daniel Bodansky⁴⁷¹ who is of the opinion that international environmental law exists almost like a moralistic obligation which does not really affect the way States behave.

⁴⁶⁹ Sands, Peel et al (n 197) 3-5.

⁴⁷⁰ Harvard Law Review Association, 'Developments in the Law: International Environmental Law' (1991) 104(7) Harvard Law Review 1489.

⁴⁷¹ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press 2010) 15.

Joel Eisen⁴⁷² takes this criticism to another level by describing international environmental law as "*a largely sanctionless creation of sound and fury, signifying nothing*"⁴⁷³. The criticism levelled against international environmental law, which is also a general flaw attributed to public international law, is tilted strongly towards its implementation mechanism and not what it stands for.⁴⁷⁴ The questions surrounding the effectiveness of international environmental law predates the increased awareness of the "*super wicked problem*"⁴⁷⁵ known as climate change. The governance of climate change and the perceived lack of uniform approach amongst States, has further brought these questions into focus.

The governance questions surrounding the enforceability and implementation of global environmental issues has not been aided by the fact that international environmental law is tilting towards becoming synonymously known with climate change. Chris Hilson⁴⁷⁶ refers to this as the *"crowding out"*⁴⁷⁷ of international environmental law by the problem of climate change. He argues that there is an increasing domination of international environmental law with the issue of climate change.

Cinnamon Caralen⁴⁷⁹ agrees with this notion and believes other environmental issues, ranging from: pollution; habitat destruction; loss of biodiversity; to name a few, are becoming increasingly overshadowed by the problem of climate change. Aligning with this view makes it easier to see why some scholars may argue that the crowding out of international

⁴⁷² Joel B. Eisen, 'From Stockholm to Kyoto and Back to the United States: International Environmental Law's Effect on Domestic Law' (1999) 32 University of Richmond Law Review 1435.

⁴⁷³ ibid 1438-1439.

⁴⁷⁴ Harvard Law Revie Association (n 470) 1498.

⁴⁷⁵ Chris Hilson, 'It's All About Climate Change Stupid! Exploring the Relationship Between Environmental Law and Climate Law' (2013) 25(3) Journal of Environmental Law 363.

⁴⁷⁶ ibid 359.

⁴⁷⁷ ibid 360.

⁴⁷⁸ ibid.

⁴⁷⁹ Carlarne (n 468) 10.

environmental law by the problem of climate change is an elaborate way of distracting the global focus from other environmental issues that need to be addressed.⁴⁸⁰

This position is further heightened by the somewhat snail-like approach to global climate change governance which has served as ammunition to the group of people who believe that climate change is not as serious as it is portrayed and is only serving as a distractor from other global environmental problems.⁴⁸¹ However, despite the truth in the dominance of climate change over other environmental problems, a benefit to the other global environmental issues could possibly be attained if international environmental law taps into the publicity and focus being enjoyed by climate change. This possible 'co-benefit' is what Hilson refers to as the "*crowding in*"⁴⁸² thesis.

Crowding in, as opposed to crowding out, views that the publicity and the initiatives on climate change could also be beneficial in dealing with other global environmental issues. For example, laws can be passed which aim to reduce the level of carbon dioxide (CO₂) emissions on the roads by charging high CO₂ emitting cars a congestion - like charge.⁴⁸³ By taking such a legal action in combating climate change, a myriad of environmental issues like air pollution and ozone layer depletion, stand to benefit.

Such a stance also promotes a well-rounded environmental sustainability approach in line with attaining long term human preservation and sustainability.⁴⁸⁴ The grandeur status of climate change has even led some scholars to postulate that a totally different field, called climate

⁴⁸⁰ Hilson (n 475) 361.

⁴⁸¹ See section 2.2 above on the different perspectives on the climate change problem.

⁴⁸² Hilson (n 475) 361.

⁴⁸³ This example was inspired by the Congestion Charge introduced in Central London in 2003 to reduce the high traffic flow in busy areas of London and, to a lesser extent, reduce air pollution in the City. The charge has however been criticised for exempting a lot of diesel cars causing an increase in the amount of nitrogen oxide (NO2) being emitted. See Colin P. Green, John S. Heywood and Maria Navarro, 'Did the London Congestion Charge Reduce Pollution?' (2018) Lancaster University Management School, Economic Working Paper Series 2018/007.

⁴⁸⁴ Hilson (n 475) 361.

change law, could be developed separate from international environmental law which could be beneficial in governing climate change and freeing up space to combat other global environmental problems.⁴⁸⁵

Further to this, there exists two possible justifications for creating a separate legal field for climate change. The first justification relates to the crowding out of international environmental law by the problem of climate change. The argument here proposes that by creating a new field of climate change law, other global environmental problems would potentially enjoy an increase in focus and governance under international environmental law. This argument follows the assumption that international environmental law has the enormous task of dealing with a plethora of global environmental issues with different intensities.

The enormity of this task is captured by Tseming Yang and Robert Percival⁴⁸⁶ who both believe international environmental law requires the input of a range of actors: international; transnational; national and non-State actors, to ensure environmental protection is attained while also promoting sustainable management of natural resources.⁴⁸⁷ International environmental law has also been required to evolve due to a range of environmental issues which have a reverberating effect on other aspects of life. Some of these overlapping issues range from energy⁴⁸⁸, human rights, health⁴⁸⁹ and the economy⁴⁹⁰.

⁴⁸⁵ See scholars like: Jacqueline Peel, 'Climate Change Law: The Emergence of a New Legal Discipline' (2008)32(3) Melbourne University Law Review 924; and Hilson (n 475) 363.

⁴⁸⁶ Tseming Yang and Robert V. Percival, 'The Emergence of Global Environmental Law' (2009) 36 Ecology Law Quarterly 615.

⁴⁸⁷ ibid 616-617.

⁴⁸⁸ Christine Batruch, 'Climate Change and Sustainability in the Energy Sector' (2017) 10(5) Journal of World Energy and Business 445.

⁴⁸⁹ Michael Depledge and Cinnamon Carlarne, 'Sick of the Weather: Climate Change, Human Health and International Law' (2007) 9 Environment Law Review 231.

⁴⁹⁰ Shalanda H. Baker, 'Climate Change and International Economic Law' (2016) 43(1) Ecology Law Quarterly 53.

This just serves to reiterate the fact that international environmental law could figuratively be said to be a subject with 'a lot on its plate'. It can be added that having a major 'distraction' like climate change might inevitably jeopardize any progress the field may have in dealing with other global environmental issues. Creating a separate field of climate change law may aid the avoidance of such distractions while also enabling more focus to be given to other environmental issues, irrespective of how unpublicized they might be.

The second justification, proposed by this thesis, for creating a separate field of climate change law lies in the multifaceted reach of the climate change problem. Climate change has the potential to completely change the world as we know it but the effects and impacts are not felt in the same way like most other global environmental problems. This is why Eric Biber⁴⁹¹ refers to climate change as a 'delayed harm' due to the fact that the effects are experienced in different levels by all the nations of the world, with continuous warming of the planet and the rise in sea level potentially lasting for centuries.⁴⁹²

An adoption of a separate climate change law area within the field of law would ensure all the needed areas of law required to combat the ever growing threat of climate change will be adequately harmonized. Areas of law such as: energy law⁴⁹³; human rights law⁴⁹⁴; economic law; health law; land law; tax law; and especially environmental law, would all be utilized in the governance of climate change. Apart from the legal fields, proper governance of climate change would require pulling ideas from different experts across disciplines such as: natural sciences; social sciences; business; and humanities.⁴⁹⁵

⁴⁹¹ Biber (n 333) 1301.

⁴⁹² ibid 1301-1305.

⁴⁹³ Batruch (n 488) 444.

⁴⁹⁴ Elizabeth Ferris and Jonas Bergmann, 'Soft Law, Migration and Climate Change Governance' (2017) 8(1) Journal of Human Rights and the Environment 6.

⁴⁹⁵ Carlarne (n 468) 42.

The adoption of a different legal field for climate change, based on the two justifications earlier discussed, stands to not only benefit the governance of climate change but also increase the efficient governance of global environmental issues under international environmental law.

3.3.2 Climate Exceptionalism

Apart from understanding the relationship between climate change governance and international environmental law from the crowding in or crowding out perspective, another perspective worth looking at is called climate exceptionalism. The word first gained prominence in the seminal US Supreme Court case of *Massachusetts, et al v. Environmental Protection Agency, et al (Massachusetts v. EPA).*⁴⁹⁶ The case centred on a suit instituted by several states, local governments and environmental organizations in the US against the Environmental Protection Agency (EPA) to compel the federal agency to recognize and regulate carbon dioxide and other greenhouse gases from new motor vehicles as pollutants.⁴⁹⁷

Lisa Heinzerling⁴⁹⁸, who represented the petitioners in the case, coined the term 'climate exceptionalism' in one of her arguments to the court. She stated that the threat climate change poses to the human population far exceeds those experienced in the past and should not be addressed as an air pollutant.⁴⁹⁹ This argument was rejected by the US Supreme Court even though they went on to rule in favour of the petitioners. The Court ruled that the greenhouse gases, connected to the issue of climate change, should be viewed as pollutants and therefore should be regulated by the EPA.⁵⁰⁰

⁴⁹⁶ Massachusetts, et al v. Environmental Protection Agency, et al (2007) 549 U.S. 497.

 ⁴⁹⁷ Lisa Heinzerling, 'The Role of Science in Massachusetts v. EPA' (2008) 58 Emory Law Journal 411.
⁴⁹⁸ ibid.

⁴⁹⁹ ibid 416.

⁵⁰⁰ Massachusetts v. EPA (n 496) 528-529.

Even though the US Supreme Court rejected the climate exceptionalism argument, the argument still persists. This is because a growing number of scholars have realized and stated gapping differences between climate change and pollution, and the inappropriateness of classifying the former under the latter.

John Nagle⁵⁰¹ succinctly captures what climate exceptionalism is all about by stating that "*the problem presented by climate change is different from the air pollution problems that we have addressed in the past*"⁵⁰². He believes a major differences between pollution and climate change is the fact that pollution, in most cases, will usually have a baseline wherein the substance complained about becomes a source of contamination.⁵⁰³

Climate change on the other hand does not have a baseline for naturally occurring greenhouse gases. This is especially true when looking at the fact that greenhouse gases, like CO₂, have not only resulted from the by-products of human actions but have also been released into the atmosphere by plants, animals, microorganisms, volcanoes and other geological occurrences.⁵⁰⁴ The usefulness of greenhouse gases to human life also makes it difficult to classify them solely as pollutants.

The uniqueness of climate change, when examining the: source; usefulness; and danger associated with greenhouse gases, makes climate exceptionalism a worthy perspective to follow. The uniqueness of climate change, in contrast to pollution, can also be seen in the usually direct negative effects attributed to air pollution such as respiratory discomfort, eye irritations or general aesthetic discomforts.⁵⁰⁵ Greenhouse gases on the other hand cause indirect harm wherein the excess gases in the atmosphere first start by heating up the earth and

⁵⁰¹ John Copeland Nagle, 'Climate Exceptionalism' (2010) 40(1) Environmental Law 53.

⁵⁰² ibid 53.

⁵⁰³ ibid 59.

⁵⁰⁴ ibid 57.

⁵⁰⁵ ibid 62.

causing other climatic changes which then lead to a myriad of environmental changes and anomalies which ultimately negatively impact human life, biodiversity and the environment as a whole.⁵⁰⁶

The difference in results and causes of harm, has prompted notable environmentalists like Michael Shellenberger and Ted Nordhaus⁵⁰⁷ to propose a change in how climate change is viewed and addressed. They propose that climate change should be viewed as a standalone problem in which the greenhouse gases, like CO₂, are dealt with through the formulation of new regulations and policies as opposed to categorizing them as air pollutants.⁵⁰⁸

Almost like an extension of the previous discussion calling for the creation of a separate climate change field of law, this proposition by Shellengerger and Nordhaus⁵⁰⁹ clamours for a separation of climate change from environmental problems like air pollution. They believe that distinguishing the problem of climate change from other global environmental problems leaves room for the possible development of innovative solutions and governance initiatives to combat climate change.⁵¹⁰ They believe categorizing climate change as an extension of air pollution would only stifle effective governance of the problem.⁵¹¹

It can therefore be argued that climate exceptionalism views climate change as a unique problem which should not be limited or categorized with other environmental issues when it comes to governance. The exceptionality of climate change has led to some scholars referring to it as a 'super wicked'⁵¹² problem unique from most other global issues. They argue that other environmental problems may be referred to as 'wicked problems' as a way of differentiating

⁵⁰⁶ ibid.

 ⁵⁰⁷ Michael Shellenberger and Ted Nordhaus, 'The Death of Environmentalism: Global Warming Politics in a Post-environmental World' (2009) 1(1) Geopolitics, History and International Relations 121.
⁵⁰⁸ ibid.

⁵⁰⁹ ibid.

⁵¹⁰ ibid 128.

⁵¹¹ ibid.

⁵¹² See authors like: Levin, Cashore el al (n 71) 2; and Lazarus (n 71) 1159.

the reduced level of intensity in comparison to climate change.⁵¹³ Wicked problems can generally be defined as those sets of public policy problems which are hard to resolve due to uncertainty and complications attributed to attaining a solution.⁵¹⁴

Scholars like Levin and Cashore⁵¹⁵, who developed their argument from the earlier works of Rittle and Weber⁵¹⁶, believe 'wicked problems' have certain characteristics such as: lacking in simplicity; the solution to the problem is attainable but not straightforward; and the solutions proposed are usually unique, innovative and every attempt to solve the wicked problem counts.⁵¹⁷ Lazarus⁵¹⁸ believes 'wicked problems' can also be referred to as *"social messes"* and states they can be exemplified by problems like plastic induced ocean pollution.

He opines that climate change is on a different level from these 'social messes' due to its distinct characteristics such as time not being costless.⁵¹⁹ Here, he argues that the longer it takes to deal with climate change the more costly and difficult it becomes to combat. This means that the effects of climate change, unlike most other environmental problems, has the potential to result in a gradual eroding of what makes earth habitable over time.

Lazarus⁵²⁰ also adds that a distinct characteristic of climate change is in the fact that its effects are felt in varying degrees all over the world. He argues that the countries which can be classified as the non-historical culprits of climate change are those countries which, at present, do not have the capacity to combat the problem and might even stand to suffer the brunt of the effects the most.⁵²¹ He believes this unevenness is quite distinct from other environmental

⁵¹³ Lazarus (n 71) 1159.

⁵¹⁴ ibid.

⁵¹⁵ Levin, Cashore el al (n 71) 4.

⁵¹⁶ Horst Rittel and Melvin Webber, 'Dilemmas in a General Theory of Planning' (1973) 4(2) Policy Science 155.

⁵¹⁷ Levin, Cashore el al (n 71) 4-9.

⁵¹⁸ Lazarus (n 71) 1160.

⁵¹⁹ ibid.

⁵²⁰ ibid.

⁵²¹ ibid.

problems.⁵²² He also states that the distinctiveness of climate change can be seen in what he argues to be the lack of an all-encompassing global governance regime that adequately matches the scope of the climate change problem.⁵²³

This point goes in line with the notion that climate change is a distinct and 'super wicked' problem wherein present day international environmental law governance initiatives are most likely not at par or effective enough to deal with it. The argument by scholars like Lazarus, Levin and Cashore places climate change on a distinct pedestal in comparison to other environmental problems in terms of global reach and potential destructiveness of its effects.

This thereby heightens the argument in favour of viewing climate change as an exceptional 'super wicked' problem requiring the creation of a separate legal field distinct from international environmental law. It should however be noted that in spite of the justification found in taking such an approach, this thesis aligns with the view that international environmental law tools and models of governance should not be discarded in the governance of climate change. Climate change should instead be governed as the exceptional problem not only limited to governance tools found in international environmental law.

Such an argument goes in line with the position clamoured for by John Nagle⁵²⁴ who believes climate change can be governed with already existing models used to govern global pollutants. He opines that governance should be done in conjunction with other fields of law in order to ensure a holistic and effective governance approach is attained.⁵²⁵ This position buttresses the stance that acknowledges the distinctiveness of the climate change problem requiring the

⁵²² ibid.

⁵²³ ibid 1160-1161.

⁵²⁴ Nagle (n 501) 68.

⁵²⁵ ibid.

adoption of an environmental sustainability approach which focuses on utilizing the most effective governance tools from all areas of law so as to attain proper governance.

3.4 Climate Change Governance and Environmental Sustainability: International or National Issue

Apart from understanding the place of climate change in international environmental law, it is also importance to examine which level of government would be most effective governing the climate change problem. This is in view of achieving a holistic analysis of the problem. It is however important to note that the fact that climate change has been caused and accelerated by years of continuous greenhouse gas emissions from various states of the world, makes it hard to pin-down which level of government is best suited to govern climate change. The effects are also felt globally in different ways making the terming of climate change as a 'super wicked'⁵²⁶ problem very fitting.

The exceptional status of climate change makes legislating and combating against it somewhat of a challenge. There exists arguments that profess that the global problem of climate change would best be governed if the initiatives and rules for governance are inspired and actualized at the international level rather than living it to individual States. There also exists those who argue in favour of climate change governance being left to States in terms of creating and implementing ways to govern the problem. Justifications can be found for aligning to either governance perspective.

⁵²⁶ Lazarus (n 71) 1160.

This thesis however takes the position that both models can coexist and will be needed to ensure effective governance of climate change. This is said in full consciousness of the fact that different countries are at different stages financially and in their developmental awareness of the threat of climate change. The way a country like Nigeria would strive to combat climate change would most likely be a bit different from how a country like the United Kingdom will handle it. This is not to say policies and actions cannot be adopted between both States but it will have to take into cognizance the socioeconomic disparities present in both countries.

Following the notion that 'one size does not fit all, but it is not helpful to have indefinite number of sizes '⁵²⁷, this section will showcase the arguments put forward for treating the issue of climate change as a global problem and the arguments that believe it should be treated as a national issue. This will then be concluded with a discussion of the multiscalar option wherein climate change is governed as both an international and a national problem requiring dual action.

3.4.1 Rationale for International Action

It can never be over emphasized the potential global effect the threat climate change poses to the world. The threat has come about due to historical greenhouse gas emissions coupled with ongoing emissions, which cannot be totally attributed to any particular country. It is therefore easy to see why Albert Lin⁵²⁸ referred to climate change as an ideal example of a *"tragedy of the commons"*.⁵²⁹ This term was made popular by Garrett Hardin⁵³⁰ in the late 1960's in his article with the same title. Hardin used this term when discussing the problem of

⁵²⁷ Smith (n 6) 29.

⁵²⁸ Lin (n 101) 1142.

⁵²⁹ ibid.

⁵³⁰ Garrett Hardin, 'The Tragedy of the Commons' (1968) 162(3859) Science 1243.

overpopulation, stating that the more the population grows the higher the level of demand being placed on resources.⁵³¹

Hardin opines that a higher demand on resources would lead to inequality.⁵³² Hardin's fears can be seen, in a sense, to be playing out in our present world in an exponential way through the threat of climate change. This is because the finite common resource, the earth, has been overused, degraded and polluted resulting in this global or common tragedy known as climate change.⁵³³ Humans have historically and at present, in different ways and at varying intensity, contributed to greenhouse gas emissions while competing for this finite resource, the earth, by carrying out activities that appear beneficial to them.⁵³⁴

The ongoing global struggle for this finite resource makes it somewhat difficult to hold a particular person, industry or government solely responsible for the problem of climate change. Borrowing from the previous discussion, which views climate change as an exceptional problem, it is almost impossible to justifiably link a particular State or person culpable for the climate change problem. This is somewhat different from most interstate environmental problems, like pollutions, wherein the culprit(s) is usually traceable. The Trail Smelter case⁵³⁵ exemplifies this point.

The case involved Canada and the USA over a smelter situated in British Columbia, Canada, which emitted Sulphur fumes causing damage to farms located in the State of Washington, USA. The arbitral tribunal decided the issue based on the international law principle of prohibition of transboundary harm. The principle requires that States ensure activities carried out within their territory do not cause injury, of any form, to the territory of neighbouring

⁵³¹ ibid 1244.

⁵³² ibid.

⁵³³ Lin (n 101) 1142.

⁵³⁴ ibid 1143.

⁵³⁵ United States v. Canada (Trail Smelter Case) 3 RIAA 1905 (1941).

States.⁵³⁶ Based on this principle, Canada was held culpable of causing the environmental pollution in the USA. The case is a classic example of how knowing the culprit of an environmental harm can aid in the governance and possible correction of the harm caused.

The conclusion can be made that, where the environmental harm is traceable, States may be better equipped to make effective laws to prevent the harm from reoccurring or hold another State culpable. The uniqueness of climate change, however makes it hard for States to hold a particular State directly liable. The magnitude and transboundary nature of the problem also undermines the possibility of a State taking governance steps with the view of insulating itself from the effects of climate change. Climate change is such that there is a need for global positive action for there to be effective governance.

This is the argument taken by Angela Williams⁵³⁷ who believes solidarity amongst States will be more effective in combating the problem of climate change rather than State solely inspired governance. She defines solidarity as a relationship within a community which aims to ensure all members are catered for and supported, especially the less equipped members.⁵³⁸ She opines that joint effort is needed to mitigate against the effects of climate change which will be felt in various degrees across all the nations on earth.⁵³⁹

Eric Biber⁵⁴⁰ supports this assertion and links the cause of climate change to the global quest for development. He believes that most developed countries played a huge role in historical emissions due to their drive for development. He expects developing countries, like Nigeria, to also continue this greenhouse emitting trend in view of them seeking to attain development.⁵⁴¹

⁵³⁶ Sands, Peel et al (n 197) 25.

⁵³⁷ Williams (n 156) 493.

⁵³⁸ ibid 497.

⁵³⁹ ibid 495.

⁵⁴⁰ Biber (n 333) 1298.

⁵⁴¹ ibid.

The transboundary nature of the effects of climate change and the growing possibility of increased greenhouse emission by States, stands as possible justifications for arguing that climate change will be better governed through international coordinated governance.

Rebecca Dowd and Jane McAdam⁵⁴² also both support this view by stating that international cooperation is needed when dealing with the issue of climate change. They believe developing countries, most especially, may not be properly equipped to mitigate against the threats or handle the resultant effects of climate change by themselves.⁵⁴³ This links directly with the view of Williams⁵⁴⁴ who believes increased solidarity in the international realm would ensure a more equitable handling of the threat of climate change. The equitable handling of climate change is already seen playing out, to an extent, where experts from different countries come together to research and advice States on the issue of climate change.

This is exemplified with the actions of the IPCC which is involved in globally researching and releasing data on climate change. This enables countries and policy makers to gain information on climate change which they might not have been able to obtain themselves.⁵⁴⁵ The lack of information, on the part of the States, might be as a result of lack of prioritisation or, in the case of most developing countries, lack of resources to carry out the research themselves.⁵⁴⁶ This further empowers the justification for having a top to bottom approach to climate change governance.

Such a governance system, wherein information, rules and means of implementation all originate internationally through the interaction of State and non-State actors, might be ideal

⁵⁴² Rebecca Dowd and Jane McAdam, 'International Cooperation and Responsibility Sharing to Combat Climate Change: Lessons for International Refugee Law' (2017) 18(2) Melbourne Journal of International Law 181.

⁵⁴³ ibid.

⁵⁴⁴ Williams (n 156) 497.

⁵⁴⁵ Jobodwana (n 179) 218.

⁵⁴⁶ ibid.

in dealing with a global problem like climate change. This approach stands the chance of ensuring that weak and vulnerable countries are supported and catered for in the governance of climate change by their stronger counterparts. The main strength of this approach is based on solidarity amongst countries and fluidity of support especially if there is an adoption of an environmental sustainability governance approach.

3.4.2 Rationale for State Ownership

As there exists a rational argument that can be put forward in favour of approaching the governance of climate change from a top to bottom lens, there also exists some level of justification that can be given to leaving States with the sole responsibility of governing climate change. The foundation of this argument conceives that States are independent and sovereign with the ability to make their own rules and govern their own jurisdictions. This view also believes that all States are unique with their own system of government, culture, and traits which distinguishes them from other States.

Based on this inherent uniqueness, it is therefore safe to assume that States will experience and react to the problem of climate change in different ways, however slight. This is the opinion taken by Ruhl⁵⁴⁷ who believes that the variation in the intensity level by which States experience the effects of climate change, can be seen as a form of justification for having States and, to some extent, regional bodies be in charge of climate change governance. He examined the different states within the US for his analysis and came out with the conclusion that the uniqueness of these states, representing a speck of the global uniqueness of countries, signifies

⁵⁴⁷ J. B. Ruhl, 'Climate Change Adaptation and the Structural Transformation of Environmental Law' (2010) 40 Environmental Law 427.

that it may almost be impossible to formulate a single all-encompassing governance regime on climate change.⁵⁴⁸

Jacqueline Peel⁵⁴⁹, in supporting this analysis in the global sense, also believes attaining a general governance regime on climate change, adoptable by all countries, might be hard to achieve. She believes countries have different legislative schemes, tolerance levels and economic targets which makes global negotiations, and implementation of global targets aimed at combating the threat of climate change, hard.⁵⁵⁰ This uniqueness highlighted by Ruhl and Peel, stands as arguments in favour of having States take individual control of how climate change is to be governed.

In addition to this, the problem around implementation of global rules and initiatives uniformly by States, can also be stated as a possible reason for disqualifying the global approach to climate change governance in favour of State run governance. This is buttressed by the fact that despite the existence of a number of international initiatives to govern climate change, to which a lot of States are signatories, there still exists little corresponding national efforts. Daniel Farber⁵⁵¹ argues that maintaining a top heavy approach, to climate change governance, would only encourage increased awareness of the seriousness of the climate change problem which may not necessarily result in States taking the needed governance action.

It is therefore safe to conclude that effective governance of climate change will need to go beyond global sharing of information and technological understanding of the problem. There is a need for States to be active in reducing the emissions within their territory in order for there

⁵⁴⁸ ibid.

⁵⁴⁹ Jacqueline Peel, 'Divergent Responses to Climate Change in a Multipolar World: A View from Down Under' (2013) 107 American Society of International Law 76.

⁵⁵⁰ ibid 78.

⁵⁵¹ Daniel A. Farber, 'A Legal Framework for Climate Adaptation Assessment' (2009) 9(14) Resources For The Future 2.

to be a possible combating of the problem.⁵⁵² In reality, this could mean a country like Nigeria adopting an environmental sustainability approach wherein it takes ownership of its governance of climate change by making changes in its energy sector, transportation sector and agriculture sector with the ultimate aim of reducing the level of emissions within the country.⁵⁵³

3.4.3 Rationale for Multiscalar Action

The above discussions show possible justifications for governing climate change either from a global-first perspective or a State-led perspective. However, due to the peculiarity and the urgency of the climate change problem, this thesis believes a combination of both perspectives is required. Climate change is a problem that transcends international and national lines and should be viewed as a global, regional, national and local individual's problem.⁵⁵⁴ This realisation should prompt an 'all hands on deck' approach to the governance of climate change.

Justification for the adoption of a multiscalar approach to the governance can also be seen in the inherent disadvantages posed by the adoption of only one of the stated perspectives: international centred or State ownership. Starting with the international top to bottom view to climate change governance, there exists advantages in adopting a stance of solidarity. This is especially significant to the developing counties who stand to suffer the brunt of the effect of climate change and are usually ill-equipped to deal with the problem.⁵⁵⁵

This call for solidarity can be a means of attaining a more rounded form of climate change governance. It can also lead to some States taking a lax attitude to governance. This point was echoed by Williams⁵⁵⁶ who believes the motivation behind States devolving part of their

⁵⁵² Dobbins, Solomon et al (n 187) 75.

⁵⁵³ ibid 71.

⁵⁵⁴ Hari M. Osofsky, 'Is Climate Change "International"? Litigation's Diagonal Regulatory Role' (2009) 49(3) Virginia Journal of Law 587.

⁵⁵⁵ Dowd and McAdam (n 542) 182-183.

⁵⁵⁶ Williams (n 156) 498.

authority in favour of a centralized international led governance regime is important to note. She suggests that States may choose to work together out of solidarity either as a result of altruism or for self-interest.⁵⁵⁷

Altruism, as the motivational drive for coming together to govern climate change, is exemplified by States who view climate change as a serious problem requiring a hard-line environmental sustainability approach to governance. Mark Smith⁵⁵⁸ is of the view that States motivated by this drive for community governance are usually striving for environmental equity and justice. States that are driven by this mind-set believe it is the equitable and just thing to do.⁵⁵⁹ There is a common interest to reduce global emissions and ensure the self-preservation of the human race.

In practice, altruism could mean developed States taking a higher responsibility in combating climate change due to their stronger economies and increased development in comparison to their developing State counterparts.⁵⁶⁰ Williams⁵⁶¹ believes this philanthropic demand on the developed countries, is not one universally subscribed too. Not all developed countries will be willing to take up climate change governance burdens when their developing country counterparts are given little to no burden. One of the pitfalls of the Kyoto Protocol, which will be examined in detail in the next chapter, was that the US government echoed this same sentiments which undermined the global initiative.

The second and more relatable motivating factor for States to come together, according to Williams⁵⁶², is self-interest. Peter Baldwin⁵⁶³ believes that individuals, groups or States would

⁵⁵⁷ ibid 500.

⁵⁵⁸ Smith (n 6) 65.

⁵⁵⁹ ibid.

⁵⁶⁰ Mayer (n 72) 27.

⁵⁶¹ Williams (n 156) 501.

⁵⁶² ibid 500.

⁵⁶³ Peter Baldwin, *The Politics of Social Solidarity: Class Bases of the European Welfare State* 1875 – 1975 (CUP 1990) 22.

willingly improve others within their community once they have the conviction that it will result in an improvement to their own well-being. This form of relationship, in terms of climate change governance, can be likened to a form of cost-benefit relationship wherein countries come together in solidarity, in the global community, to follow set rules that combat climate change because of the direct benefit they will enjoy from doing so.⁵⁶⁴

For developed countries this could mean adhering to global rules and initiatives to govern climate change which allows for foreign investment in developing countries. Here, these developed countries are supporting emission reduction initiatives while also promoting their investment capabilities. However, the possible disadvantage of self-interest being the motivation behind solidarity amongst countries is the danger of short-sightedness.⁵⁶⁵ If States place short term economic gain as the ultimate drive for international cooperation rather than emission reduction, more often than not, the most economic friendly options might be taken over an option that might be the most climate friendly.⁵⁶⁶

The argument can therefore be made that, in view of attaining solidarity, the anthropocentric version of environmental interaction subscribed to by a State, may lead to the top to bottom approach being an ineffective means of governing climate change. There also exists possible shortfalls with adopting a singular State-focused approach to governing climate change. Mark Smith⁵⁶⁷ states that as much as it might not be possible for all States to follow a single set of global rules to climate change governance, there also exists the danger in expecting all States to come up with effective rules, by themselves, which would properly govern climate change.

⁵⁶⁴ Williams (n 156) 500.

⁵⁶⁵ Baldwin (n 563) 23.

⁵⁶⁶ Williams (n 156) 500.

⁵⁶⁷ Smith (n 6) 29.

He believes a State-centred form of governance could potentially lead to the possibility of there being too many systems which may not necessarily be effective due to the developmental differences present amongst States.⁵⁶⁸ This sentiment is also shared by Jacqueline Peel⁵⁶⁹ who opines that a bottom-up approach, requiring countries to set their own regulations, could easily lead to the possibility of there being regulations which are inefficient or unattainable.

For developing countries, most especially, a State-centred approach may be disadvantageous due to the fact that these countries are already struggling with high levels of poverty and inequality. They may not have the needed scientific knowledge to properly mitigate or adapt to climate change which may lead to inefficient or, even, negatively impacting climate change governance steps.⁵⁷⁰

In view of the flaws and strengths of the two approaches, having a combination of both international and national action will increase the chances of achieving a more holistic and effective governance of the threat posed by climate change. This will mean having a system that ensures States take greater ownership of emission control and reduction while at the same time adhering to international policies and programs aimed at combating climate change.⁵⁷¹

The multiscalar system takes into cognisance the important role of States as major policy and economic actors with the ability to innovatively develop policies to combat climate change. It also views them as distinct parties with the ability to agree and adhere to international rules in such a way that fits their uniqueness.⁵⁷²

⁵⁶⁸ ibid.

⁵⁶⁹ Peel (n 549) 78.

⁵⁷⁰ Dobbins, Solomon et al (n 187) 71.

 ⁵⁷¹ Benoit Mayer and Mikko Rajavuori, 'State Ownership and Climate Change: Overcoming the Carbon Curse' (2017) 11(3) Carbon & Climate Law Review 223.
⁵⁷² ibid.

^{- ---}

The multiscalar approach seeks to encourage States to view climate change as a global problem while also maintaining national ownership in the way governance initiatives are implemented. The global nature of governance will also enable the avenue for States to receive and give support financially or technologically in line with reducing greenhouse gas emissions and ultimately combating climate change.⁵⁷³

This approach also envisions that individuals within States will become more conscious of how their actions can reduce the amount of greenhouse gases emitted. Individual choices and general social behaviour would be driven by more environmentally sustainable practices.⁵⁷⁴

States, in line with seeing themselves as part of the global community, will be more driven to adopt an environmental sustainability approach to climate change governance due to the potential fluidity of knowledge and support geared towards emission reduction and human preservation.⁵⁷⁵ There will also be increased involvement by NGOs in the governance of climate change by researching and educating States on new findings relating to climate change, especially developing countries that may be too poor to carry out such research themselves. The NGOs will also help put pressure on States to act.⁵⁷⁶

In general, the multiscalar approach can potentially ensure: there is a sense of ownership at all levels; increase participation of States and non-State actors; while providing a sense of uniformity amongst States, in terms of mitigation and adaptation policies. The approach will hopefully also allow for individual State creativity.

⁵⁷³ Osofsky (n 554) 632.

⁵⁷⁴ ibid 592-594.

⁵⁷⁵ Mayer and Rajavuori (n 571) 224.

⁵⁷⁶ Peel (n 485) 972-973.

3.5 Conclusion

The scientific examination of the problem of climate change establishes the need for the application of an effective mode of governance to ensure emission reduction and the attainment of a sustainable future. The level of governance to be applied to this global problem has, however, not been one uniformly aligned on. Some scholars believe the global reach of climate change, including the lack of a clear culprit, makes this environmental problem an exceptional and super wicked one. The exceptionality of the problem makes viewing and governing it, solely under international environmental law, somewhat improper. The basis of this argument is that climate change affects different aspects of human life.

Therefore limiting the governance of this multifaceted problem to only tools found in international environmental law could lead to an ineffective form of governance. There is also the belief that the exceptionality of climate change might negatively impact the governance of other global environmental problems. This was discussed, in this chapter, as the potential crowding out of international environmental law wherein there is a gravitating and refocusing of the subject to be viewed mainly as an instrument for governing climate change alone.

In view of avoiding this problem of crowding out, and in line with the unique status of climate change, there has been an increased call for the creation of a separate field of law called climate change law, separate and distinct from international environmental law. This thesis recognizes the usefulness of this proposition but believes that, in the absence of the creation of such a field, climate change can still be governed under international environmental law. There should however be a willingness to adopt and utilize different tools from other areas of law so as to ensure a more holistic governance regime is achieved.
Taking such a position will enable both developed and developing countries utilize governance tools they are already used to while also leaving room for innovation. This holistic approach to governance will potentially ensure an optimal and environmental sustainability stance to climate change governance is attained. Also, in line with the discussion relating to the optimal way to govern climate change, this chapter delved into understanding which level of government was best suited to lead climate change governance.

It was highlighted in this chapter that there exists credible arguments in favour of either having a global-led model of climate change governance or a State-owned model of climate change governance. This thesis settled on the fact that the multifaceted status of the climate change problem commands the need for a multiscalar approach to governance wherein both the global community and the States are equally recruited in the governance of climate change. The belief here is that climate change is an exceptional problem requiring the adoption of an 'all hands on deck' approach to give humanity a fighting chance of success.

This would involve State and non-State actors coming together to find ways to ensure climate change is properly governed so as to ensure the continuous reduction in the global levels of greenhouse gases emitted. This goes in line with adopting a hard-line environmental sustainability approach globally to climate change governance. Further in line with this multiscalar approach to governance, this thesis aims to examine the steps taken globally and by States in the governance of climate change. The next chapter will start off by examining the various global legal initiatives specifically set up to govern climate change.

CHAPTER 4 – INTERNATIONAL GOVERNANCE FRAMEWORKS ON CLIMATE CHANGE: GROWING FOCUS ON ENVIRONMENTAL SUSTAINABILITY

4.1 Introduction

Governing the climate change problem has been discovered to require a willingness to adopt a fluid thinking approach due to the exceptional nature of the problem. It was established, in the preceding chapter, that a holistic governance approach is needed to address this 'super wicked' problem. This will mean acknowledging that climate change is a complex problem requiring the adoption and utilization of legal governance steps not only limited to international environmental law. The holistic nature of governing climate change will also require the adoption of a multifaceted approach to governance wherein both international and national governance initiatives are utilized and allowed to thrive.

In line with taking this multifaceted approach to climate change governance, this chapter will examine the different international governance initiatives which have been specifically established to govern the problem of climate change. The need to understand these initiatives also comes from the acknowledgment that most legal initiatives adopted by States to combat climate change, have historically trickled down from the international realm. A large number of States are also seen to have contributed in the formulation of these global initiatives and are even signatories to them, including Nigeria.

This chapter, in acknowledging the importance of the global governance initiatives on climate change, will go on to examine: the UNFCCC; the Kyoto Protocol; and the Paris Agreement. The analysis will showcase the main principles established in the different global initiatives

and also showcase any perceived failures. The examination of these different global governance initiatives will also serve to show a slow but gradual move and adoption of an environmental sustainability approach to the global governance of climate change. This will be done in view of highlighting the growing understanding of the seriousness and exceptionality of the climate change problem in the international realm. This chapter will however start off by discussing how the awareness of the climate change problem developed globally.

4.2 International Developmental Awareness of the Climate Change Problem

The governance of climate change, be it internationally or nationally, has been highly driven by the discoveries and findings in the area of science. These scientific discoveries, showcasing the exceptionality and seriousness of the climate change problem, has been instrumental in stirring the international community towards adopting a more environmental sustainability governance approach to climate change. This, however, was not initially the case.

Scientific writings stipulating the potential seriousness of climate change and the connection with human activities, were historically not taken seriously by policy makers. One of such early scientific writings was by Swedish Chemist Svante Arrhenius⁵⁷⁷ who, in 1896, sought to bring public attention to how human activities, specifically the burning of coal, was increasing the level of CO₂ in the atmosphere. There was however a general unwillingness to accept the findings, especially at a time where serious focus was on industrialization and economic expansion.

His findings came during an era popularly referred to as the Second industrial revolution, between the mid 1860's and early 1900's, where the focus was on increasing the mechanization

147 | Page

⁵⁷⁷ Betsill (n 411) 112.

of factories; building of rails and other means of transportation; and the development of electrification.⁵⁷⁸ The drive for industrial and economic growth was spearheaded, mainly, by countries in Western Europe and the USA, States who are presently considered amongst the developed countries.

It is safe to assume that these countries were highly driven by the goal to achieve economic expansion which meant they disregarded anything they considered would derail them from achieving this goal. This ultimately meant that environmental care and governance was in no way prioritized. Internationally, this behaviour of States, of prioritizing economic gain and side-lining environmental protection, meant that there was no discussions relating to climate change governance.⁵⁷⁹

It is worth pointing out that, at that time, most of the present day developing countries were under some form of colonial rule which barred them from actively participating or contributing to any version of international governance. The colonial discussion is also worth highlighting because these countries, largely prior to the mid 1900's when most gained independence, lacked the right to self-autonomy and existed as extensions of their colonial masters.

Rupert Emerson⁵⁸⁰, a renowned historian, explains that colonialism usually took the form of white imposition and dominance, mostly by the Europeans, of indigenous communities around the world. This usually took the form of the European power house economically, politically, socially and sometimes culturally controlling these indigenous communities and ruling them as an extension of their own government.⁵⁸¹ These indigenous communities, which were mostly

⁵⁷⁸ Andrew Atkeson and Patrick J. Kehoe, 'Modelling the Transition to a New Economy: Lessons from Two Technological Revolutions' (2007) 97(1) the American Economic Review 64.

 ⁵⁷⁹ Brian C. Rathbun, 'The Magnificent Fraud: Trust, International Cooperation, and the Hidden Domestic
Politics of American Multilateralism after World War II' (2011) 55(1) International Studies Quarterly 1 – 2.
⁵⁸⁰ Rupert Emerson, 'Colonialism' (1969) 4(1) Journal of Contemporary History 3.

⁵⁸¹ Hussein A. Bulhan, 'Stages of Colonialism in Africa: From Occupation of Land to Occupation of Being' (2015) 3(1) Journal of Social and Political Psychology 240.

found in parts of Asia and Africa, carried out economic centred activities for their colonial masters.

For example, present day Nigeria was created by the British colonialists who brought together different ethnic groups found in the then Western part of Africa.⁵⁸² The main purpose of doing this was to ease their supervisory control in the region. Nigeria, during the era of colonialism, existed solely as a resource centre for the colonial government rule of the UK.⁵⁸³

This meant that all economic centred activities, which had the potential to lead to the emissions of greenhouse gases, were instituted by and for the European powerhouses, even if it was carried out within a colony like Nigeria. The position found in Nigeria was mirrored in almost all the countries under colonial rule. The lack of self-autonomy amongst these countries, at the time, also meant that only a handful of countries had a say in the direction adopted by the global community. This began to change after the end of World War II in 1945.

The end of the war ushered in a new global phase which was littered with a quest for global stability and cooperation. A number of multilateral agreements were signed and the UN was created to signify the openness of States to cooperate more and avoid another global war.⁵⁸⁴ This new found sense of unity also coincided with the liberation of a lot of countries that had previously been under colonial rule. Nigeria, for example, gained its independence in 1960.⁵⁸⁵

These liberated countries embraced the global drive for unity, arguably, with the mind of gaining some level of international support in their drive to attain economic growth and development. The power balance, in favour of the richer and well developed countries, meant

⁵⁸² Emmanuel Oladipo Ojo, 'Nigeria, 1914-2014: From Creation to Cremation?' (2014) 23 Journal of the Historical Society of Nigeria 75.

⁵⁸³ ibid 68.

⁵⁸⁴ Rathbun (n 579) 4.

⁵⁸⁵ Olayinka Akanle, 'The Development Exceptionality of Nigeria: The Context of Political and Social Currents' (2013) 59(3) Africa Today 33.

that the direction of global governance was highly driven by the developed countries at the time. In view of this fact and in line with the increased global collaboration amongst countries, some scientists, mostly from the developed countries, were able to bring the issue of climate change to international attention. Renowned oceanographers, Roger Revelle and Hans Suess⁵⁸⁶, where amongst the first scientists to corroborate the earlier works of Arrhenius regarding the growing problem of human induced climate change in their findings published in 1957.

They highlighted that the increasing levels of CO₂, as a result of industrialization, would become too much for the ocean to absorb which would invariably affect the earth's atmospheric composition.⁵⁸⁷ This position found traction and was further affirmed by the International Council of Scientific Unions who, in their annual International Geophysical Year activities of 1957 to 1958, stated the level of greenhouse gases in the atmosphere had observably been on the increase.⁵⁸⁸

The discovery came about from the observatory set up in Mauna Loa, Hawaii to monitor the level of CO₂ in the atmosphere. The findings of the Mauna Loa group corroborated previous scientific studies showcasing a considerable increase in the level of greenhouse gases in the atmosphere as a result of human led activities.⁵⁸⁹ These scientific revelations, including growing global collaboration amongst scientists on the subject, eventually led global policy makers to take notice and begin discussions relating to the governance of climate change.⁵⁹⁰

⁵⁸⁶ Roger Revelle and Hans E. Suess, 'Carbon Dioxide Exchange Between Atmosphere and Ocean and the Question of an Increase of Atmospheric CO2 during the Past Decades' (1957) 9(1) Tellus 18 http://uscentrist.org/platform/positions/environment/context-environment/docs/Revelle-Suess1957.pdf

<http://uscentrist.org/platform/positions/environment/context-environment/docs/Revelle-Suess195/.pdf> accessed 1 March 2019.

⁵⁸⁷ ibid.

⁵⁸⁸ Diana Liverman, 'Conventions of Climate Change: Constructions of Danger and the Dispossession of the Atmosphere' (2009) 35 Journal of Historical Geography 282.

 ⁵⁸⁹ Lee Godden, 'Death, Desire, Modernity and Redemption: Climate Change and Public International Environmental Law' (2009) 10(2) Melbourne Journal of International Law 557.
⁵⁹⁰ Mayer (n 72) 34.

These discussions, like most global issues at the time, were spearheaded largely by developed countries in Europe and North America. Newly formed countries like Nigeria and other developing countries, even though present in most of these discussions, were arguably more focused on economic growth. They sought to ensure global climate change governance had little impact on their search for development. The position taken by countries like Nigeria will be exemplified in the next section during the negotiations leading to the creation of the UNFCCC.

In following the theme of climate change governance wherein the push for global governance comes from the scientific community, the WMO in 1979, convened a conference, aptly called the First World Climate Conference, with scientists and other policy makers from around the world in attendance to discuss the issue of climate change.⁵⁹¹ At the conference, the WMO established the World Climate Program saddled with the responsibility of researching the physical basis of the climatic system so as to adequately obtain credible projections of the changing climate.⁵⁹²

The conference concluded by making a general appeal to nations of the world to *"foresee and to prevent potential man-made changes in climate that might be adverse to the well-being of humanity*".⁵⁹³ Following on from this conference, more conferences, spearheaded by scientists, where convened by the WMO and the UN.⁵⁹⁴ There were two conferences held in Villach, Austria in 1985 and 1987, which were followed closely by another conference held in Bellagio, Italy in November 1987.⁵⁹⁵

⁵⁹¹ John W. Zillman, 'A History of Climate Activities' (2009) 58(3) WMO Bulletin 143.

⁵⁹² ibid 144.

⁵⁹³ World Metrological Organization, 'Proceedings of the World Climate Conference: a Conference of Experts on Climate and Mankind' (WMO No. 537, Geneva, February 1979) 713.

⁵⁹⁴ Betsill (n 411) 114.

⁵⁹⁵ Zilman (n 591) 144.

These conferences, still heavily orchestrated by scientists with little political involvement, continually echoed the growing danger of climate change and the urgent need for policy action. This position was aptly captured by the delegates of the Bellagio 1987 conference who consensually recommended that governments and policy makers need to *"immediately begin to re-examine their long term energy strategies with the goal of achieving high end-use efficiency, reducing multiple forms of air pollution and reducing CO₂ emissions".⁵⁹⁶*

The constant recommendations and voiced out concerns by global scientists of the deteriorating state of the earth's climate was finally getting the attention of policy makers with the Canadian government volunteering to sponsor the next climate change conference.⁵⁹⁷ The conference held in Toronto, in 1988, was titled the World Conference on the Changing Atmosphere.⁵⁹⁸ This conference has been widely lauded for being the precursor to increased involvement of policy makers, legal scholars and governments in the governance of climate change.⁵⁹⁹

The delegates, consisting of policy makers, scientist and industry representatives, all agreed that climate change was to be considered as a big international concern.⁶⁰⁰ The conference advised governments to adhere to specific targets and timeframes by which the global levels of greenhouse gas emissions would be reduced.⁶⁰¹ This recommendation has subsequently been referred to as the Toronto target.

The 1988 conference also brought about the establishment of the IPCC by the UNEP and the WMO. The IPCC was set up to be a hub for blending scientific findings on the impact and

⁵⁹⁶ Jill Jaeger, 'Developing Policies for Responding to Climate Change: a Summary of the Discussions and Recommendations of the Workshops held in Villach (28 September – 2 October 1987) and Bellagio (9 – 13 November 1987) under the Auspices of the Beijer Institute, Stockholm' in W. C. Clark et al, *World Climate Programme Impact Studies* (World Metrological Organization 1988) 37.

⁵⁹⁷ Betsill (n 411) 114.

⁵⁹⁸ ibid.

⁵⁹⁹ ibid.

⁶⁰⁰ Zillman (n 591) 145.

⁶⁰¹ World Metrological Organization, 'Proceedings of the World Conference on the Changing Atmosphere: Implications for Global Security' (WMO No. 710, Geneva, June 1988) 296.

possible mitigation options regarding climate change, to help policy makers make informed decisions.⁶⁰² Following on from the findings and recommendations of the 1988 Toronto Conference coupled with the publication of the IPCC's first report, published in 1990, policy makers began to finally see the urgent need for global governance to combat the threat of climate change.⁶⁰³

In view of this, the UN General Assembly, in December 1990, established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INCFCCC) to anchor negotiations between member countries in view of attaining a globally binding document which will be adhered to for the effective global combating of the climate change problem.⁶⁰⁴ The eventually negotiated document became the United Nations Framework Convention on Climate Change (UNFCCC).

4.3 United Nations Framework Convention on Climate Change

4.3.1 Negotiating the UNFCCC

The INCFCCC set out to get both developed and developing countries to come together to negotiate the creation of a global framework for the governance of climate change. The task of the committee in motivating countries to negotiate was made a bit easier due to the first Assessment Report published by the IPCC. This first ever Report, published in 1990, stipulated

⁶⁰² Betsill (n 411) 115.

⁶⁰³ ibid.

⁶⁰⁴ Mayer (n 72) 35.

the growing danger of anthropocentric led climate change and the negative impacts this has on the rise in sea levels⁶⁰⁵ and the general ecosystem⁶⁰⁶.

The publication, which portrayed climate change as a very serious global issue, helped nudge policy makers to begin global climate change governance negotiations. The INCFCCC sought to complete all negotiations relating to the new climate change governance framework by June 1992. This was in view of presenting the final document at the impending UN Conference on Environment and Development, titled the Earth Summit, intended to be held in Rio de Janeiro, Brazil in June 1992.⁶⁰⁷

In line with this, six intense meetings were anchored by the committee involving different countries of the world between February 1991 and May 1992.⁶⁰⁸ The different countries participated in the negotiations with varying objectives and views on how the climate change problem was to be governed. For example, most developing countries, like Nigeria, entered these climate change negotiations with some pre-set views and objectives, top of which was flexibility.

These countries sought to ensure that whatever global governance initiative created to govern climate change did not hamper or jeopardize their quest for development and growth.⁶⁰⁹ There was the widespread belief amongst these developing countries that developed countries contributed greatly to historical emissions and they, developing countries, should not be made

⁶⁰⁵ R. A. Warrick and H. Oerlemans, 'Sea Level Rise' in J. T. Houghton, G. J. Jenkins and J. J. Ephraums (eds), *Climate Change: The IPCC Scientific Assessment* (CUP 1990) 257.

 ⁶⁰⁶ J. M. Melilo, T. V. Callaghan et al 'Effects on Ecosystem' in J. T. Houghton, G. J. Jenkins and J. J.
Ephraums (eds), *Climate Change: The IPCC Scientific Assessment* (CUP 1990) 283.
⁶⁰⁷ Zillman (n 591) 147.

⁶⁰⁸ Mayer (n 72) 35.

⁶⁰⁹ Joyeeta Gupta, Our Simmering Planet (Palgrave Macmillan 2000) 31.

to take on responsibilities that might hamper their development.⁶¹⁰ They sought to input clear principles to safeguard this position within the eventual governance framework.⁶¹¹

Developed countries, on the hand, entered the negotiations with different set of agendas. A set of these countries, mostly found in Western Europe, were keen on adopting a hard-line environmental sustainability approach to governance whereas, other developed countries, like the USA, wanted a flexible governance regime which left room for voluntary obligations set on a country by country basis.⁶¹²

The clear non-uniformity, in views and objectives, amongst the different countries prompted the UN to organize countries into different negotiating blocs.⁶¹³ These negotiating blocs were made up of countries with similar economic positions, views, interest and fiscal focus with some countries falling into more than one negotiating bloc. The negotiating blocs or coalitions were very appealing to developing countries and smaller sized countries who felt they lacked the economic might and negotiating prowess to ensure their interests were well protected.⁶¹⁴

One of such negotiating blocs, to which Nigeria was amongst the founding members, was the G-77 and China Group.⁶¹⁵ The group, which was comprised of developing countries, sought to ensure possible foreign financial investment, and their general aim of attaining economic and social development, was not jeopardized.⁶¹⁶ Nigeria was also a member of two other negotiating blocs that sought to prioritize economic development. These were: the Organization of Petroleum Exporting Countries (OPEC) Group; and the Africa Group.⁶¹⁷

⁶¹⁰ ibid.

⁶¹¹ ibid 58.

⁶¹² ibid 59.

⁶¹³ Betsill (n 411) 115.

⁶¹⁴ Yamin and Depledge (n 89) 33.

⁶¹⁵ It is interesting to note that China participated in the G-77 meetings and decision making process without fully acknowledging itself as a member. Hence, all official documentation relating to the group was titled 'G-77 and China'.

⁶¹⁶ Yamin and Depledge (n 89) 34.

⁶¹⁷ Betsill (n 411) 116.

The Africa Group sought to safeguard similar interests like those of the G-77 and China Group. The Africa Group sought to ensure that member African countries were aided with resources needed to reduce the impact of climate change while also building up their economic capacity.⁶¹⁸ The OPEC Group, as the name implies, was made up of oil producing countries. These countries were very apprehensive of the global drive to combat climate change because most of their economies were greatly reliant on petroleum exportation which was increasingly seen as one of the key contributors of greenhouse gas emissions negatively impacting climate change.⁶¹⁹

OPEC Group countries like Nigeria, who fell under this bracket of heavy oil reliance, sought to ensure their main revenue generator was not affected.⁶²⁰ The assumption can therefore be made that Nigeria, based on the three negotiating blocs to which it was a member, entered the negotiations highly focused on protecting its perceived source of economic growth and its drive for economic development. This assumption can be stretched to add that the country's focus on safeguarding its economic position went in line with trying to avoid been saddled with the direct responsibility of governing climate change.

There were also various negotiating blocs to cover the interest of the developed countries. One of such negotiating blocs was the Umbrella Group comprising of Australia, New Zealand, Japan, Russia, Ukraine, Iceland, Norway, Canada and the USA.⁶²¹ This group sought to make climate change governance measures based on flexible market mechanisms.⁶²² Their aim was to ensure that climate change governance did not adversely affect their economies.⁶²³

⁶¹⁸ Ibid.

⁶¹⁹ Yamin and Depledge (n 89) 40.

⁶²⁰ Akanle (n 585) 32.

⁶²¹ Betsill (n 411) 116.

⁶²² ibid.

⁶²³ ibid.

Another negotiating bloc comprised of developed countries was the EU Group made up of EU member countries like the UK.⁶²⁴ This group had a different proposition for climate change governance from what was put forward by the Umbrella Group. The EU Group proposed an environmental sustainability approach to climate change governance which consisted of imputing strict timelines into the proposed legal global framework on climate change by which global greenhouse emissions were to be reduced by.⁶²⁵

There were other negotiating blocs set up to safeguard the interests of other groups of countries. These were: the Alliance of Small Island States (AOSIS) Group; the Least Developed Countries (LDCs) Group; Environmental Integrity Group (EIG); and the Central Asia, Caucasus, Albania and Moldova (CACAM) Group.⁶²⁶

Apart from the State negotiating blocs, NGOs, referred to as constituencies, were acknowledged by the UN to participate as stakeholders in the negotiation process. They ranged from: Environmental NGOs; Business and Industry NGOs; NGOs protecting the rights of Indigenous People; and Science related NGOs.⁶²⁷ All the different State negotiating blocs and constituencies were involved in intense negotiations regarding how the intended global framework document was to be worded.

Despite the varying views and opinions, it can be argued that the underlying conflict in negotiations was between two groups. There was the State negotiating blocs and constituencies which ultimately wanted a climate change governance regime that mirrored the old anthropocentric human centred approach, which ensured the pursuit for economic development and growth was in no way affected. To the other end of the spectrum, there were those who

⁶²⁴ Yamin and Depledge (n 89) 42.

⁶²⁵ ibid.

⁶²⁶ Betsill (n 411) 116.

 $^{^{627}}$ Yamin and Depledge (n 89) 49 – 50.

viewed climate change as a very serious problem and sought to take a hard line approach to climate change governance.

Nigeria exemplified a country that fell under the former group with a personal focus on ensuring its economic and social development was not affected by the impending global instrument on climate change.⁶²⁸ Apart from the level of poverty in Nigeria, the country's high reliance on oil production and exportation, stood as motivators for subscribing to a heavily anthropocentric form of climate change governance.

The US also subscribed to the former viewpoint relating to direction to be taken by the impending global framework on climate change. The US, understanding that the onus for combating climate change may most likely fall on developed countries, suggested that the wordings of the proposed global climate change document be less committal and be more flexible.⁶²⁹

This view was echoed by constituencies made up of businesses and industries who believed a rigid approach to global governance would most likely negatively impact them.⁶³⁰ The EU countries on the other hand subscribed to the latter position calling for the proposed document to be clearly worded containing stringent emission reduction targets and timelines.⁶³¹

In a guise to fit in all the various interests and to ensure a general form of consensus was attained amongst the parties, the draft text consisted of ambitious targets clothed in considerably vague language.⁶³² This, however, did not stop the parties from agreeing on the document which was formally adopted as the UNFCCC on the 9th of May, 1992.⁶³³ The

⁶²⁸ Betsill (n 411) 116.

⁶²⁹ Gupta (n 609) 31.

⁶³⁰ ibid.

⁶³¹ Yamin and Depledge (n 89) 42.

⁶³² Mayer (n 72) 35.

⁶³³ Peel (n 485) 928.

UNFCCC was then open for countries to sign up to at the Earth Summit held in Rio in June 1992.

The UNFCCC officially entered into force on the 21st of March, 1994 marking the birth of global climate change governance.⁶³⁴ As of the time of writing of this thesis, one hundred and ninety six (196) countries and the EU, had ratified the UNFCCC. This includes non-UN member states, making the UNFCCC a truly global legal instrument.⁶³⁵ Nigeria ratified the UNFCCC on the 29th of August 1994.⁶³⁶

4.3.2 Elements of the UNFCCC

The UNFCCC is widely seen as a remarkable show of global unity and the birth of positive legal steps to combat the problem of climate change.⁶³⁷ The evidence of this can be seen in the number of States, One hundred and forty three (143), which partook in the final round of negotiations leading up to the creation of the UNFCCC (also referred to as the Convention).⁶³⁸

For a well-rounded understanding of this new global governance document, certain key elements must be highlighted and examined. These are: the objectives of the UNFCCC; the guiding principles of the UNFCCC; the national commitments under the UNFCCC; and the institutional structures created under the UNFCCC.

4.3.2.1 Objective of the UNFCCC

The 'ultimate objective' of the UNFCCC, as it is worded in the Convention, is to ensure "...stabilization of greenhouse gas concentrations in the atmosphere at a level that would

⁶³⁴ Mayer (n 72) 35.

⁶³⁵ Peel (n 485) 928.

⁶³⁶ United Nations Framework Convention on Climate Change treaty status https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=IND&mtdsg_no=XXVII-

^{7&}amp;chapter=27&Temp=mtdsg3&clang=_en> accessed 14 April 2020.

⁶³⁷ Ezroj (n 18) 72.

⁶³⁸ Sands, Peel et al (n 197) 300.

prevent dangerous anthropogenic interference with the climate system".⁶³⁹ This was to be achieved in a timely manner so as to hamper any threats to food production while also maintaining continuous economic development in a sustainable manner.⁶⁴⁰ The Convention does not specify what 'dangerous anthropocentric interference' means or quantify what will be considered as a stable level of greenhouse gases in the atmosphere.

The vague wording of the Convention, arguably, serves as one of the signs of the ripple effects of the earlier negotiations wherein the different groups did not particularly settle on a clear direction for the new global climate change governance regime. Benoit Mayer⁶⁴¹ agrees with this view by stating the 'ultimate objective' shows there was a general understanding of the threat of climate change. He adds that there was an unwillingness to out rightly state, in clear terms, the actions to be adopted in combating climate change.⁶⁴²

The assumption can therefore be made that the ambiguity in the wordings of the objective comes as a result of the Convention being a document set up to appease. The Convention tried to acknowledge the interests of those who sought an environmental sustainability stance to climate change governance while also not alienating those who prioritized economic growth.

The 'ultimate objective' of the UNFCCC also emphasizes the need to develop climate adaptation. ⁶⁴³ This flowed in line with the fears of Small Island and developing countries who believed, due to their low economic status and geographical position, they potentially stood the risk of being the most affected by climate change.

The Convention goes on to define the 'adverse effects of climate change' as negative effects to the ecosystem, socio-economic system, human health and welfare resulting from climate

⁶³⁹ UNFCCC Art. 2.

⁶⁴⁰ ibid.

⁶⁴¹ Mayer (n 72) 36.

⁶⁴² ibid.

⁶⁴³ UNFCCC 1992 Art. 2.

change.⁶⁴⁴ It is worth pointing out that the Convention also sought to define what climate change is about by stating it is "*a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere*..."⁶⁴⁵ The whole Convention builds on this definition of climate change to propose different guiding principles to enable global climate change governance in terms of climate adaptation and mitigation.⁶⁴⁶

4.3.2.2 Guiding Principles of the UNFCCC

Apart from setting out the 'ultimate objective' and direction to be adopted in global climate change governance, the UNFCCC also sets out some guiding principles States, party to the Convention were expected to adhere to. These guiding principles were set out with the aim of influencing how States approached global climate change governance. Article 3 of the UNFCCC, aptly titled 'principles', is where these guiding principles are stated.

Within the first paragraph of this Article, the Convention proposes that parties are to act *"equitably"* and in line with *"their common but differentiated responsibilities and respective capabilities"* when taking steps to govern climate change so as to safeguard present and future generations of the human population.⁶⁴⁷ The first principle drawn from this part of the Convention is the principle of *Common but Differentiated Responsibility and Respective Capabilities*.

This principle notes that, even though all States within the global community have a common responsibility to combat climate change and reduce the level of global emissions, the capacity of States to do so must not be neglected.⁶⁴⁸ Simply put, a developing country like Nigeria and

⁶⁴⁴ UNFCCC 1992 Art. 1(1).

⁶⁴⁵ UNFCCC 1992 Art. 1(2).

⁶⁴⁶ Sands, Peel et al (n 197) 301-302.

⁶⁴⁷ UNFCCC 1992 Art. 3(1).

⁶⁴⁸ Nadia Von Bassewitz, 'International Climate Change Policy: Where do we Stand?' in Oliver C. Ruppel, Christian Roschmann et al (eds), *Climate Change International and Global Governance: Volume II Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft 2013) 104.

a developed country like the UK, should both view climate change as a common problem. The realistic difference in the economic and institutional position between both countries would mean Nigeria should not be expected to govern climate change at the same level or intensity as the UK.

The Convention admonishes developed countries to take the lead in global climate change governance while also acknowledging the economic limitations and vulnerabilities of developing countries to the adverse effects of climate change.⁶⁴⁹ Authors like Abeysinghe and Arias⁶⁵⁰ have gone on to break this principle into two elements.

The first element is the commonality of the task of the global community which is to ensure adequate governance of climate change in line with safeguarding the human race.⁶⁵¹ This element can be said to exemplify the growing new interpretation of the anthropocentric position wherein the environment is sought to be protected and the climate is governed out of the selfish drive to attain human preservation.

The second element opined by Abeysinghe and Arias⁶⁵² is that States have different responsibilities in the governance of climate change. They believe different States have different governance responsibilities based on their past contributions to the degrading of the environment and their present capacity to progressively govern climate change.⁶⁵³ This means that developed countries, who have historically benefited from the emission of greenhouse gases, would have a higher responsibility of combating climate change in comparison to their developing country counterparts.

⁶⁴⁹ UNFCCC 1992 Art. 3(2).

⁶⁵⁰ Achala C. Abeysinghe and Gilberto Arias, 'CBDR as a Principle of Inspiring Actions rather than Justifying Inaction in the Global Climate Change Regime' in Oliver C. Ruppel, Christian Roschmann et al (eds), *Climate Change International and Global Governance: Volume II Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft 2013) 236.

⁶⁵¹ ibid. ⁶⁵² ibid 237.

⁶⁵² 1010 23

⁶⁵³ ibid.

Maintaining the Nigeria and UK comparison, a country like the UK would be expected to take on more responsibilities of combating climate change than a country like Nigeria. This is as a result of the UK's historical emissions and the country's high level of economic development. Both factors are lacking in Nigeria. Betsill⁶⁵⁴ agrees with this position and believes the use of the principle is justified due to the extreme anthropocentric focused mind-set of the developed countries which fuelled their development but negatively resulted in a huge amount of historical emissions.

She believes countries like the UK are amongst the richest and most developed countries in the world, making them the ideal candidates to take the lead in the global governance of climate change.⁶⁵⁵ It should, however, be noted that the Common but Differentiated Responsibilities and Respective Capacities principle was and is still being opposed to by the US who believes any notion of historical responsibilities should be dropped.⁶⁵⁶ The US also considers the principle to be unfair because they feel it places too much burden on them while leaving countries, who are not labelled as developed countries but emit considerable amount of greenhouse gases, to have little to no obligations.⁶⁵⁷

Developing countries like Nigeria, on the other hand, sought to prioritize this principle, starting from the negotiations leading to the creation of the UNFCCC and largely till date. Most of these developing countries argued that a large part of their history was under colonial rule making their governments relatively young in comparison to their developed county counterparts.⁶⁵⁸

⁶⁵⁴ Betsill (n 411) 118.

⁶⁵⁵ ibid.

⁶⁵⁶ Mayer (n 72) 36.

⁶⁵⁷ Betsill (n 411) 118.

⁶⁵⁸ Michael Ogbeidi, 'Political Leadership and Corruption in Nigeria Since 1960: A Socio-economic Analysis' (2012) 1(2) Journal of Nigerian Studies 3.

They believe the developed countries have had centuries of time to develop largely unaffected while emitting large amounts of greenhouse gases. The argument can be made by these developing countries that since they did not partake and enjoy in the historical emissions of greenhouse gases, they should not be forced or expected to take on the responsibility of governing it. This argument can be closely linked to the next principle stated in the Convention, $Equity.^{659}$

The principle requires parties to the Convention to govern climate change guided and based on equity. There is however no clear interpretation in the Convention on what it means for the parties to act on the basis of equity. A possible reason for this lack of explanation could be traced to the diverse mind-sets of the negotiating parties as at the time the Convention was being created. For example, most developing country negotiating parties, would view the equity principle to mean developed countries will take the climate governance lead because of the historical benefits they enjoyed from past emissions.⁶⁶⁰

The developing countries also added that adhering to the equity principle would reduce the stress on their economies, enabling them build their economies and their capacity to safeguard against the adverse effects of climate change.⁶⁶¹ Some developed countries, spearheaded by the US and those in the Umbrella Group, viewed the equity principle in a totally different way. They viewed the principle as a requirement for them to take the lead solely due to their financial capabilities and nothing to do with historical emission contributions.⁶⁶²

The impasse associated with the interpretation of what it means to be equitable in global climate change governance was aptly summed up by Werner Scholtz⁶⁶³. He states that the wealthier

⁶⁵⁹ UNFCCC 1992 Art. 3(1).

⁶⁶⁰ Betsill (n 411) 118.

⁶⁶¹ ibid.

⁶⁶² Mayer (n 72) 37.

⁶⁶³ Werner Scholtz, 'Equity as the Basis for a Future International Climate Change Agreement: Between Pragmatic Panacea and Idealistic Impediment. The Optimisation of the CBDR Principle via Realism' (2009) 42(2) The Comparative and International Law Journal of Southern Africa 170.

nations may take the principle to mean a call for intergenerational action to safeguard the interest of future generations while the poorer nations see equity as an avenue to ensure all nations are given the ability to develop and enhance their capacity to meet the basic needs of their present generation of people.⁶⁶⁴

Just like the earlier principle, of Common but Differentiated Responsibilities and Respective Capacities, the adding of Equity to the governance of climate change has also been a source of friction amongst parties. Ruchi Anand⁶⁶⁵ states that countries will be less willing to participate in climate change governance if they feel it is unfair or unjust. This unwillingness can be argued to have played out subsequently after the UNFCCC came into force and even to this present day with the present US President, Donald Trump, using similar reasons as the grounds for pulling the US from the climate change governance arena. The interplay of the first two principles will be discussed in more detail in the next chapter when highlighting the North - South dichotomy in the governance of climate change.

The next principle highlighted in the UNFCCC is the *Precautionary* principle. The UNFCCC states that *"the Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects"*.⁶⁶⁶ The principle further admonishes parties to never use the absence or limited scientific understanding of the climate change problem as an excuse to avoid taking action to govern the growing problem of climate change.⁶⁶⁷

Another principle found in the UNFCCC is the principle of *Cost-effectiveness*.⁶⁶⁸ This principle stipulates that measures and policy actions introduced to adapt or mitigate against the problem

⁶⁶⁴ Ibid.

⁶⁶⁵ Ruchi Anand, *International Environmental Justice: A North-South Dimension* (1st edn, Routledge 2004) 55. ⁶⁶⁶ UNFCCC 1992 Art. 3(3).

⁶⁶⁷ ibid.

⁶⁶⁸ ibid.

of climate change should aim to balance the cost with the benefit.⁶⁶⁹ The measures adopted must take into cognizance the various socio-economic positions of the different States while also aiming to attain *"global benefits at the lowest possible cost"*.⁶⁷⁰

The Convention, in line with the cost-effective principle, informs parties to recognize measures that are economically justifiable in addressing the issue of climate change which can also possibly be adopted to address other environmental problems.⁶⁷¹ This goes in line with the earlier stated climate change governance mechanism which Hilson⁶⁷² referred to as 'crowding in' wherein climate change initiatives are developed in such a way that helps battle other environmental issues.⁶⁷³

Another principle found in the UNFCCC is the principle of *Sustainable Development*.⁶⁷⁴ The Convention states that all "*parties have a right to, and should, promote sustainable development*".⁶⁷⁵ The Convention focuses on economic development when developing measures to protect the climate system.⁶⁷⁶ The focus of the sustainable development principle, being the economic pillar, was very important to the developing countries, especially the G-77 and China negotiating bloc, who set out to ensure their economic positions were not jeopardized.⁶⁷⁷

This shows a strong leaning, especially by the developing countries, to the old interpretation of the anthropocentric outlook in climate change governance. This meant prioritizing economic

⁶⁶⁹ Betsill (n 411) 118.

⁶⁷⁰ UNFCCC 1992 Art. 3(3).

⁶⁷¹ Preamble of UNFCCC 1992, Paragraph 16 – 17.

⁶⁷² Hilson (n 475) 361.

⁶⁷³ See section 3.3.1 of this thesis.

⁶⁷⁴ UNFCCC 1992 Art. 3(4).

⁶⁷⁵ ibid.

⁶⁷⁶ ibid.

⁶⁷⁷ Betsill (n 411) 118.

development while also focusing on climate change governance. Such a juxtaposition could be said to have contributed to the largely ambiguous wording of the Convention.

The final principle worth highlighting in the UNFCCC calls for the maintenance of a supportive international economic system which promotes sustainable economic growth for all parties, especially developing countries, so as to enable them increase their capacity to combat the climate change problem.⁶⁷⁸ The UNFCCC further states that actions taken in view of combating climate change should not lead to discriminatory or unjustifiably disguised restrictions to international trade.⁶⁷⁹

4.3.2.3 National Commitments under the UNFCCC

Flowing on from the ultimate objective of the UNFCCC, and being guided by the different stated principles, the Convention sets out steps and requirements parties were to adhere to in their governance of climate change. Notably, the principle of Common but Differentiated Responsibilities and Respective Capacities, served as the foundational principle upon which the commitments expected of the parties to the Convention, was built on. This was signified by the Convention grouping parties into Annex I and non-Annex I countries, for the purpose of governance obligations.⁶⁸⁰ The Convention states a list of Annex I countries consisting of developed country parties.

There was no stated list of non-Annex I countries but the assumption can be made that this consists of developing or less developed countries.⁶⁸¹ For example, countries like the UK and the US were mentioned under the list of Annex I countries. Countries like Nigeria and Kenya were left out of the list meaning they fell under the non-Annex I list of countries. The grouping

⁶⁷⁸ UNFCCC 1992 Art. 3(5).

⁶⁷⁹ ibid.

⁶⁸⁰ UNFCCC 1992 Art. 4(2).

⁶⁸¹ Peel (n 485) 928.

of the less institutionally and economically capable countries from those more developed, went in line with maintaining the principle of Common but Differentiated Responsibilities and Respective Capacities throughout the Convention.

The Convention however maintains that this grouping did not absolve the non-Annex I countries from governance responsibilities, but maintains that all parties were expected to partake in climate change governance based on their varying capacities. The UNFCCC required all parties to commit to developing *"national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol"*.⁶⁸² They were also required to develop and update national and regional measures to mitigate and adapt to climate change.⁶⁸³

The Convention also called on parties, in addition to taking national action, to cooperate with each other in developing, sharing technology, applying and diffusing measures that will facilitate the reduction and prevention of anthropogenic greenhouse gas emissions in all relevant sectors of society.⁶⁸⁴ The cooperation amongst parties, was aimed at promoting sustainable management⁶⁸⁵ and increasing adaptive measures towards attaining effective global governance.⁶⁸⁶

Parties were also directed to, as feasibly as possible, consider climate change in their national and global policy decisions. They were to do this while promoting and cooperating on new scientific research, exchanging new strategies and ensuring increased public awareness of the climate change problem.⁶⁸⁷ Parties were also required to send periodic updates, regarding

⁶⁸² UNFCCC 1992 Art. 4(1)(a).

⁶⁸³ UNFCCC 1992 Art. 4(1)(b). ⁶⁸⁴ UNFCCC 1992 Art. 4(1)(c).

⁶⁸⁵ UNFCCC 1992 Art. 4(1)(d).

^{6%} LD FCCC 1992 Alt. 4(1)(d).

⁶⁸⁶ UNFCCC 1992 Art. 4(1)(e).

⁶⁸⁷ UNFCCC 1992 Art. 4(1)(f-i).

implementation of mitigation and adaptation measures, to an institution established by the UNFCCC called the Conference of the Parties (COP).⁶⁸⁸

The UNFCCC, following on with the principle of Common but Differentiated Responsibilities and Respective Capacities, goes on to specify that the Annex I countries were expected to take the global lead in climate change governance. These developed countries were expected to actively reduce the amount of greenhouse gases they emit and increase their greenhouse gas sinks and reservoirs.⁶⁸⁹ Sinks were defined in the Convention as mechanisms or activities which aid the removal of greenhouse gases from the atmosphere while reservoirs are components of the climate system where greenhouse gases are stored.⁶⁹⁰

These Annex I listed countries were required to adopt measures that will reduce the level of greenhouse gases in the atmosphere to the level they were in the year 1990 while constantly communicating with the COP in accordance with Article 12.⁶⁹¹ On the other hand, the non-Annex I countries had no specified commitments. This meant that countries like Nigeria had no specific obligations or targets in view of global climate change governance.

The Convention goes further to list some countries as Annex II parties. These Annex II countries consisted of a few Annex I countries specified by the Convention to play a global leadership role. They were to assist in providing financial and technological assistance to developing and vulnerable countries in view of enabling them adapt and mitigate against the threats of climate change.⁶⁹² The Convention adds that developing countries were to be allowed some flexibility to develop their economies noting that their potential of successfully partaking

⁶⁸⁸ UNFCCC 1992 Art. 4(1)(j).

⁶⁸⁹ UNFCCC 1992 Art. 4(2)(a).

⁶⁹⁰ UNFCCC 1992 Art. 1(7-8).

⁶⁹¹ UNFCCC 1992 Art. 4(2)(b).

⁶⁹² UNFCCC 1992 Art. 4(3-5).

in the governance of climate change was dependent on the level of assistance they received from the developed countries.⁶⁹³

Even though the Convention places greater responsibility on Annex I and Annex II listed countries, there was still an expectation, though very limited, of the non-Annex I developing countries to govern climate change to the best of their abilities. The governance process and measures, by all the parties, was required to be periodically reported to the COP.⁶⁹⁴

4.3.2.4 Institutional Structures Established by the UNFCCC

As a way of enabling parties achieve the commitments stipulated and agreed to under the Convention in line with ensuring the actualization of the 'ultimate objective', the UNFCCC established different institutions. These institutions ranged from: the COP; a secretariat; subsidiary bodies; and a financial mechanism. The COP was established to serve as the central body of the Convention consisting of a representative of all the parties to the Convention.⁶⁹⁵

The COP is saddled with the responsibility of: undergoing regular reviews of the obligations of parties; promoting information sharing amongst parties; guide parties when needed; and to generally ensure the tenets of the Convention are adhered to.⁶⁹⁶ The COP is required to meet annually to review and update the measures taken to ensure the protection of the climate system.⁶⁹⁷

The Convention also established a secretariat. The secretariat was given the responsibility of: setting up meeting sessions for the COP and other subsidiary bodies; prepare and compile reports relating to the activities of the COP; assist parties when necessary; and coordinate with

⁶⁹³ UNFCCC 1992 Art. 4(6-7).

⁶⁹⁴ UNFCCC 1992 Art. 12.

⁶⁹⁵ Mayer (n 72) 38.

⁶⁹⁶ UNFCCC 1992 Art. 7 (1).

⁶⁹⁷ UNFCCC 1992 Art. 7 (3).

relevant international bodies.⁶⁹⁸ The UNFCCC also established different subsidiary bodies to assist the COP in achieving its functions.

One of such bodies was a subsidiary body for science and technology which served as a multidisciplinary body providing scientific and technological knowledge, and assistance to the parties to the Convention.⁶⁹⁹ Another body established under the Convention was the subsidiary body for implementation which was set up to aid the COP in analysing the information gotten from parties in line with their commitments stated in Article 4 as required in Article 12. This analysis was to assist the COP in its decision and implementation processes.⁷⁰⁰

4.3.3 Perceived Reception of the UNFCCC

The UNFCCC has been credited for birthing the global legal governance specifically to combat climate change. It signified the first time the non-scientific world took a meaningful stance in climate change governance. The level of State and non-State participation in the negotiations of the UNFCCC and the eventual amount of UN and non-UN countries that ratified the Convention, can be hailed as a testament of the willingness of the global community to combat the growing issue of climate change.⁷⁰¹ This prompted Chitzi Ogbumgbada⁷⁰² to refer to the UNFCCC as an umbrella treaty wherein all other climate change governance steps have stemmed from.

As expected of new innovations, procedures and laws, this new international framework established to combat climate change was far from perfect. The flaws of the UNFCCC centred on the level of commitment the parties were willing to agree too. There was the underlying resistance on the part of a large number of States to accept and create a framework that heavily

⁶⁹⁸ UNFCCC 1992 Art. 8.

⁶⁹⁹ UNFCCC 1992 Art. 9.

⁷⁰⁰ UNFCCC 1992 Art. 10.

⁷⁰¹ Ezroj (n 18) 72.

⁷⁰² Ogbumgbada (n 20) 320.

subscribed to an environmental sustainability approach. This affected how the framework was eventually drafted making it look like an initiative aiming not to offend but rather cater for the various wishes of the different negotiating blocs. The result of this was a set of rules showing potential but wrapped up in ambiguity.

A good example of this can be seen with the ultimate objective of the Convention which states the need to combat climate change and stabilize the level of greenhouse gases in the atmosphere.⁷⁰³ The Convention however fails to specify what will be considered an adequate level or the time frame by which this will be achieved. Betsill⁷⁰⁴ associates this ambiguity to the discord amongst the parties during the negotiations. She believes the lack of uniformity, as to the direction of the Convention, resulted in an absence of clarity.⁷⁰⁵

Mayer⁷⁰⁶ agrees with this reasoning stating that the lack of uniform interests amongst the parties, led to the absence of clear language and an avoidance of timelines in the Convention. He commends the level of State participation during the negotiation, creation and eventual ratification of the UNFCCC.⁷⁰⁷ He however believes the effectiveness of the Convention was greatly softened due to a lack of specificity.⁷⁰⁸ He adds that the diverse expectations of States, during the negotiations, on how the global governance of climate change was to be formulated, led to the Convention being relatively ambiguous.⁷⁰⁹

The diversity in expectation and direction of the UNFCCC was mainly between the developed and the developing countries. This was centred on the level of development of developing countries and the historical emissions of developed countries. The UNFCCC tried to address this through the Common but Differentiated Responsibilities and Respective Capacities

⁷⁰⁹ ibid.

⁷⁰³ UNFCCC 1992 Art. 2.

⁷⁰⁴ Betsill (n 411) 117.

⁷⁰⁵ ibid.

⁷⁰⁶ Mayer (n 72) 36.

⁷⁰⁷ ibid.

⁷⁰⁸ ibid.

principle, requiring more responsibilities from developed countries and limited action from developing countries.⁷¹⁰

There is however still a sense that these underlying issues were not fully dealt with. For example, most developed countries were against defining the principle in line with historical emissions as a reason for them to take increased action in climate change governance.⁷¹¹ Developing countries, on the other hand, wanted the principle to be interpreted in a way that ensured they avoided taking on any responsibility while making developed countries carry most of the responsibility, due to their historical emissions and present economic levels of development.⁷¹²

Even after the UNFCCC came into force and was ratified by a majority of States, there was a sense amongst developing countries that they should not be expected to partake in the governance of climate change. Lee Godden⁷¹³ captures this by stating that most developing countries viewed any form of requirement on them to participate in global climate change governance, as possibly a new form of *"environmental colonialism"*⁷¹⁴ set out to stifle their search for economic growth. The result of this unresolved position was developing countries like Nigeria, who were parties to the Convention, took little to no action in reducing their level of greenhouse gas emissions.⁷¹⁵

Apart from the issue of ambiguity, the Convention also faced resistance from those who were against changing the status quo. Business groups, especially oil lobbyist, resisted any form of

⁷¹⁰ UNFCCC 1992 Art. 4.

⁷¹¹ Harriet Bulkeley, 'Governing Climate Change: the Politics of Risk Society?' (2001) 26 Transactions of the Institute of British Geographers 430.

⁷¹² ibid 435.

⁷¹³ Godden (n 589) 557.

⁷¹⁴ ibid 559.

⁷¹⁵ Christiana Omorede, 'Assessment of the Impacts of Oil and Gas Resource Exploration on the Environment of Selected Communities in Delta State, Nigeria' (2014) 3(2) International Journal of Management, Economics and Social Sciences 84 – 85.

change to the way they did business.⁷¹⁶ There was also a general sense of non-compliance from other public sectors around the world.⁷¹⁷ This was not helped by the little knowledge people had on climate change and the ambiguity of the objective stated in the UNFCCC.⁷¹⁸

It will however be wrong to conclude that there was a total noncompliance of the Convention. Some Annex I States made attempts to follow the tenets of the Convention which required them to periodically submit, to the COP, steps they take to combat climate change.⁷¹⁹ The content of the reports relating to their climate change steps have however come under criticism for being subpar and often times not very useful.⁷²⁰ Peel⁷²¹ believes this is largely due to the ambiguity and lack of specificity of the Convention which created the avenue for States to act in a subpar way in governing climate change.

The lack of coherence, well-defined objectives and clear commitments of the UNFCCC, in the face of growing scientific complaints on the danger of climate change, led to increased call for a review of the Convention.⁷²² There was a growing recognition that a more hard line approach was needed for effective global climate change governance.

In the first COP (also called COP 1) held in Berlin between the 28th of March and the 7th of April 1995, parties decided to negotiate the formation of "*a protocol or another legal instrument*"⁷²³ aimed at addressing all the shortcomings of the 1992 Convention. The COP 1, or Berlin Mandate, began the negotiations and eventual adoption of the next climate change instrument known as the Kyoto Protocol.

⁷¹⁶ Gupta (n 609) 39.

⁷¹⁷ ibid.

⁷¹⁸ ibid.

⁷¹⁹ UNFCCC 1992 Art. 12.

⁷²⁰ Betsill (n 411) 118-119.

⁷²¹ Peel (n 485) 929.

⁷²² Godden (n 589) 559.

⁷²³ United Nations Framework Convention on Climate Change, Report of the Conference of Parties First Session (1995) FCCC/CP/1995/7. Hereinafter stated as Decision CP.1 1992.

4.4 The Kyoto Protocol

4.4.1 Negotiating the Kyoto Protocol

In the run up to the first COP session, there was growing dissatisfaction with the ambiguity of the tenets of the 1992 Convention. Some countries, spearheaded mainly by the EU countries, felt the UNFCCC was not going to guarantee the effective global governance of the climate change problem.⁷²⁴ They pushed for the adoption of a more environmental sustainability approach to climate governance which included countries signing on to binding targets and timelines.⁷²⁵

This view was not unilaterally shared with countries like the USA wishing to introduce the use of flexible economic options, which could allow them meet their climate governance obligations through economic action.⁷²⁶ One of such economic options put forward was the Joint Implementation initiative.⁷²⁷ This initiative would enable developed countries meet their greenhouse emission targets through climate friendly projects and development initiatives, carried out anywhere in the world.⁷²⁸ The possibility of experimenting with this initiative was one of the main discussion points of the COP 1. Another main point of discussion at the conference surrounded the push for an increased environmental sustainability approach to global climate change governance.

By the end of the COP 1, parties documented their agreements, which has popularly been referred to as the 'Berlin Mandate'. One of the decisions stated in the Belin Mandate was the agreement by parties to classify the commitments found in Article 4(2) (a) and (b) of the 1992

⁷²⁴ Gupta (n 609) 40.

⁷²⁵ ibid.

⁷²⁶ ibid.

⁷²⁷ ibid.

⁷²⁸ ibid.

Convention, for Annex I States, as ineffective and needing to be reviewed.⁷²⁹ The review was to be done by setting "quantified limitation and reduction objectives within specified time-frames, such as 2005, 2010 and 2020, for their anthropocentric emissions by sources and removals by sinks of greenhouse gases..."⁷³⁰

Parties also decided against creating new commitments for non-Annex I parties but reiterated the commonality of the climate change problem and encouraged all States to take climate friendly action.⁷³¹ Not all States, for example the US, were happy with this decision. They felt developing countries were trending in the direction of being high emitters without having any climate change responsibility while developed countries were still expected to take the lead in climate change governance.⁷³²

Despite the initial unhappiness showed by some developed countries on the non-introduction of commitments for the non-Annex I countries, States decided to negotiate and address the issues highlighted in the Berlin Mandate. These negotiations spanned two years with the difference in commitments between developed and developing countries being a constant discussion point.⁷³³ At the end of two years of intense negotiations, parties agreed on a new global governance instrument on climate change. This new document was to serve as an upgrade to the 1992 Convention and was adopted during the third COP session held in Kyoto, Japan in December 1997.⁷³⁴ The new document was to be seen as a protocol and an update of the UNFCCC.

This new document, popular referred to as the Kyoto Protocol, followed the principles found in the 1992 Convention but introduced specific targets and time frames for Annex I countries.⁷³⁵

⁷²⁹ Decision 1/CP.1 1992.

⁷³⁰ ibid para. 2(a).

⁷³¹ ibid para. 2(b).

⁷³² Gupta (n 609) 41.

⁷³³ Sands, Peel et al (n 197) 308.

⁷³⁴ Mayer (n 72) 39.

⁷³⁵ Kyoto Protocol 1997 Art. 3.

Non-Annex I countries were still excluded from any form of direct climate change governance commitments. The creation of this 'upgraded' version of the 1992 Convention, showed a gradual acceptance of the global need to adopt an environmental sustainability approach to climate change governance. The elements of the Kyoto Protocol are discussed next.

4.4.2 Elements of the Kyoto Protocol

The Kyoto Protocol was remarked for being the signal of the growing global awareness of the need for an environmental sustainability approach to the global governance of climate change. This was showcased by the introduction of specific greenhouse gas emission reduction targets and timelines, albeit specifically for Annex I countries. The Protocol also introduced a range of mechanisms to help countries meet their global governance commitments.⁷³⁶ It is important to note here that the Protocol maintains the classification of countries introduced in the 1992 Convention.

The Protocol however goes further by adding a list of countries under Annex B, which consists of Annex I listed countries under the 1992 Convention, excluding Belarus and Turkey, and their qualified emission limitation and reduction commitments.⁷³⁷ To fully grasp the impact of the Kyoto Protocol, an understanding is needed of the new commitments laid out and the flexible mechanisms introduced in the Protocol.

4.4.2.1 National Commitments under the Kyoto Protocol

The introductory paragraphs of the Kyoto Protocol imprints the stance of this new legal document as a follow up to the 1992 Convention. The focus of the Protocol was to aid the achievement of the 'ultimate objective' of the Convention.⁷³⁸ This was aimed at stabilizing the

⁷³⁶ Ezroj (n 18) 73.

⁷³⁷ Kyoto Protocol 1997 Annex B.

⁷³⁸ Kyoto Protocol 1997 para. 3.

level of greenhouse gases in the atmosphere and ensuring sustainable growth is maintained within a time frame adequate for the ecosystem to adapt.⁷³⁹ The Protocol maintained that this was to be done based on the principles stated in the Convention.⁷⁴⁰

One of such principles seen playing out in the Kyoto Protocol was the principle of Common but Differentiated Responsibilities and Respective Capacities. This principle was seen with the Kyoto Protocol setting out specific policies and measures for the Annex I parties to adhere to in line with them continuing to take the lead in global climate change governance.⁷⁴¹ The Protocol adds that these policies and measures, were to take into cognisance the specific circumstances of each Annex I country.⁷⁴²

It is worth pointing out that the eventual flexible position taken by the Kyoto Protocol was not in line with the position pushed forward by the EU countries during the negotiations leading to adoption of the Protocol. The EU countries had pushed for an environmental sustainability approach wherein all Annex I parties would have a universally mandatory set of commitments and timelines.⁷⁴³

This was, however, resisted by some Annex I States, spearheaded by the US, Canada and Australia, who professed for an outlook which was not mandatory or universal but rather based on the individuality of parties.⁷⁴⁴ The latter group prevailed with the Protocol acknowledging the different national circumstances of Annex I parties.⁷⁴⁵ The Protocol also instructed Parties to cooperate and share information so as to allow for all round effectiveness.⁷⁴⁶

⁷³⁹ ibid.

⁷⁴⁰ Kyoto Protocol 1997 para. 5.

⁷⁴¹ Kyoto Protocol 1997 Art. 2 (1) (a).

⁷⁴² ibid.

⁷⁴³ Sands, Peel et al (n 197) 309.

⁷⁴⁴ ibid.

⁷⁴⁵ Kyoto Protocol 1997 Art. 2 (1) (b).

⁷⁴⁶ ibid.

The Protocol further introduced and highlighted six greenhouse gases, under Annex A, which Annex I parties were admonished to be mindful of. These gases are: Carbon dioxide, Methane, Nitrous oxide, Hydrofluorocarbons, Perfluorocarbons and Sulphur hexafluoride. In addition to this, Annex A also lists out some sectors that have historically contributed to high greenhouse gas emissions which States are to be mindful of.

The sectors listed were the: energy; industrial processes; agriculture; and waste.⁷⁴⁷ The act of listing the greenhouse gases and the main emitting sectors in the Kyoto Protocol, was a novel step in global climate change governance. It ensured all parties, not only Annex I parties, were made aware of the gases and sectors negatively contributing to the global climate change problem. Such an understanding educated countries on where to focus their governance actions on.

The Protocol also states that parties were not to *"exceed their assigned amounts, calculated pursuant to their qualified emission limitation and reduction commitments inscribed in Annex B"*.⁷⁴⁸ The qualified emission limitation and reduction commitment, quantified in percentage, is the amount each State agrees to decrease her level of greenhouse emissions by, including the level it aims to confine its future overall emissions by.⁷⁴⁹

The Protocol aimed to achieve a reduction of the greenhouse gases by each Annex I party, listed under Annex B in the Protocol, by at least Five percent (5%) of the level it was in 1990 within a commitment period between 2008 and 2012.⁷⁵⁰ This signified a move from the position under the 1992 Convention where there were no specific timelines or individually stated commitments for the Annex I States.

⁷⁴⁷ Kyoto Protocol 1997 Annex A.

⁷⁴⁸ Kyoto Protocol 1997 Art. 3 (1).

⁷⁴⁹ Mayer (n 72) 40.

⁷⁵⁰ Kyoto Protocol 1997 Art. 3 (1).

This could also be said to showcase some level of adoption of an environmental sustainability approach to the global governance on climate change, to another meaningful level. Mayer⁷⁵¹ agrees with this assertion and opines that the commitments found in Article 4(1) and 4(2) of the 1992 Convention, were geared towards establishing an "obligation of conduct". He believes the introduction of specific timelines and targets, in the commitments found in Article 3(1) of the Protocol, ensured a stirring of the global governance on climate change towards an "obligation of results".⁷⁵²

It is worth adding that this new result oriented mode of commitments, took into consideration the different circumstances of States, especially in terms of the level of energy consumed and the country's ability to develop cleaner sources of energy.⁷⁵³ For example, the member countries within the EU, all agreed to set an emission limitation target of Ninety-two percent (92%) of the 1990 level. This was the equivalent of a reduction of the amount of greenhouse gases being emitted, by Eight percent (8%), by the 2008 to 2012 commitment period.⁷⁵⁴ The US agreed to limit emissions by Ninety-three percent (93%) which was a Seven percent (7%) reduction.⁷⁵⁵

The Protocol also allowed some countries listed under Annex B, which were already low emitters, the ability to increase their level of emissions to a certain level. Australia and Iceland were allowed to limit emissions by One hundred and eight percent (108%) and One hundred and ten percent (110%) respectively, which was equivalent to an increase of emissions by Eight (8%) and Ten percent (10%).⁷⁵⁶ The Protocol goes on to state that all Annex I parties, who were also listed under Annex B, were required to show considerable progress, in line with

⁷⁵³ Sands, Peel et al (n 197) 309.

⁷⁵¹ Mayer (n 72) 40.

⁷⁵² ibid.

⁷⁵⁴ Kyoto Protocol 1997 Annex B.

⁷⁵⁵ ibid.

⁷⁵⁶ ibid.
achieving the agreed commitments, by 2005.⁷⁵⁷ Some scholars have however criticized the variation in targets amongst these Annex B listed countries.

Betsill⁷⁵⁸ believes most of these countries set their national targets based largely on political motivations rather than setting more ambitious targets in line with scientific findings. Parties negotiated for the easiest possible commitments, rather than choosing to take on the task of reducing higher emissions, due to the fear of disrupting their economic status.⁷⁵⁹ The narrowness of the ambition of parties, coupled with maintaining a custom of requiring little to no commitments from non-Annex I parties, led to an increase in the amount of greenhouse gases emitted into the atmosphere, as at the end of the commitment period.⁷⁶⁰

This was despite the fact that majority of the Annex B listed countries adhered to the different targets and commitments agreed to and listed in the Protocol.⁷⁶¹ The global cut in emissions by about Sixteen percent (16%) in the first commitment period, as at 2008, was however dwarfed by a Fifty percent (50%) rise in global emissions within the same period. This was largely due to increased emissions from developing countries and non-adherence from some developed countries.⁷⁶² For example, countries like: Nigeria; China; India; and Brazil; all non-Annex I or Annex B listed countries, were noted to have had high levels of emissions during this period.⁷⁶³

Nigeria's economy, by the end of the first commitment period, grew to be largely reliant on oil and gas production with the sector supplying Ninety percent (90%) of the country's Gross National Product (GNP).⁷⁶⁴ This was despite the fact the Kyoto Protocol specifically highlighted the energy sector, which includes oil and gas, as one of the main sectors negatively

⁷⁵⁷ Kyoto Protocol 1997 Art. 3 (2).

⁷⁵⁸ Betsill (n 411) 120.

⁷⁵⁹ Efevwerhan (n 153) 10.

⁷⁶⁰ Schiermeier (n 21) 656.

⁷⁶¹ ibid.

⁷⁶² ibid.

⁷⁶³ B. C. Anwadike, 'Kyoto Protocol and the Challenges of Implementation in Nigeria' (2017) 13(1) Journal of Geography, Environment and Earth Science International 3.

⁷⁶⁴ Efevwerhan (n 153) 10.

impacting the rate of climate change.⁷⁶⁵ The case of Nigeria exemplifies how most developing countries gravitated towards high greenhouse gas emitting sectors in view of attaining development due to a lack of specific commitments under the Kyoto Protocol.⁷⁶⁶

The conclusion can therefore be made that the negotiation and eventual creation of the commitments resulted in 'taking a step forward and two steps backwards' in successful climate change governance. This is because the newly introduced commitments, for a few countries, was a commendable step in the right direction. However, maintaining a status of non-creation of commitments for non-Annex I countries coupled with some Annex B countries not adhering to their agreed commitments, could be said to have regressed the progress made in the global governance of climate change. This was seen with the increase in the level of greenhouse gas emissions at the time.

4.4.2.2 Flexible Mechanisms under the Kyoto Protocol

Apart from the creation of commitments containing specific timelines and targets, the adoption of flexible mechanisms was another global governance innovation introduced under the Kyoto Protocol. Agreeing to the inclusion of flexible economic mechanisms to global climate change governance was, however, not straightforward. During the preceding negotiations, the EU countries subscribed to having all developed countries follow a stringent and blanket commitment system without flexible economic mechanisms.⁷⁶⁷

They believe the adoption of such a system, would potentially leave room for developed countries taking little to no action domestically, while paying or carrying out economically cheap climate friendly initiatives in other countries.⁷⁶⁸ This view was supported by most

⁷⁶⁵ Kyoto Protocol 1997 Annex A.

⁷⁶⁶ Kyoto Protocol 1997 Art. 10.

⁷⁶⁷ Betsill (n 411) 120.

⁷⁶⁸ ibid.

developed countries, especially the G-77 and China Group.⁷⁶⁹ The stance was also supported by international environment groups who saw the introduction of flexible mechanisms as a way of allowing developed countries abdicate their historical responsibility for global greenhouse emissions.⁷⁷⁰

The US on the other hand, supported by other members of the Umbrella Group, was very vocal in advocating for the inclusion of flexible economic mechanisms in the Kyoto Protocol.⁷⁷¹ After intense negotiations, the parties made a dying minute compromise, so as to get the US to agree to the Protocol, by adding in some flexible economic mechanisms to the Protocol, to aid developed parties meet their stated commitments.⁷⁷²

These mechanisms gave Annex B listed countries the ability to report climate change initiatives and outcomes, sponsored by them in other countries, as their own, in line with meeting their global governance commitments.⁷⁷³The mechanisms introduced by the Kyoto Protocol are: Joint Implementation, Clean Development Mechanism and Emissions Trading.

The Joint Implementation mechanism is such that it allows an Annex B country to collaborate with another Annex B country in acquiring or transferring projects which are aimed at reducing greenhouse gas emissions or promoting climate friendly actions, in line with meeting their commitments.⁷⁷⁴ Practically, this provision allows an Annex B country to receive emission reduction units for investing in projects carried out in another Annex B country to supplement its own domestic commitments.⁷⁷⁵

⁷⁶⁹ Sands, Peel et al (n 197) 310.

⁷⁷⁰ ibid.

⁷⁷¹ ibid.

⁷⁷² Betsill (n 411) 120-121.

⁷⁷³ Mayer (n 72) 40.

⁷⁷⁴ Kyoto Protocol 1997 Art. 6.

⁷⁷⁵ ibid.

It is worth highlighting here that, prior to the final creation of the Kyoto Protocol, the parties to CP 1, agreed to adopt a form of flexible mechanism to aid Annex I parties in meeting their Convention commitments.⁷⁷⁶ This mechanism, unlike the Joint Implementation mechanism, was not limited to Annex I parties but included and allowed collaboration with non-Annex I countries.⁷⁷⁷

The second mechanism introduced in the Kyoto Protocol is the Clean Development Mechanism (CDM).⁷⁷⁸ The CDM is slightly similar to the Joint Implementation mechanism but here the collaboration is between Annex I countries and those not listed as Annex I countries. The CDM allows Annex I countries, specifically those listed under Annex B, to meet their qualified emission limitation and reduction commitments when they invest in projects in non-Annex I countries.⁷⁷⁹ The projects or initiatives invested in must ensure the attainment of the ultimate objective stated in the 1992 Convention.⁷⁸⁰

The Annex B countries would receive a certificate, known as a certified emission reduction (CER), for projects that are viewed to progress the Convention's ultimate objective, in line with them meeting their Protocol commitments.⁷⁸¹ Non-Annex I countries, through the assisted climate friendly initiatives and projects, would also be able to partake in the global combating of climate change.⁷⁸²

The Protocol emphasized that any CDMs must be subject to the guidance of the COP and it must be borne out of the voluntary participation of all parties.⁷⁸³ The CDM must also be inherently beneficial, in the long run, to climate change mitigation for the non-Annex I

⁷⁷⁶ Decision 5/CP.1.

⁷⁷⁷ Mayer (n 72) 134-135.

⁷⁷⁸ Kyoto Protocol 1997 Art. 12 (1).

⁷⁷⁹ Kyoto Protocol 1997 Art. 12 (2).

⁷⁸⁰ ibid.

⁷⁸¹ Kyoto Protocol 1997 Art. 12 (3) (b).

⁷⁸² Kyoto Protocol 1997 Art. 12 (3) (a).

⁷⁸³ Kyoto Protocol 1997 Art. 12 (5).

country.⁷⁸⁴ Nigeria has been involved in some of these CDM projects with different Annex I countries ranging from hydropower rehabilitation projects to wooden stoves for fuel efficiency.⁷⁸⁵

The final mechanism is the Emissions Trading mechanism. The Emissions Trading mechanism enables Annex B listed countries, who have surpassed their qualified emission limitation and reduction commitments, the chance to trade the excess units to other Annex B listed countries who are yet to meet their own commitments.⁷⁸⁶ The Emissions Trading mechanism gives Annex B listed countries, struggling to meet their commitments, a cost effective way of doing so albeit through the assigned amount units of another Annex B listed country. An example of this is the EU Emission Trading System, established in 2005.⁷⁸⁷ It is the largest of its kind in the world and has aided EU member States meet Forty-five percent (45%) of their emission targets.⁷⁸⁸

4.4.3 Perceived Reception of the Kyoto Protocol

The creation and adoption of the Kyoto Protocol was not an easy one due to intense negotiations amongst the parties. Even after the Protocol was adopted in 1997, there were great concerns regarding the future of this new global legal initiative created to combat climate change and progress the maintenance of human preservation.⁷⁸⁹ The main sticking point was around the uncertainty of the stance of the US regarding their ratification of the Protocol.

The President of the US at the time, Bill Clinton, and his Vice, Albert Gore, most especially, were both very pro-environment and knew great commitments would be needed for climate

⁷⁸⁴ ibid.

⁷⁸⁵ A list of such CDM registered activities can be found on the UNFCCC

website:<https://cdm.unfccc.int/Projects/projsearch.html> accessed 10 July 2019.

⁷⁸⁶ Kyoto Protocol 1997 Art. 17.

⁷⁸⁷ See EU Emissions Trading System (EU ETS): https://ec.europa.eu/clima/policies/ets_en> accessed 10 July 2019.

⁷⁸⁸ ibid.

⁷⁸⁹ Schiermeier (n 21) 656.

change to be governed properly. President Clinton went on to sign the Kyoto Protocol on the 12th of November, 1998. However, the US Senate did not share the same sentiment.

It is important to note that for any international treaty to become domestic law within the US, two-third of the US Senate must vote in favour of making it a domestic law.⁷⁹⁰ This means the decisions of the US executive, during the negotiations, was still ultimately subject to the decision of the Senate before it could be ratified and binding on the US. This became a stumbling block for US participation in the Kyoto Protocol process and its general success.

Even before the final adoption of the Kyoto Protocol, two US Senators in June 1997, Senators Byrd and Hagel, proposed a resolution to the US Senate, which has been called the Byrd-Hagel Resolution.⁷⁹¹ The resolution stated that the US should not be a party to any legal initiative that had the potential to seriously affect the country's economy negatively. They followed this up by stating that if the legal initiatives releases the developing countries from any similar commitments, then the US will not be a party to it.⁷⁹²

The US Senate voted overwhelmingly in favour of the Byrd-Hagel Resolution on the 25th of July 1997. The US never ratified the Kyoto Protocol and eventually withdrew from all negotiations regarding the Protocol in 2001 under the newly elected presidency of George W. Bush.⁷⁹³ Bush echoed the Byrd-Hagel Resolution, stating that the Protocol was borderline unfair because it allowed countries like China and Nigeria to continue in a 'business as usual' fashion while expecting the US to commit to emission reduction targets that may harm the US economy.⁷⁹⁴

⁷⁹⁰ Constitution of the United States of America 1789 Art. II Section 2.

⁷⁹¹ Gupta (n 609) 41.

⁷⁹² ibid 42-43.

⁷⁹³ Betsill (n 411) 120.

⁷⁹⁴ Schiermeier (n 21) 656.

This act of defiance, by the US, was very significant because at the time the US was the largest emitter of greenhouse gases in the world and a non-participation by the US was feared could lead to the discouragement of other Annex I parties from ratifying the Kyoto Protocol.⁷⁹⁵ In order to safeguard the relevance of the Kyoto Protocol, the EU led negotiations amongst parties to find a way for all the other countries to move on without the US involvement.⁷⁹⁶

The negotiations culminated in a set of agreements which were formulated at the COP 7 held in Marrakesh, Morocco in 2001.⁷⁹⁷ The agreements, which are referred to as the Marrakesh Accords, served as further guidelines for Annex I parties on how they can achieve their commitments and also gave more clarity on how they could effectively utilize the different flexible mechanisms. The Accord was viewed as a huge success owing to the fact that almost all States, apart from the US, ratified the Protocol. It entered into force on February 16, 2005.⁷⁹⁸

Following on from the ratification of the Kyoto Protocol, many Annex B listed countries, as at the time of the first commitment period in 2008, were seen to have overachieved their climate change commitments.⁷⁹⁹ This can be attributed to the relatively low targets set by these countries in the first place coupled with the global economic crisis, which occurred in 2009, which slowed down global growth.⁸⁰⁰ This in turn affected the amount of greenhouse gases being emitted by the developed countries.⁸⁰¹ In addition to the low targets and global economic crisis, the flexible economic mechanism also enabled Annex B listed countries to find cost effective alternatives to meet their global governance commitments.⁸⁰²

⁷⁹⁵ ibid.

⁷⁹⁶ Betsill (n 411) 120.

⁷⁹⁷ More discussions on the Marrakesh Accord is stated in the next section.

⁷⁹⁸ Mayer (n 72) 42.

⁷⁹⁹ ibid.

⁸⁰⁰ Schiermeier (n 21) 657.

⁸⁰¹ ibid.

⁸⁰² ibid 658.

However, despite the initial signs of success, the wider fight against climate change was being lost. This was due to several factors one of which was the economic drive and growth in developing countries. The lack of obligations for these developing countries coupled with massive economic growth in China, some other parts of Asia, Africa and South America, resulted in about a Fifty percent (50%) increase in the amount of greenhouse gases in the atmosphere.⁸⁰³

The emissions from these countries, coupled with the fact that the US, the biggest emitter at the time, was taking little action to curtail its emissions, dwarfed the progress made by the other Annex B listed countries. It should be noted that the economic growth in these countries was not the problem. The problem, however, came due to most of these countries holding on to the anthropocentric economic-first mentality which gave little to not prioritization to the negative impact human actions might have on the climate.

This was exemplified in Nigeria where, even though the country ratified the Kyoto Protocol in December 2004, there was a massive increase in the level of CO₂ emissions in the country.⁸⁰⁴ The country was emitting about 17.26 million metric tons (mmt) of CO₂ in 1999 which increased to about 32.56 mmt in 2009.⁸⁰⁵ This was due to an increase in oil production and gas flaring, which was also the highest revenue earning sector of the country.⁸⁰⁶

By the time the second commitment period was about to end in 2012, a number of Annex B listed countries had lost the zeal to follow the tenets of the Kyoto Protocol viewing it as an imperfect document.⁸⁰⁷ Canada even went as far as withdrawing from the Kyoto Protocol a few weeks to the end of the expiration of the commitment period because the country had

⁸⁰³ ibid 656.

⁸⁰⁴ O. Anomohanran, 'Estimating the Greenhouse Gas Emission from Petroleum Product Combustion in Nigeria' (2011) 11(17) Journal of Applied Sciences 3209.
⁸⁰⁵ ibid 3211.

⁸⁰⁶ ibid.

⁸⁰⁷ Mayer (n 72) 42.

abandoned its commitments and did not want to be classified as a non-compliant Party.⁸⁰⁸ Scholars like Robert Stavins⁸⁰⁹ viewed the Kyoto Protocol as a massive failure.

He faulted the Protocol for expecting a country like Romania to commit to emission reduction targets while leaving countries with a higher per-capital income, like China and some other developing countries, with no commitments.⁸¹⁰ He went on to state that there was a need for a successor which would be universally binding on all governments with realistic emission targets.⁸¹¹ This view was increasingly shared by the Annex I parties which prompted them to enter into various negotiations coming up with different amendments and agreements which ultimately led to the creation of the present Paris Agreement.

4.5 Interim Global Accords and Agreements

Prior to the creation of the latest international governance initiative on climate change, the 2015 Paris Agreement, there were various negotiations and renegotiation sessions amongst States. These negotiations were steered towards attaining and resolving two main issues. Firstly, the negotiations aimed to develop a widely acceptable legal instrument for all States. Secondly, and due to the growing understanding of the danger of climate change, parties sought to create a new global instrument that professed a more environmental sustainability approach and ensured increased global success in the fight against climate change.

The non-ratification of the Kyoto Protocol by the US also served as motivation for States to ensure the two above stated points were attained. Parties began on this narrative by acting quickly and agreeing on the Marrakesh Accord, which served as an update to the Kyoto

⁸⁰⁸ ibid.

⁸⁰⁹ Schiermeier (n 21) 657.

⁸¹⁰ ibid.

⁸¹¹ ibid.

Protocol. After most States, excluding the US, ratified the Protocol and its updates, there were more negotiations and agreements before the Paris Agreement was formulated and adopted. This section aims to showcase some of the main conferences and resultant key agreements that were negotiated leading up to the creation of the Paris Agreement.

4.5.1 From Marrakesh to Bali

After the adoption of the Kyoto Protocol in 1997, there were still some issues that needed to be ironed out. This largely concerned the flexible economic mechanisms and how they would be implemented by the Annex B listed countries. Parties knew an additional legal document was needed to cover the lapses of the Kyoto Protocol. The need was further heightened with the decision of the US to withdraw from all negotiations. This brought a slight sense of fear that more Annex I countries may follow suit. This fear was momentarily quelled when Parties entered into an agreement at the seventh COP, which also served as the first meeting of the Parties to the Kyoto Protocol (CMP), in Marrakesh, Morocco in 2001.

The agreement and the resultant decisions of the Parties was codified and called the Marrakesh Accord.⁸¹² The Accord set out rules and guidelines aimed at helping countries smoothly achieve their commitments and implement the tenets of the Protocol. These rules centred on the flexible economic mechanisms. The EU, supported by many environmental agencies and developing countries, had initially proposed for the Parties to specify a numerical cap on the amount of times the flexible economic mechanism could be used.⁸¹³ The aim was to encourage Annex B countries to carry out more domestic actions when meeting their commitments.⁸¹⁴

⁸¹² Framework Convention on Climate Change, Report of the Seventh Session of the Conference of Parties (2001) FCCC/CP/2001/13. Hereinafter stated as Decision CP.7. and Conference of Parties Serving as the Meeting of the Parties to the Kyoto Protocol (2005) FCCC/KP/CMP/2005/8 Hereinafter stated as CMP.1.
⁸¹³ Sands, Peel et al (n 197) 311.

^{1010.}

However, most other Annex I parties were against including a cap on the use of the flexible economic mechanisms.⁸¹⁵ This latter position prevailed with parties at the conference deciding that, instead of having a cap in place, Annex B countries should ensure a significant amount of the action carried out, in line with meeting their Protocol commitments, were carried out in their domestic countries.⁸¹⁶ Arriving at such an unspecified decision can arguably be said to have been a way of ensuring more developed countries bought into the Kyoto Protocol.

The Marrakesh Accord also sets out guidelines for how each of the flexible economic mechanisms was to be used. Emphasis was placed on the CDM to which it was agreed that it was left to the host country, the non-Annex B country, to decide whether or not the project assisted in combating climate change and attaining sustainable development.⁸¹⁷ There was great hope that this flexible mechanism would be beneficial to the developing countries especially those in Africa.⁸¹⁸ It, however, did not generate as much use as intended and was criticized for contributing to global inequality and not sustainable development.⁸¹⁹

Authors like Birthe Peterson and Kamille Bollerup⁸²⁰ were of the view that the CDM did not achieve the main aim of being a tool for combating climate change. They believe the mechanism ended up being a useful market strategy for Annex B listed countries to attain low cost economic solutions without necessarily contributing to the development of sustainable growth.⁸²¹ They go on to state that the projects carried under the auspice of the CDM, by the developed countries, gravitated more towards ensuring the Kyoto targets were met while not necessarily promoting the sustainable development of their developing country counterparts.⁸²²

⁸¹⁵ Marrakesh Accord Decision 15/CMP.1.

⁸¹⁶ ibid.

⁸¹⁷ Marrakesh Accord Decision 3/CMP.1.

⁸¹⁸ Sands, Peel et al (n 197) 312.

⁸¹⁹ ibid.

 ⁸²⁰ Birthe Vichit Petersen and Kamille Bollerup, 'The Clean Development Mechanism and Its Failure in Delivering Sustainable Development' (2012) 8(1) the Interdisciplinary Journal of International Studies 75.
 ⁸²¹ ibid.

⁸²² ibid 80-82.

There exists some justification to this criticism. The CDM is structured favourably for Annex B listed countries to find the cheapest possible alternatives while requiring the developing countries to judge whether or not a project is climate friendly or not. The vulnerability of these developing countries, in terms of the need for economic growth, reduces their negotiating power on what kind of projects can be carried out within their country. This is why some authors have gone as far as calling the CDM a form of *'carbon colonialism'*.⁸²³ More discussions would be carried out on the North–South (developed and developing countries) climate change power play in the next chapter.

The all-round limited success of the Kyoto Protocol, in reducing the level of greenhouse emissions, despite the inclusion of the Marrakesh Accord, prompted parties to seek for a better legal document. The parties at the eleventh session of the COP held in Montreal, Canada in December 2005, decided to undergo two separate climate change rule negotiations at the same time.⁸²⁴

The first negotiations or negotiating track would build on the existing tenets in the Kyoto Protocol by exploring the creation of a second commitment period which would last beyond the scheduled commitment period of 2012.⁸²⁵ To this end, the parties agreed to create an Ad Hoc Working Group on Further Commitments for Annex I parties under the Kyoto Protocol (AWG-KP) to supervise the negotiations.⁸²⁶

The second negotiating track was set to expand on the tenets of the first global governance document on climate change, the UNFCCC 1992. The parties, through this second track, aimed to fashion out a new long term document consisting of emission reduction targets for developed

⁸²³ Esteve Corbera and Charlotte Friedli, 'Planting Trees through the Clean Development Mechanism: a Critical Assessment' (2012) 12(1/2) Ephemera: Theory & Politics in Organization 233.

⁸²⁴ Framework Convention on Climate Change, Report of the Eleventh Session of the Conference of Parties (2005) FCCC/CP/2005/5/Add.1.

⁸²⁵ Von Bassewitz (n 648) 112.

⁸²⁶ ibid.

countries, like the US, who had not ratified the Protocol while also looking to introduce commitments for developing countries.⁸²⁷ Work on this second track began in the thirteenth session of the COP held in Bali, Indonesia in December 2007. The COP 13 convened shortly after the IPCC had published its Fourth Assessment Report.

The IPCC Report gave a dire assessment of the global climate by stating that there had been an increase in the level of emissions while projecting a further increase in average global temperatures.⁸²⁸ The Report served as a fresh wake up call to the global community and a reminder that climate change was a very important global issue needing an intense approach to governance. This served as the inspiration upon which participants at the conference made their decisions which was documented and popularly referred to as the Bali Action Plan.⁸²⁹

The parties agreed, in line with the long-term vision of creating a more global legal document, to set up the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA).⁸³⁰ The aim of the AWG-LCA was to supervise the negotiation and eventual achievement of an improvement to the Convention which would result to long term cooperative action beyond 2012.⁸³¹ This was to be achieved before the fifteenth session of the COP.

The Bali Action Plan was famed for being the first step in political compromise between the developed and the developing parties in trying to fashion out a governance system which could potentially place commitments across all nations.⁸³² This negotiation track was welcomed by the US, who had initially held out for a regime that included all parties and was not overly

⁸²⁷ Sands, Peel et al (n 197) 317.

⁸²⁸ Le Treut, Somerville et al (n 123) 95.

 ⁸²⁹ Framework Convention on Climate Change, Report of the Thirteenth Session of the Conference of Parties (2007) FCCC/CP/2007/6/Add.1. Hereinafter referred to as the Bali Action Plan Decision CP.13.
 ⁸³⁰ ibid.

⁸³¹ ibid.

⁸³² Mayer (n 72) 43.

onerous on the developed countries. The US actively participated in this negotiation track but did not participate in the first negotiation track.

4.5.2 From Copenhagen to Cancun

The fifteenth session of the COP, which was held in Copenhagen, Denmark in December 2009, could be said to have been built up to be an important session in climate change governance. This is owing to the fact that the previous COPs had set the session as a deadline for decisions to be made on the direction of the two negotiation tracks: the amendment to the Protocol; and the development of a new legal document building on from the UNFCCC.⁸³³

The global expectation was very visible with the COP 15 having the largest gathering of participants at a UN conference at that time.⁸³⁴ About One Hundred and Twenty Five (125) countries were in attendance with a range of other different stakeholders.⁸³⁵ The Copenhagen conference, however, fell very short of expectations. The negotiations anchored by the AWG-LCA to fashion new commitments for developing countries and introduce more acceptable long term commitment targets for developed countries, was largely unsuccessful.⁸³⁶

The main contention came from the inability of China and the US to agree on the level of commitments expected of developing countries or how it would be structured.⁸³⁷ The lack of consensus forced the parties to extend the mandate of the AWG-LCA by an additional year, with a decision to be made and ready for adoption in the sixteenth session of the COP.⁸³⁸

⁸³³ Daniel Bodansky, 'The Copenhagen Climate Change Conference: a Postmortem' (2010) 104(2) the American Journal of International Law 230.

⁸³⁴ Lavanya Rajamani, 'The Making and Unmaking of the Copenhagen Accord' (2010) 59(3) the International and Comparative Law Quarterly 824.

⁸³⁵ ibid.

⁸³⁶ Von Bassewitz (n 648) 115-116.

⁸³⁷ Mayer (n 72) 43.

⁸³⁸ Framework Convention on Climate Change, Report of the Fifteenth Session of the Conference of Parties (2009) FCCC/CP/2009/11/Add.1. Hereinafter referred to as the Copenhagen Accord Decision CP.15.

Prior to the parties at the conference agreeing to postpone the AWG-LCA, the Prime Minister of Denmark engaged some major emitting countries to salvage some sense of success.⁸³⁹ This was after it became clear that parties were not in uniformity. The hosting Danish Prime Minister organized informal negotiations to fashion out an agreement which will be suitable for the major emitting developing countries and acceptable to the majority of the developed countries.⁸⁴⁰ Twenty Eight (28) countries partook in this informal negotiations including China and the US.⁸⁴¹ Nigeria was however not amongst the countries invited to the discussion.⁸⁴²

The resultant negotiated agreements, from this informal gathering, has been popularly referred to as the Copenhagen Accord.⁸⁴³ The Accord referenced the latest IPCC report and echoed the need to combat climate change and reduce the global level of greenhouse gas emissions.⁸⁴⁴ Parties to the Accord agreed to strive towards maintaining global temperatures to below Two (2) degrees Celsius.⁸⁴⁵ The Accord also called on all developed countries to commit to implementing "quantified economy-wide targets for 2020" which they are to submit to the secretariat by the 31st of January 2010.⁸⁴⁶ These targets could either be individually or jointly implemented.

The Accord also requests non-Annex I Parties, including developing and least developed countries, to submit non-quantified "*nationally appropriate mitigation actions*" to the secretariat by the 31st of January 2010.⁸⁴⁷ The Accord also pushed for developed countries to commit to jointly raising money for developing countries to aid them mitigate and adapt to the

⁸⁴¹ ibid.

⁸³⁹ Rajamani (n 834) 825.

⁸⁴⁰ ibid.

⁸⁴² ibid.

⁸⁴³ Copenhagen Accord Decision 2/CP.15.

⁸⁴⁴ ibid para. 2.

⁸⁴⁵ ibid.

⁸⁴⁶ ibid para. 4.

⁸⁴⁷ ibid para. 5.

problem of climate change.⁸⁴⁸ They were to raise Thirty billion US Dollars for the period 2010-2012 and also look to mobilize Hundred billion US Dollars by the year 2020.⁸⁴⁹

The Copenhagen Accord can arguably be said to set a new direction for global climate change governance. This is seen with the introduction of proposed commitments from all parties, even though what was expected from developing countries was less stringent from what was expected from the developed countries. The Accord was however met with resistance from the wider group of countries when it was presented at the final meetings of the COP held in Copenhagen.⁸⁵⁰

Most States rejected the Accord on the grounds of procedural irregularity stating the document was drafted and agreed to without universal consensus.⁸⁵¹ Some other countries however viewed the Accord as a step in the right direction.⁸⁵² Parties at the COP 15 decided to annex the Accord as one of the decisions taken in the session but not a binding legal document.⁸⁵³ The Accord has been remarked as the major progressive action that happened in COP 15 which also salvaged the Conference from being categorised as a total failure.

Scholars like Bodansky⁸⁵⁴ had gone on to refer to the Accord as a *"significant breakthrough"*⁸⁵⁵ in climate change governance. Some countries, which had initially rejected the Accord, began to support it after having had the time to read it. This increased support led to the formal adoption of the Accord in the sixteenth COP held in Cancun, Mexico in December 2010. The formally adopted Copenhagen Accord was codified as the Cancun Agreements.⁸⁵⁶

⁸⁵³ ibid.

⁸⁴⁸ ibid para. 8.

⁸⁴⁹ ibid.

⁸⁵⁰ Rajamani (n 834) 826.

⁸⁵¹ ibid.

⁸⁵² Mayer (n 72) 44.

⁸⁵⁴ Bodansky (n 833) 230.

⁸⁵⁵ ibid 239.

⁸⁵⁶ Framework Convention on Climate Change, Report of the Sixteenth Session of the Conference of Parties (2010) FCCC/CP/2010/7/Add.1. Hereinafter referred to as the Cancun Agreements Decision CP.16.

The adoption of the Cancun Agreement marked the first global governance on climate change which expected commitments from developed and developing countries. The Agreement reiterated the quantified economy-wide emission reduction targets expected to be submitted by developed country parties to be implemented by 2020.⁸⁵⁷ The Agreement also echoed the expectation that developing countries were to submit their nationally appropriate mitigation action to the UN secretariat.⁸⁵⁸

Notably, all Annex I Parties⁸⁵⁹ have pledged their emission targets in line with the Cancun Agreements.⁸⁶⁰ While over three-quarters of the non-Annex I developing countries have also submitted their nationally appropriate mitigation actions to the secretariat.⁸⁶¹ Nigeria is part of the countries that never submitted her pledged nationally appropriate mitigation action to the secretariat.

The Cancun Agreement was famed for getting high emitting developed and developing countries, who had refused to commit to the Kyoto Protocol or had no set commitments, to pledge to reduce their emissions.⁸⁶² Developed countries, like USA and Canada, and historically non-Annex I countries, like China and India, all made some form of commitment under the Cancun Agreement.⁸⁶³ Mayer⁸⁶⁴ was of the opinion that the main criticism that could be levelled against the Cancun Agreement was that States pledged and committed to actions that took the least effort.

⁸⁵⁷ Cancun Agreements Decision 1/CP.16 para. 36.

⁸⁵⁸ ibid para. 49.

⁸⁵⁹ It should be noted that Kazakhstan is not included under the list of Annex I Parties under the 1992 Convention but is included under the Kyoto Protocol.

⁸⁶⁰ UNFCCC, 'Appendix I- Quantified Economy-Wide Emissions Targets 2020'

<https://unfccc.int/process/conferences/pastconferences/copenhagen-climate-change-conference-december-2009/statements-and-resources/appendix-i-quantified-economy-wide-emissions-targets-for-2020> accessed 12 May 2019.

⁸⁶¹ UNFCCC, 'Appendix II- Nationally Appropriate Mitigation Actions of Developing Country Parties' https://unfccc.int/process/conferences/pastconferences/copenhagen-climate-change-conference-december-2009/statements-and-resources/4> accessed 12 May 2019.

⁸⁶² Mayer (n 72) 45.

⁸⁶³ ibid.

⁸⁶⁴ ibid.

The Cancun Agreement also pushed for the building the climate adaptation capacity of vulnerable developing countries as well as their mitigation capacities.⁸⁶⁵ In this vein, the Agreement endorsed the financial commitments specified in the Copenhagen Accord.⁸⁶⁶ The Agreement also established the Green Climate Fund to: supervise; ensure accountability; and support parties in mitigating and adapting to climate change.⁸⁶⁷

4.5.3 From Durban to Lima

After the adoption of the Cancun Agreement, there was still a lingering global sense of a lack of accomplishment. Parties had not been able to agree on terms of the Kyoto Protocol extension beyond the 2012 commitment period and the deadline was fast approaching.⁸⁶⁸ There was also the lack of success in negotiating another legal document, following the 1992 Convention, to address the growing global problems associated with climate change.⁸⁶⁹ Both these issues made the next COP, which was to be held in Durban South Africa, an important one.⁸⁷⁰

In the seventeenth COP held between November and December 2011 in Durban, parties made important progress on both the Convention negotiations and the Kyoto extension. Starting with the Convention negotiations, parties decided that the AWG-LCA will be terminated after the COP 18 session in favour of a newly established working group called Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP).⁸⁷¹ The ADP was set up to supervise negotiations regarding the development of a "*protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties*".⁸⁷²

⁸⁶⁵ Cancun Agreements Decision 1/CP.16 para. 11.

⁸⁶⁶ ibid para. 102.

⁸⁶⁷ ibid.

⁸⁶⁸ Von Bassewitz (n 648) 124.

⁸⁶⁹ Sands, Peel et al (n 197) 317.

⁸⁷⁰ Framework Convention on Climate Change, Report of the Seventeenth Session of the Conference of Parties (2011) FCCC/CP/2011/9/Add.1. Hereinafter referred to as the Durban Decision CP.17.

⁸⁷¹ Durban Decision 1/CP.17 para. 1.

⁸⁷² ibid para. 2.

A new timeline for negotiations was established which was to be completed on or before 2015, so as to ensure the legal document created is in effect and implementable from 2020.⁸⁷³ Parties also agreed to raise their ambitions and level of commitments,⁸⁷⁴ while also following a work plan that ensures the best climate mitigation efforts, for all parties, is attained.⁸⁷⁵ As regards to the Protocol negotiations, the parties agreed, in principle alone, to create a second commitment period for Annex B listed countries which would run from 2013 to 2017 or to 2020.⁸⁷⁶ This agreement was not formalized but extended to COP 18 scheduled to be held in Doha, Qatar.⁸⁷⁷

COP 18, held in 2012 in Doha, also served as the eighth session of the parties to the Kyoto Protocol. The main objective here was to devise an extension plan for the Kyoto Protocol commitment period.⁸⁷⁸ The decisions taken have been referred to as the Doha Amendments. The Doha Amendments replaced the Annex B quantified emission reduction commitments stated in the Kyoto Protocol with new commitments for developed countries while also specifying that the second commitment period would extend between 2013 and 2020.⁸⁷⁹

Interestingly, the Parties stated in this new amendment were mostly countries in Europe with the US and Canada maintaining non-participation in any Kyoto Protocol related negotiations.⁸⁸⁰ As this was meant to be an amendment to the Kyoto Protocol, the requirement of an acceptance by three-quarters of the parties to the Protocol was needed for the Doha Amendment to enter into force.⁸⁸¹ This meant that at least One hundred and forty four (144) parties to the Protocol needed to ratify the amendment for it to become enforceable.⁸⁸²

⁸⁷³ ibid para. 4.

⁸⁷⁴ ibid para. 6.

⁸⁷⁵ ibid para. 7.

⁸⁷⁶ Sands, Peel et al (n 197) 317.

⁸⁷⁷ ibid.

⁸⁷⁸ Conference of Parties Serving as the Meeting of the Parties to the Kyoto Protocol (2012)

FCCC/KP/CMP/2012/13 Hereinafter stated as Doha Amendments CMP.

⁸⁷⁹ ibid Annex I.

⁸⁸⁰ Sands, Peel et al (n 197) 317.

⁸⁸¹ Doha Amendment 1/CMP.8 para. 1.

⁸⁸² Kyoto Protocol 1997 Art. 20 (4).

However, as of early May 2019, only One hundred and twenty eight (128) had submitted their instrument of acceptance, which means the Doha Amendment has still not come into force.⁸⁸³ Noticeably, Nigeria is amongst the countries that has not accepted the Doha Amendment. The slow support for the Doha Amendment can be attributed to the willingness of the global community to fashion out a more acceptable legal document under the Convention which will be universally acceptable amongst the Parties rather than extending the relatively unpopular Kyoto Protocol.⁸⁸⁴

This meant that the COP's held between Doha in 2012 and Paris in 2015 all acted as a build up for the new legal document which became known as the Paris Agreement. This was exemplified at the COP 19 held in November 2013 in Warsaw, Poland where all parties, both developed and developing, were invited to submit their intended nationally determined contributions (INDCs), which would be imputed in the proposed new legal instrument in line with meeting the objectives of the Convention.⁸⁸⁵

Further clarification aimed at guiding all UN Parties on the requirements of the INDCs was specified in the Twentieth COP held in December 2014 in Lima, Peru. The decisions were called the 'Lima Call for Climate Action'⁸⁸⁶. The COP call for climate action states that, in line with ensuring transparency and clarity, the INDC provided by all the Parties was to include quantifiable information on: time frame for implementation; planning process; scope and coverage; assumptions and methodological techniques inclusive of those used to estimate and

⁸⁸³ List of countries that have accepted the Doha Agreement can be found on the UN website https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-

c&chapter=27&clang=_en> accessed 21 May 2019.

⁸⁸⁴ Mayer (n 72) 46.

⁸⁸⁵ Framework Convention on Climate Change, Report of the Nineteenth Session of the Conference of Parties (2013) FCCC/CP/2013/10/Add.1 Decision 1/CP.19 para. 2(b).

⁸⁸⁶ Framework Convention on Climate Change, Report of the Twentieth Session of the Conference of Parties (2014) FCCC/CP/2014/10/Add.1. Hereinafter stated as the Lima Decisions CP.20.

account for the emissions and, where appropriate, removals of anthropogenic greenhouse gases.⁸⁸⁷

The Parties, while ensuring the objectives laid out in the Convention are achieved, should take note of their different national circumstances when determining their fair and ambitious INDCs.⁸⁸⁸ This served as a guideline for Parties. The willingness of Parties to complete negotiations and finalize a formal legal document at the upcoming Paris Conference, was very evident with over One hundred and eighty countries (180) countries representing over Ninety percent (90%) of the world's emissions, submitted their INDCs a few months to the conference.⁸⁸⁹

4.6 Paris Agreements

Following on from the initial Bali Action Plan to enter into negotiations to build on the tenets of the Convention and the mandate given to the ADP to anchor these negotiations, the members of the UN finally came up with a new legal instrument to govern climate change globally. The different conferences and intense negotiations, including the commitments of both developed and developing parties, resulted in the development of the Paris Agreement.

The Agreement was adopted by Parties on the 12th of December 2015 at the Twenty first COP held in Paris, France.⁸⁹⁰ The Paris Agreement, which was contained in the annex of the COP decision paper,⁸⁹¹ was open to countries for signing at the UN headquarters located in New

⁸⁸⁷ Lima Decisions 1/CP.20 para. 14.

⁸⁸⁸ ibid.

⁸⁸⁹ Center for Climate and Energy Solutions, 'Outcomes of the UN Climate Change Conference in Paris' December 2015 https://www.c2es.org/site/assets/uploads/2015/12/outcomes-of-the-u-n-climate-change-conference-in-paris.pdf> accessed 21 May 2019 page 2.

⁸⁹⁰ Framework Convention on Climate Change, Report of the Twenty first Session of the Conference of Parties (2015) FCCC/CP/2015/10/Add.1. Hereinafter stated as the Paris Decisions CP.21.

⁸⁹¹ Paris Decisions 1/CP.21 para. 1.

York, USA from the 22nd of April 2016.⁸⁹² The positivity surrounding the creation of the Paris Agreement was so much that the then UN Secretary General, Ban Ki Moon called the development *"a resounding success for multilateralism"*.⁸⁹³ He further admonished States not to delay in signing and ratifying the Paris Agreement.⁸⁹⁴

For the Agreement to come into force, Fifty Five (55) States, who had signed up to the UNFCCC and make up Fifty Five percent (55%) of global greenhouse emissions, are required to have signed up to the Agreement and deposited their instruments of acceptance and ratification.⁸⁹⁵ On the thirtieth day after this is done, the Agreement will come into force.⁸⁹⁶ It should be noted that the ratification instrument represents that the country's internal procedures have been met to ensure the country is bound by the Agreement.

In an unprecedented feet, as soon as the Agreement was open for signage, about One hundred and seventy five (175) States signed up to it.⁸⁹⁷ Once the required number of ratification instruments had been submitted, the Agreement came into force on the 4th of November 2016. As of May 2019, One hundred and ninety five (195) countries had signed up to the Paris Agreement and One hundred and eighty six (186) countries had deposited their instruments of ratification.⁸⁹⁸ Noticeably, Nigeria signed on to the Agreement on the 22nd of September 2016 and deposited her ratification instrument on the 16th of May 2017.⁸⁹⁹

⁸⁹² Paris Decisions 1/CP.21 para. 2.

⁸⁹³ Harro Van Asselt and Fariborz Zelli, 'International Governance: Polycentric Governing by and beyond the UNFCCC' in Andrew Jordan, Dave Huitema et al (eds), *Governing Climate Change: Polycentricity in Action?* (CUP 2018) 29.

⁸⁹⁴ ibid.

⁸⁹⁵ Paris Agreement 2015 Art. 21(1).

⁸⁹⁶ ibid.

⁸⁹⁷ Mayer (n 72) 46.

⁸⁹⁸ Status of the Paris Agreement as found on the UN website

<https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-

d&chapter=27&clang=_en> accessed 23 May 2019.

⁸⁹⁹ ibid.

4.6.1 Elements of the Paris Agreement

The speed by which the Paris Agreement was ratified could arguably be said to portray the global optimism around the creation of this new legal document aimed at governing climate change.⁹⁰⁰ The willingness of countries, both developed and developing, to take on climate change commitments also shows the growing global understanding of the need to adopt an environmental sustainability approach to governance.⁹⁰¹

The main blemish, in terms of the politicization of the global governance of climate change, comes from the intention of the US, a leading global emitter of greenhouse gases, to pull out of the Agreement. The current US President, Donald Trump, on the 1st of June 2017 announced that the US was pulling out of the Agreement.⁹⁰² The decision will however not become active until November 2020 due to the requirement of the Agreement which states that a withdrawal can only become viable three years after the Agreement becomes enforceable or as stated in the withdrawal notification.⁹⁰³

There is, however, a considerable amount of internal support for the Agreement amongst the political class in the US which may leave room for a possible re-entry by the US, to the Agreement, under the leadership of another President.⁹⁰⁴ The withdrawal of the US has not weaned the support for the Agreement with more countries expected to ratify the document. Free from the politics associated with international agreements, the Paris Agreement can be said to be an imperfect but progressive document.⁹⁰⁵ In line with understanding this global

⁹⁰⁰ Ogbumgbada (n 20) 321.

⁹⁰¹ Rajamani (n 25) 494.

⁹⁰² Mayer (n 72) 46.

⁹⁰³ Paris Agreement 2015 Art. 28.

⁹⁰⁴ Scott Clement and Brady Dennis, 'Post-ABC poll: Nearly 6 in 10 oppose Trump scrapping Paris Agreement' (The Washington Post, 5 June, 2017) https://www.washingtonpost.com/news/energy-

environment/wp/2017/06/05/post-abc-poll-nearly-6-in-10-oppose-trump-scrapping-paris-

agreement/?utm_term=.70673db80d43> accessed 24 May 2019.

⁹⁰⁵ Ogbumgbada (n 20) 320.

document, in terms of climate change governance and how it showcases the adoption of an environmental sustainability approach to governance, some key elements of the Agreement will be looked at below.

4.6.1.1 Legal Nature of the Paris Agreement

The legal character of the Paris Agreement was a point of contention all through the negotiating period. Most of the parties, spearheaded by the EU States, were in favour of the proposed legal instrument taking the form of a legally binding international document and therefore recognized as a treaty.⁹⁰⁶ The globally recognized definition of what a treaty means is found in the Vienna Convention. A treaty is defined as an *"international agreement concluded between States in written form and governed by international law"*.⁹⁰⁷

There was however a hesitation by the parties to have the new legal instrument to be an outright treaty due the fact that some countries will require some level of internal approval for it to be actionable within the country.⁹⁰⁸ Nigeria was one of such countries. The reason for the hesitation was mainly due to the past experience surrounding the Kyoto Protocol. This involved the then US President signing the Protocol but not being able to ratify it because the country's Senate was opposed to the Protocol, barring its enforceability in the US.⁹⁰⁹

The parties sought to structure the new legal instrument in such a way that it would have the effect of a treaty but would not be at the mercy of the US Senate, thereby living room for an Executive Order to be sufficient for it to become enforceable.⁹¹⁰ This resulted in the Paris Agreement been drafted like a treaty but with soft obligations, which left room for executive

⁹⁰⁶ Mayer (n 72) 46.

⁹⁰⁷ Vienna Convention on the Law of Treaties 1969 Art. 2(1)(a).

⁹⁰⁸ Vienna Convention on the Law of Treaties 1969 Art. 2 (1)(b).

⁹⁰⁹ See Section 4.4.3 above for more on the US refusal to ratify the Kyoto Protocol.

⁹¹⁰ Sands, Peel et al (n 197) 319.

action.⁹¹¹ The ink had not even dried up on the Agreement before a number of international law scholars began to criticize this novel approach.

Anne-Marie Slaughter⁹¹², a former president of the American Society of International Law, was of the view that the Paris Agreement falls extremely short of a standard treaty. In her opinion, a traditional standard treaty should be a binding document which needs to be ratified by the national parliament of a party to the treaty.⁹¹³ She adds that by doing so, the treaty becomes part of the party's domestic laws thereby ensuring its enforceability within the State.⁹¹⁴

Richard Falk⁹¹⁵, another notable international law scholar, agrees with this view and states that the Paris Agreement lowered the bar in terms of enforceability, in international law which is already notorious for being known to be weak in ensuring States follow up with their obligations. There is no denying the legitimacy of the points raised by Slaughter and Falk on the legal position of the Paris Agreement. The Agreement can be said to be structured in a way that gives States the ability to executively agree with the tenets of the Agreement without the danger of getting denied or halted by their State parliaments.

The downside to this, highlighting the opinions of Slaughter and Falk, is that the Agreement becomes subject and dependent on the will of the executive of the State. This view is supported by Mayer⁹¹⁶ who points out that the legal status of the Paris Agreement, which he believes was mainly to ensure the participation of the US, ironically makes State participation vulnerable to

⁹¹¹ Ibid.

⁹¹² Anne-Marie Slaughter, 'The Paris Approach to Global Governance' (Project Syndicate, 28 December, 2015) https://www.project-syndicate.org/commentary/paris-agreement-model-for-global-governance-by-anne-marie-slaughter-2015-12?barrier=accesspaylog> accessed 24 May 2019.

⁹¹³ ibid. ⁹¹⁴ ibid.

⁹¹⁴ ibid

⁹¹⁵ Richard Falk, 'Voluntary International Law and the Paris Agreement' (Global Justice in the 21st Century, 16 January, 2016) < https://richardfalk.wordpress.com/2016/01/16/voluntary-international-law-and-the-paris-agreement/> accessed 24 May 2019.

⁹¹⁶ Mayer (n 72) 46-47.

an administration change within a country. This is playing out in the US. Another example is seen with Nigeria where, under the administration of President Muhammadu Buhari, the country signed and ratified the Agreement but, as of May 2019, has not made it a national law under his administration.⁹¹⁷

Daniel Bodansky⁹¹⁸ also agrees with this analysis and adds that there exists some justification in stating that the Paris Agreement lacks some traditional characteristics associated with international treaties. He however believes that this does not ultimately disqualify the Paris Agreement from being considered a treaty.⁹¹⁹ He believes the tenets of the Agreement creates legal obligations which parties are expected to be bound by.⁹²⁰ He however concedes that some tenets of the Paris Agreement, due to the language used, have mandatory obligations while some do not which, in his opinion, does not invalidate the treaty status of the Paris Agreement.⁹²¹

Jean Galbraith⁹²² takes a more central view by stating that rather than being stuck in a back and forth contentious discussion on the legal nature of the Paris Agreement, there should be an appreciation for the ingenuity of the international community. She states that the Paris Agreement exemplifies the use of new pathways to promote international commitments amongst Parties.⁹²³ Aligning with the view of Galbraith but noting the points highlighted by Slaughter and Falk above, the Paris Agreement should be analysed based on the tenets it professes. This will potentially lead to the creation of strong domestic laws to govern climate change, as is exemplified in Kenya with her Climate Change Act of 2016.

 ⁹¹⁷ Musa Abdullahi Krishi, 'Buhai Rejects Climate Change Bill, 4 Others' (Daily Trust, 21 March, 2019)
 https://www.dailytrust.com.ng/buhari-rejects-climate-change-bill-4-others.html accessed 26 May 2019.
 ⁹¹⁸ Daniel Bodansky, 'The Legal Character of the Paris Agreement' (2016) 25(2) Review of European, Comparative and International European Law 142.

⁹¹⁹ ibid.

⁹²⁰ ibid.

⁹²¹ ibid 148-150.

⁹²² Galbraith (n 459) 1731.

⁹²³ ibid.

The legal nature of the Agreement will always remain contentious because it leaves room for executive action without legislative approval, which leaves room for fragility.⁹²⁴ This problem is seen playing out in Nigeria, as has been highlighted earlier. The lack of a need for parliamentary approval in the Paris Agreement, especially in the case of Nigeria, has been criticized by scholars like Christian Okeke⁹²⁵ who believe it leaves room for the country to internationally appear to be aligned with climate change without actually taking the needed national action.

However, a concentration on the tenets of the Agreement and the commitments within it, can be a great pedestal for countries to actively combat climate change and showcase the growing global adoption of an environmental sustainability approach to governance. On that note, this thesis will carry on with the analysis of the Paris Agreement free of the shackles of the uncertainty of its legal status in order to understand the tenets professed in the Agreement and the possible application for a developing country like Nigeria.

4.6.1.2 Objective of the Paris Agreement

The Agreement aims to improve on the attainment of the 'ultimate objective' stated in the 1992 Convention⁹²⁶ by strengthening the global response of parties to the problem of climate change while also promoting sustainable development and encouraging positive strides to eradicate global poverty.⁹²⁷ The Agreement further highlights three (3) other focus areas besides improving on the Convention objective.

Firstly, the Agreement sets out to limit the impact and risk of climate change by aiming to maintain the level of *"global average temperature to well below 2°C above pre-industrial*

⁹²⁴ ibid 1740.

⁹²⁵ Christian N. Okeke, 'The Use of International Law in the Domestic Courts of Ghana and Nigeria' (2015)32(2) Arizona Journal of International and Comparative Law 372.

⁹²⁶ UNFCCC 1992 Art. 2.

⁹²⁷ Paris Agreement 2015 Art. 2(1).

levels and pursing efforts to limit the temperature increase to 1.5°C above pre-industrial levels ".⁹²⁸ Secondly, the Agreement aims to increase the ability of parties to adapt to the effects of climate change and build up climate resilience while also ensuring that the continuous reduction in global greenhouse levels do not adversely affect food production.⁹²⁹ Lastly, the Agreement aims to ensure there is a constant flow of finances to aid in the development of climate resilience and lowering of greenhouse gas emissions.⁹³⁰

The Agreement further emphasizes that the temperature goals set out should be aimed to be achieved as soon as possible.⁹³¹ This was to be done in recognition of the principle of common but differentiated responsibility and respective capabilities, and should reflect equity in view of the national circumstances of the different parties.⁹³² Scholars like Rajamani⁹³³ believe the stance taken under the Agreement, which was focused on long term temperature reduction, was inspired by the need to safeguard the existence of Small Island countries and developing countries, who stood at a higher risk if temperature goals are not attained.

This is because, developing countries, especially those located near large bodies of water, are increasingly becoming more vulnerable to flooding due to warmer temperatures and increasing sea levels.⁹³⁴ To put this in context, the Nigerian city of Lagos, which is not technically an island but borders the Atlantic Ocean, has been categorised as one of the cities vulnerable to sea level rises.⁹³⁵ A continuous rise in global temperatures and a rise in sea levels could lead to more than half of this unofficial commercial capital of Nigeria, being submerged in water.⁹³⁶

⁹²⁸ Paris Agreement 2015 Art. 2(1)(a).

⁹²⁹ Paris Agreement 2015 Art. 2(1)(b).

⁹³⁰ Paris Agreement 2015 Art. 2(1)(c).

⁹³¹ Paris Agreement 2015 Art. 4(1).

⁹³² Paris Agreement 2015 Art. 2(2).

⁹³³ Rajamani (n 25) 496.

⁹³⁴ Ogbumgbada (n 20) 322.

 ⁹³⁵ Katherine Kramer, 'Sinking Cities, Rising Seas: A Perfect Storm of Climate Change and Bad Development Choices' (2018) Christian Aid https://www.christianaid.org.uk/sites/default/files/2018-10/Christian-Aid-Sinking-cities-rising-seas-report.pdf> accessed 26 May 2019.
 ⁹³⁶ ibid 6.

The awareness of the need to attain the global temperature goals was to be achieved through the nationally determined contributions (NDCs) of the different parties.

4.6.1.3 NDCs under the Paris Agreement

Following on from the invitation to all parties to submit their INDCs in COP 19⁹³⁷ and the guiding requirements set out in the COP 20⁹³⁸, the Paris Agreement cemented the NDCs as the main tool through which the stated objectives were to be met.⁹³⁹ There was a bottom to top approach under the Agreement wherein all parties were required to set out their emission reduction targets themselves, while being encouraged to be ambitious.⁹⁴⁰ Parties are to communicate these NDCs while pursuing domestic climate change mitigation measures.⁹⁴¹

The Agreement also expects these communicated NDCs to become increasingly ambitious so as to show progress from the Party's current NDCs.⁹⁴² This was to be done mindful of the principle of common but differentiated responsibility and relative capacity of the Parties.⁹⁴³The Paris Agreement, unlike the previous global governance initiatives, removes the previous country classification by expecting both developed and developing country parties to put forward and aim to ensure their NDCs are achieved.⁹⁴⁴

However, in recognition of the capacity of the different parties, developed country parties are still expected to take the lead in global climate change governance, utilizing economy-wide reduction targets.⁹⁴⁵ These parties are expected to provide support to their developing

⁹³⁷ Framework Convention on Climate Change, Report of the Nineteenth Session of the Conference of Parties (2013) FCCC/CP/2013/10/Add.1 Decision 1/CP.19 para. 2(b).

⁹³⁸ Lima Decisions 1/CP.20 para. 14.

⁹³⁹ Paris Agreement 2015 Art. 3.

⁹⁴⁰ Marie-Claire Segger, 'Advancing the Paris Agreement on Climate Change for Sustainable Development' (2016) 5(2) Cambridge Journal of International and Comparative Law 209.

⁹⁴¹ Paris Agreement 2015 Art. 4(2).

⁹⁴² Paris Agreement 2015 Art. 4(3).

⁹⁴³ ibid.

⁹⁴⁴ Mayer (n 72) 48.

⁹⁴⁵ Paris Agreement 2015 Art. 4(4).

counterparts, so as to enable the latter attain higher NDC ambitions.⁹⁴⁶ The least developed countries and Small Island States are also expected to make contributions, even though minimal, due to their special circumstances, by communicating their plans and strategies aimed at lowering greenhouse gas emissions.⁹⁴⁷ This is a clear continuation of the principle of common but differentiated responsibility with the added expectation of participation from all parties while being mindful of the different levels of impact of climate change.⁹⁴⁸

Apart from giving the Parties the leeway to unilaterally determine their national commitments, the Paris Agreement widens the global governance of climate change from being mainly mitigation focused, as was the case under the Kyoto Protocol.⁹⁴⁹ The Agreement requires all parties to specify their contributions in the area of climate change adaptation⁹⁵⁰ and the manner in which loss and damage, adversely associated with the effects of climate change, will be addressed.⁹⁵¹

Parties, especially developed country parties, are also expected to communicate to the UNFCCC Secretariat their contributions towards providing financial assistance,⁹⁵² technological support⁹⁵³ and capacity building activities.⁹⁵⁴ All the Parties are expected to communicate their NDCs every five years to the Secretariat.⁹⁵⁵As of May 2019, a total of One

⁹⁴⁶ Paris Agreement 2015 Art. 4(5).

⁹⁴⁷ Paris Agreement 2015 Art. 4(6).

⁹⁴⁸ Paris Agreement 2015 Art. 4(15).

⁹⁴⁹ Mayer (n 72) 48.

⁹⁵⁰ Paris Agreement 2015 Art. 7.

⁹⁵¹ Paris Agreement 2015 Art. 8.

⁹⁵² Paris Agreement 2015 Art. 9.

⁹⁵³ Paris Agreement 2015 Art. 10.

⁹⁵⁴ Paris Agreement 2015 Art. 11.

⁹⁵⁵ Paris Agreement 2015 Art. 4(9).

hundred and eighty three (183) Parties have submitted their first NDCs with the next submissions expected in 2020.⁹⁵⁶ Nigeria submitted her first NDC on the 16th of May 2017.⁹⁵⁷

The key focus aspects in the NDC submitted by Nigeria centred on reduction from business as usual with key measures being: bringing an end to gas flaring; more efficient gas generation; climate smart agriculture and reforestation; an improved electricity grid; transportation shift from cars to buses; and an annual two percent (2%) energy efficiency.⁹⁵⁸

The target year set by the Nigerian government to achieve its stated NDC is 2030, with the implementation period set from 2015 to 2030.⁹⁵⁹ Further examination is carried out on the progress Nigeria has taken to achieve the stated goals in her NDC and the general strides, or lack thereof, to govern the problem of climate change in chapter six of this thesis.

4.6.1.4 Efforts to cater for Loss and Damage under the Paris Agreement

The Paris Agreement sought to improve on the position stipulated in the Kyoto Protocol by clamouring for the governance of climate change to go beyond focusing mainly on mitigation by including steps that cater for the loss and damage resulting from the effects of climate change. This stance looks beyond only focusing on steps to reduce the amount of greenhouse gas emissions to recognizing that some countries are already experiencing the adverse effects of this global problem.⁹⁶⁰ In light of this, the Agreement introduces adaptive mechanisms while also attempting to address the loss and damage some States have already suffered from because of climate change.

⁹⁵⁶ List of countries that have submitted their NDCs can be found on the UNFCCC website ">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx<">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>">https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</ap>"">https:

⁹⁵⁷ Nigeria's Intended Nationally Determined Contribution

https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Nigeria%20First/Approved%20Nigeria%27s%20INDC_271115.pdf> accessed 27 May 2019.

⁹⁵⁸ ibid 2.

⁹⁵⁹ ibid.

⁹⁶⁰ Sands, Peel et al (n 197) 326.

In terms of adaptation, the Agreement establishes the global goal on adaptation aimed at *"enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change"*.⁹⁶¹ The Agreement goes on to emphasize the need to meet the stated objectives while building the resilience of countries to being able to adapt to the changing climate.⁹⁶²

Parties are encouraged to undertake increased cooperation⁹⁶³ and engage the assistance of the UN specialized agencies⁹⁶⁴ when dealing with climate change adaptation in addition to their country-driven adaptation action.⁹⁶⁵ The Agreement notes that greater funds will be required as increased adaptation is needed.⁹⁶⁶ Parties are also encouraged to periodically submit and update their adaptation communication to the Secretariat⁹⁶⁷ containing adaptation plans, implementation, priorities and support needs.⁹⁶⁸

Loss and damage, associated to climate change, relates to the adverse effects of climate change which cannot be prevented through mitigation or adaptation.⁹⁶⁹ This covers loss and damage caused by extreme weather events and slow onset events such as: flooding; droughts; heatwaves; glacial retreat; and sea level rises.⁹⁷⁰ The Paris Agreement recognizes these possibilities and thereby admonishes parties of the importance of striving to minimize and address the losses associated with climate change.⁹⁷¹ Reference is made to the Warsaw International Mechanism for Loss and Damage, established in COP 19, as the institution to

⁹⁶¹ Paris Agreement 2015 Art. 7(1).

⁹⁶² Paris Agreement 2015 Art. 7(2).

⁹⁶³ Paris Agreement 2015 Art. 7(7).

⁹⁶⁴ Paris Agreement 2015 Art. 7(8).

⁹⁶⁵ Paris Agreement 2015 Art. 7(5).

⁹⁶⁶ Paris Agreement 2015 Art. 7(4).

⁹⁶⁷ Paris Agreement 2015 Art. 7(12).

⁹⁶⁸ Paris Agreement 2015 Art. 7(10).

⁹⁶⁹ Ogbumgbada (n 20) 323.

⁹⁷⁰ Sands, Peel et al (n 197) 326.

⁹⁷¹ Paris Agreement 2015 Art. 8(1).

guide parties on how to cooperate with each other and obtain general support in relation to loss and damage associated to the impacts of climate change.⁹⁷²

Developing countries, most especially Small Island States, had always clamoured for attention to be given to adverse effects related to climate change.⁹⁷³ Some developed countries were a bit apprehensive because of the possibility of this leading to a case of liability and compensatory payments.⁹⁷⁴ The parties, during the negotiations leading up to the formation of the Paris Agreement in COP 21, tried to address this issue by stating that the loss and damage provision in the Agreement will not be an avenue for liability or compensation.⁹⁷⁵

4.6.1.5 Implementation and Compliance under the Paris Agreement

The importance of having an established legal status becomes very vital when trying to ensure parties comply with the tenets of the Agreement and implement their NDCs. Due to the voluntary stance taken by the Agreement, its success is highly dependent on the political will of parties and their willingness to increase their ambitions over time.⁹⁷⁶ The Paris Agreement, in an attempt to balance State autonomy and ensure that States are encouraged to comply and implement their NDCs, sets out three mechanism to help boost compliance of Parties.

The first mechanism stated in the Paris Agreement is the transparency framework. The Agreement establishes "*an enhanced transparency framework*" to aid parties perform their functions while also taking into account their different capabilities.⁹⁷⁷ Following the theme of upholding State autonomy, the mechanism was only to be seen as a facilitation for

⁹⁷² Paris Agreement 2015 Art. 8(1)-(4).

⁹⁷³ Reinhard Mechler, Elisa Calliari et al, 'Science for Loss and Damage: Findings and Propositions' in Reinhard Mechler, Lauren Bouwer et al, *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Springer Open 2018) 5.

⁹⁷⁴ Sands, Peel et al (n 197) 326.

⁹⁷⁵ Paris Decisions 1/CP.21 para. 51.

⁹⁷⁶ Mayer (n 72) 49.

⁹⁷⁷ Paris Agreement 2015 Art. 13(1).

implementation and should be viewed as a "non-intrusive, non-punitive..., respectful of national sovereignty, and avoid placing undue burden on Parties".⁹⁷⁸

The purpose of the transparency framework is to provide parties with clarity in line with achieving the stated objectives while tracking their progress⁹⁷⁹ and providing them with support when needed.⁹⁸⁰ Parties are required to regularly provide a national inventory report, and any necessary information, to make it possible to track their progress.⁹⁸¹ All the information submitted by the parties will be reviewed by a technical expert who would identify ways the parties can improve and be supported.⁹⁸²

The second mechanism introduced under the Paris Agreement is the global stocktake process. This process involves a periodic stock taking of the level of implementation of the Agreement by the parties.⁹⁸³ The stock taking will also consider levels of mitigation and adaptation of parties, in light of the best available science.⁹⁸⁴ The first stocktake will be held in 2023 and every five years thereafter.⁹⁸⁵ The global stocktake would enable parties know if they need support in meeting their NDCs or if they need to update it.⁹⁸⁶

The third mechanism established under the Paris Agreement is a "*mechanism to facilitate implementation of and promote compliance with the provisions of this Agreement*".⁹⁸⁷ Just like the transparency mechanism, the expert-based mechanism is set up to promote compliance and ensure parties act transparently and non-adversarial, mindful of their different capabilities.⁹⁸⁸

⁹⁷⁸ Paris Agreement 2015 Art. 13(3).

⁹⁷⁹ Paris Agreement 2015 Art. 13(5).

⁹⁸⁰ Paris Agreement 2015 Art. 13(6).

⁹⁸¹ Paris Agreement 2015 Art. 13(7).

⁹⁸² Paris Agreement 2015 Art. 13(11)-(12).

⁹⁸³ Paris Agreement 2015 Art. 14(1).

⁹⁸⁴ ibid.

⁹⁸⁵ Paris Agreement 2015 Art. 14(2).

⁹⁸⁶ Paris Agreement 2015 Art. 14(3).

⁹⁸⁷ Paris Agreement 2015 Art. 15 (1).

⁹⁸⁸ Paris Agreement 2015 Art. 15 (2).

It is however unclear how this mechanism would function differently from the transparency mechanism earlier stated.⁹⁸⁹

4.6.2 Perception of the Paris Agreement so far

The creation and subsequent adoption of the Paris Agreement, has been widely lauded. The Agreement has even been seen as a marked improvement from the Kyoto Protocol. The Agreement moves global climate governance from being mainly focused on emission reduction to being more focused on adaptation and mitigation.⁹⁹⁰ The Agreement also introduces a more inclusive form of global governance through the adoption of a bottom-up approach wherein all States, developing and developed, are required to submit and adhere to their NDC's in line with ensuring a reduction of global temperatures.⁹⁹¹

Despite all these novel steps and portrayal of an increased acceptance of an environmental sustainability approach to global climate change governance, there still exists an underlying perception that this latest governance instrument is not doing enough. There exists two most common criticisms levelled against the Paris Agreement. The first is the perception that the target temperature, suggested in the Agreement, is not enough to effectively ensure the combating of climate change.

The second criticism is the dissonance between the collective aim and the individual approach to governing climate change. Both criticism are somewhat related especially in the face of growing scientific findings showcasing grieve global climatic pictures. Starting with the perception around the stated target temperature in the Paris Agreement, a plethora of scholars

⁹⁸⁹ Mayer (n 72) 50.

⁹⁹⁰ Tomoaki Nishimura, 'The Paris Agreement: Continuity and Change within the Climate Regime' in Neil Craik, Cameron S. G. Jefferies et al (eds), *Part I – Innovation in Legal Responses to Normative Change* (CUP 2018) 43.

⁹⁹¹ Yann Robiou du Pont and Malte Meinshausen, 'Warming Assessment of the bottom-up Paris Agreement Emission Pledges' (2018) 9(4810) Nature Communications 2.

are of the opinion that these targets are too safe to make an impact. The Agreement calls on States to focus on holding global temperatures to below 2°C above pre-industrial levels with the added aim of possibly limiting any increase in temperature to 1.5°C above pre-industrial levels.⁹⁹²

Naomi Klein⁹⁹³ is of the view that the focus of the Paris Agreement in striving to keep global temperatures at 2°C, can be likened to a death sentence for most African countries and low-lying Island countries. Her opinion comes based on the belief that these countries, which are also viewed to be the most vulnerable to the effects of climate change, will have a reduced fighting chance of survival if global temperatures are merely to be reduced to 2°C above pre-industrial levels.

There exist some level of credence that can be attributed to this thinking because of a recently published IPCC report.⁹⁹⁴ The report, published in 2018, specifies that States should aim to not exceed 1.5°C above pre-industrial levels rather than settling for 2°C, so as to ensure there is a slim chance of combating climate change.⁹⁹⁵ Failure to do this, the IPCC adds, could potentially have disastrous effects on our home planet of which there could be food insecurity, water shortage and a general destruction of the earth's ecosystem.⁹⁹⁶

⁹⁹² Paris Agreement 2015 Art. 2(1)(a).

⁹⁹³ Naomi Klein, 'Let Them Drown: The Violence of Othering in a Warming World' (2016) 38(11) London Review of Books in David Campbell, 'What does the Paris Agreement actually do?' (2016) 27(8) Energy & Environment 884.

⁹⁹⁴ Myles Allen, Mustafa Babiker et al, 'Summary for Policymakers' in Masson Delmotte, P. Zhai et al (eds), 'Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Preindustrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and efforts to Eradicate Poverty' (2018) IPCC <https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf > accessed 13 August 2019.

⁹⁹⁵ ibid.

⁹⁹⁶ ibid.
Based on this report, it is safe to assume that the most vulnerable countries stand to be most affected if the Paris Agreement status quo is maintained. Georgina Gustin⁹⁹⁷ has even gone on to state that adherence to how the Paris Agreement is structured now shows a lack of urgency, globally, despite growing scientific findings. In support of this view, over Eleven Thousand (11,000) scientist from across the world came together to emphasize that despite the existence of the Paris Agreement, greenhouse emissions are still rising globally.⁹⁹⁸ These group of scientist call for increased efforts from policy makers stating that the world is entering into a climate emergency.⁹⁹⁹

The perceived low ambition of the Paris Agreement has been further criticized by David Campbell¹⁰⁰⁰ who argues that the wording of the Agreement, specifically Art 2(1), leans more towards poverty eradication and general economic sustainability rather than a definitive and clear stance to reduce global emissions. He perceives there is still an underlying conflict between economic prioritization and climate change governance.¹⁰⁰¹ This underlying conflict ushers in the second criticism levelled against the Paris Agreement.

The belief, opined by David Campbell, of the Paris Agreement being a global governance instrument promoting an environmental sustainability approach while remaining vague as to countries economic drive, is well founded. The basis of this assertion can be traced to the manner in which countries decide their NDCs. Laudably, the Paris Agreement calls on all countries to submit their climate change governance commitments in view of meeting the

⁹⁹⁷ Georgina Gustin, 'The Paris Climate Problem: a dangerous lack of urgency' (Inside Climate News, 7 November, 2019) https://insideclimatenews.org/news/07112019/paris-climate-agreement-pledges-lack-urgency-ipcc-timeline-warning> accessed 22 June 2020.

⁹⁹⁸ William J. Ripple, Christopher Wolf et al, 'World Scientists' Warning of a Climate Emergency' (2020) 70(1) BioScience 8.

⁹⁹⁹ ibid.

¹⁰⁰⁰ David Campbell, 'What does the Paris Agreement actually do?' (2016) 27(8) Energy & Environment 886. ¹⁰⁰¹ ibid 892.

emission targets¹⁰⁰² with a 5-yearly periodic stocktaking to see how countries are meeting their commitments with the possibility of enhancing their governance pledges.¹⁰⁰³

The issue here is that most of the NDC's submitted, so far, are arguably very safe. Alexander Zahar¹⁰⁰⁴ captures the issue with the Paris Agreement succinctly when he states that the Agreement imposes a form of collective obligation on countries without curtailing their individual ambitions. He believes there is a gap between what he refers to as 'T-ambition' (treaty ambition) and 'S-ambition' (State ambition).¹⁰⁰⁵ He states that there is a non-specificity in the Paris Agreement of how the S-ambitions are to be structured in view of attaining the T-ambitions.¹⁰⁰⁶ He believes this has led to S-ambitions that are achievable and non-ambitious which do not necessarily ensure that the successful attainment of the T-ambition.¹⁰⁰⁷

In addition to this, du Pont and Meinshausen¹⁰⁰⁸ also both state that the NDCs of most countries have often mirrored a short term adherence to the status quo in terms of amount of greenhouse emissions. They believe the individuality and non-ambitious nature of the NDCs, especially for most developed countries, has further led to a poorly funded Green Climate Fund, which the Paris Agreement intended to serve as an avenue through which developing countries could be supported.¹⁰⁰⁹

Despite the above highlighted perceptions of the Paris Agreement, there is still relative optimism surrounding this present climate change governance regime. The fact that States are more willing to take a more environmental focused approach to climate change governance and are more receptive to scientific findings, serves as some justification for the positivity. It

¹⁰⁰² Paris Agreement 2015 Art. 4(2).

¹⁰⁰³ Paris Agreement 2015 Art. 14.

¹⁰⁰⁴ Alexander Zahar, 'Collective Obligation and Individual Ambition in the Paris Agreement' (2020) 9(1) Transnational Environmental Law 165.

¹⁰⁰⁵ ibid 168.

¹⁰⁰⁶ ibid 179.

¹⁰⁰⁷ ibid 187.

¹⁰⁰⁸ du Pont and Meinshausen (n 991) 2.

¹⁰⁰⁹ ibid.

is therefore too early to totally dismiss the Paris Agreement as a failed governance instrument like David Campbell,¹⁰¹⁰ who believes the governance instrument is a global negotiation failure.

This does not lessen the fact that the Paris Agreement is not a perfect document. This thesis, however, aligns with the view of Zahar¹⁰¹¹, who believes that the global stocktake in Paris Agreement, can enable more efficient and effective NDCs in future. Tomoaki Nishimura¹⁰¹² adds to this by stating the Agreement gives a sense of fluidity which allows for a possible increase in targets in view of the changing climate. The conclusion can therefore be drawn that the Paris Agreement, though laudable for being a step in the right direction, still needs to reflect the need for increased targets and corresponding commitments by States so as to properly reduce global emissions.

4.7 Conclusion

This chapter examined the global development of the climate change governance regime. It was discovered that the global community, after years of scientific publications and conferences centred on climate change, finally accepted the need to govern climate change through the creation of the UNFCCC of 1992. The UNFCCC has been popularly heralded for being the birth of global governance on climate change. It showcased a relative acceptance of the need to adopt an environmental sustainability approach to tackling climate change by calling on all States to play a part in tackling global emissions.

The UNFCCC was however seen to have been relatively handicapped due to the strong anthropocentric leaning of States. This resulted in the Convention lacking clear targets and

¹⁰¹⁰ Campbell (n 1000) 892.

¹⁰¹¹ Zahar (n 1004) 188.

¹⁰¹² Nishimura (n 990) 58.

timelines on how climate change was to be governed. Developed countries were highlighted in the Convention as those expected to take the lead in governance. Perceived ineffectiveness of the Convention led States to negotiate and develop a new global governance instrument established in 1997 as the Kyoto Protocol. The Protocol maintained the position that developed countries are to take the lead in climate change governance.

The Protocol took the environmental sustainability approach to climate governance to another level by requiring this developed country parties to commit to reducing their emissions by a certain level. The Protocol also stated the industries and sectors mainly responsible for the rise in greenhouse gas emissions. Even though there was an increased environmental protection outlook with the Kyoto Protocol, global emissions were still on the rise. This was partly due to an increase in emissions from some developing countries, like Nigeria and China, who had no clear or specific commitments to combat climate change under the Protocol.

In addition, some developed countries like the US and Canada, withdrew from the Protocol which led to a general feeling of the Protocol being a failure. After numerous international conferences, agreements and accords, parties at the COP21 held in Paris, France in 2015, established the Paris Agreement. The Agreement, which is the latest global instrument, took the environmental sustainability approach to governance to another level by requiring all States, developed and developing, to make specific commitments to combating climate change. This is to be done through the State determined NDCs with a potential to review and increase the commitments after 5 years.

The Paris Agreement is in no way a perfect document. It has been criticized for having a low temperature target in view of growing global emissions. The bottom-top approach of the Agreement has also been criticized for allowing States to have very safe NDCs which would most likely not lead to attainment of the collective aim of reducing emissions. This position was exemplified with Nigeria where the country's NDC mirrors an almost identical maintaining of the status quo.

The need for increased global commitment and a stronger willingness to take a hard-line position on climate governance cannot be overstated for the attainment of human preservation. States, as the main implementation agents, play a huge role in the success of climate change governance. The next chapter aims to examine how States view and have combatted to global problem of climate change.

CHAPTER 5 – ADOPTING AN ENVIRONMENTAL SUSTAINABILITY APPROACH TO CLIMATE CHANGE GOVERNANCE: COMPARATIVE ANALYSIS OF STATE ACTION

5.1 Introduction

Following the multifaceted approach to climate change governance subscribed to in this thesis, the previous chapter examined the development of the global governance on climate change. This involved tracing the development of climate change governance in the international scene and highlighting the different international governance initiatives, from the UNFCCC of 1992 to the Paris Agreement of 2015. The examination showcased a slow but steady increase in the adoption of an environmental sustainability approach to global climate change governance.

The evaluation also emphasized the position of States as the main implementation agents of climate change governance. To this end, this present chapter aims to move the discussion to the national level. This will take the form of showcasing how the issue of climate change is viewed by developed countries, the Global North, and developing countries, the Global South. The examination will focus on the perception of the two groups, to the adoption of a hardline, environmental sustainability focused approach to tackling the problem of climate change.

This will lead to a comparative analysis of how climate change is viewed and addressed by a developed country, the United Kingdom, and how it is viewed and addressed by a developing country, Kenya. Both countries are specifically selected due to their track record of subscribing to environmental sustainability legal steps to climate change governance. The examination of both countries is done with the aim of, not only comparing with the situation of Nigeria, but

also to highlight possible legal steps Nigeria may adopt to combat climate change. The position in Nigeria will be analysed in more detail in the next chapter.

This chapter will showcase how different factors influence the perception countries have and their stance on climate change governance. Even though not all groups of developed and developing countries subscribe to the same governance stance, this examination will hopefully show why some States are more open to adopting an environmental sustainability approach in comparison to others. This will begin with a discussion of the different positions in the Global North and the Global South, on the issues of climate change and environmental sustainability.

5.2 Climate Change and Environmental Sustainability: North-South Dichotomy

The development of a national stance to combat climate change, has heavily stemmed from steps and actions carried out internationally. The international regimes that have specifically been developed to govern climate, show a growing recognition of the seriousness of the climate change problem. This has been evidenced by the increased frequency of global climate conferences; socio-political movements; and the global governance initiatives increasingly adopting an environmental sustainability approach to climate governance.

Despite this growing global sense of urgency, there still seems to be a level of disconnect or lack of urgency on the part of most States. Lack of political will and an unwillingness to prioritize an environmental protection attitude over an economic based approach, has led to States opting for safe and, sometimes, underwhelming national climate governance commitments which have had little to no positive influence on reducing global emissions. The argument can therefore be made that, for there to be any level of progressive climate governance, States need to fully buy into adopting an environmental sustainability approach to climate change governance.

The importance of States in the governance of climate change was also highlighted by Marcello Di Paola and Dale Jamieson¹⁰¹³ who state that, even though climate change governance has been spearheaded internationally, States are still the primary implementation agents. James Skea¹⁰¹⁴, one of the IPCC co-chairs on the working group on mitigation and a contributor to the 2018 and 2019 IPCC reports, agrees with this assertion. He believes recent IPCC reports have been aimed at bringing to the notice of governments the urgent need to reduce emissions so as to ensure average global temperatures are kept below 1.5°C.¹⁰¹⁵

He goes on to state that even though this will require a great shift in how things globally operate, he believes with improvement in science, the target temperature is achievable.¹⁰¹⁶ The caveat according to him, lies in the will of the political class.¹⁰¹⁷ This goes in line with the general belief that any international initiative without State action would most likely fail. A problem which Ruchi Anand¹⁰¹⁸ opines affects all international law related issues. Thomas Franck¹⁰¹⁹ believes international laws and initiatives are and will constantly be grappled with the issue of enforceability and fairness.

Enforcement, or what Mary O'Connell¹⁰²⁰ refers to as 'States willingness to comply', is hard to institutionalize and usually has to come from the willingness of States. She believes

¹⁰¹³ Marcello Di Paola and Dale Jamieson, 'Climate Change and the Challenges to Democracy' (2018) 72(2) University of Miami Law Review 374.

¹⁰¹⁴ Jonathan Watts, 'We have 12 years to limit Climate Change catastrophe, warns UN' (The Guardian, 8 October, 2018) https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report> accessed 13 August 2019.

¹⁰¹⁵ ibid.

¹⁰¹⁶ ibid.

¹⁰¹⁷ ibid.

¹⁰¹⁸ Anand (n 665) 1.

¹⁰¹⁹ Thomas M. Franck, Fairness in International Law and Institutions (Clarendon Press 1995) 5.

¹⁰²⁰ Mary Ellen O'Connell, 'Enforcement and the Success of International Environmental Law' (1995) 3(1) Indiana Journal of Global Legal Studies 47.

international environmental laws, more specifically, are only as effective as the willingness of States to adopt and apply the said laws nationally.¹⁰²¹ The problem of enforcement in international environmental law is also supported by Jutta Brunnée¹⁰²² who states that compliance, based on a State's political and social willingness, is what is in existence. She believes there is a huge proportion of commentary and authorship on a State's willingness to comply with international laws and less so on international enforcement mechanisms, which might take us to the unchartered realms of questioning a State's sovereignty.¹⁰²³

Apart from the issue of enforceability, the issue of fairness has also been a constant point of discussion for policy makers and academics dealing with global environmental problems especially the issue of climate change. This particular concept has been heavily linked and discussed with other concepts like justice,¹⁰²⁴ equity,¹⁰²⁵ equality¹⁰²⁶ and even morality,¹⁰²⁷ especially in writings and discussions relating to governance of climate change.

Encapsulating all these different associated concepts into the discussion and development of a fair approach to the governance of climate change has not been straightforward. Shi-Ling Hsu,¹⁰²⁸ when writing on the position of fairness in the general study of environmental law, states that fairness can be broadly understood in three ways. Firstly, fairness can be understood

¹⁰²² Jutta Brunnée, 'Enforcement Mechanisms in International Law and International Environmental Law' in Ulrich Beyerlin, Peter-Tobias Soll and Rüdiger Wolfrum (eds), *Ensuring Compliance with Multilateral Environmental Agreements: A Dialogue between Practitioners and Academics* (Brill 2006) 1.
¹⁰²³ ibid 2.

¹⁰²¹ ibid 48.

¹⁰²⁴ Mark Stallworthy, 'Environmental Justice Imperatives for an Era of Climate Change' (2009) 36(1) Journal of Law and Society 55.

¹⁰²⁵ Robert Kibugi, 'Mainstreaming Sustainable Development into National Climate Change Responses: Assessing the Legal Options to Reinforce Equity' in Oliver Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds), *Climate Change: International Law and Global Governance: Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft mbH 2013) 601.

¹⁰²⁶ Abeysinghe and Arias (n 650) 235.

¹⁰²⁷ Fairbanks (n 88) 58.

¹⁰²⁸ Shi-Ling Hsu, 'Fairness versus Efficiency in Environmental Law' (2004) 31(2) Ecology Law Quarterly 303.

as it relates to equality.¹⁰²⁹ This means that benefits enjoyed from polluting the environment should be accompanied by an equal burden to protect it.¹⁰³⁰

As it relates to climate change governance, this can be interpreted to mean that all emitters of greenhouse gases should be given the correspondingly equal responsibility of reducing the level of emissions in the atmosphere based on the amount emitted by them. Due to the peculiarity of climate change, there has been an attempt to capture the concept in global governance, under this definition of fairness, in the form of the principle of Common but Differentiated Responsibility.

This principle recognizes that there is a common burden on all States to reduce the level of emissions in the atmosphere, but the level of the burden is not to be shared equally.¹⁰³¹ A fair result can also mean placing a higher level of climate change burden on the developed States, due to the great benefits they have enjoyed from past high levels of emission.¹⁰³² This interpretation of fairness also relates to the present differentiation in the capacity of States to address and adapt to the issue of climate change.¹⁰³³

Sandra Fairbanks¹⁰³⁴ opines that developed States, as a result of past and present high levels of emissions, have had a head start to development in comparison to their developing country counterparts. This gives them an increased level of capacity to mitigate and adapt to climate change. The argument can therefore be made that fairness can mean placing a moral obligation on developed countries to take a higher climate change governance burden due to their historical emissions and the resultant benefits they have enjoyed.

¹⁰²⁹ ibid 313.

¹⁰³⁰ ibid.

¹⁰³¹ Abeysinghe and Arias (n 650) 237.

¹⁰³² ibid.

¹⁰³³ Mayer (n 72) 90.

¹⁰³⁴ Fairbanks (n 88) 60.

The second interpretation of fairness, as stated by Shi-Ling Hsu¹⁰³⁵, is the position that believes placing the burden to combat climate change retroactively would be unfair and should be avoided. This version of fairness aligns with the first version of fairness to the extent that it holds that those who benefit from climate change should also carry the equivalent burden of reducing emissions. The version however limits the burden to the present day emissions and does not extend to historical emissions.

This has been the stance of the USA and some other developed countries throughout the climate change negotiations. They believe it will be unfair to expect them to carry more burden based on the actions of previous generations.¹⁰³⁶ Simon Caney¹⁰³⁷ captures this position by stating that it will be unfair for present generation of people, in developed countries, to be expected to pay for the sins of previous generations. He believes they should not be held accountable for actions they could not control.¹⁰³⁸

The third and final interpretation of fairness, as opined by Shi-Ling Hsu¹⁰³⁹, is fairness seen as a grounds for retributive justice. This interpretation closely relates to tort law in the sense of holding those responsible for emissions as wrong doers and tortfeasors who should automatically be expected to carry more burden. This interpretation of fairness does not out rightly specify if historical emitters should be held culpable.¹⁰⁴⁰ It is however very closely related to the Polluter-Pays Principle which holds that the larger amount of greenhouse gas emissions emitted by a country the larger the burden placed on the country to combat climate change.¹⁰⁴¹

¹⁰³⁵ Hsu (n 1028) 316.

¹⁰³⁶ Simon Caney, 'Cosmopolitan Justice, Responsibility and Global Climate Change' (2005) 18(4) Leiden Journal of International Law 760.

¹⁰³⁷ ibid.

¹⁰³⁸ ibid.

¹⁰³⁹ Hsu (n 1028) 318.

¹⁰⁴⁰ ibid 319-320.

¹⁰⁴¹ Mayer (n 72) 74-75.

It can therefore be safe to assume that this interpretation would subscribe to a universal standard wherein the level of emission of a country will determine the burden placed on the country not minding whether or not the country is developed or developing. For example, a developing country like Nigeria, whose main revenue source, crude oil, is a source of greenhouse emissions, would be expected to carry an equal amount of burden in line with its level of emissions, irrespective of the country's economic status.

The various interpretations of what would be considered fair, in line with the global governance of climate change, is highly connected to a State's economic, social and environmental outlook. Developing countries would expectedly believe a fair governance of climate change would be represented by the developed countries taking a huge amount of burden on the grounds of present day capacity and historical emissions. These countries might even add that they should also be given the right to emit so as to speed up their own development as well.

Most developed countries, on the other hand, would most likely interpret fairness to mean a situation where all parties are given a proportionate burden in line with their levels of emissions with no extra burdens given on the grounds of historical emissions.

This discussion of fairness further highlights the role States play, and how their positions and views can affect their disposition towards taking a hard-line view to governing climate change. The responsiveness of these primary implementation agents can be linked to each country's view on how climate change should be fairly governed; the degree by which this super wicked problem affects the country; and the capacity the county has to properly mitigate and adapt to it. The variation, in terms of view and capacity, is not limited to climate change governance alone but widely examined in discussions relating to general international governance.¹⁰⁴²

¹⁰⁴² Lemuel Ekedegwa Odeh, 'A Comparative Analysis of Global North and Global South Economies' (2010) 12(3) Journal of Sustainable Development in Africa 338.

These wider discussions on the stance of States in international governance related issues, has led to a general classification of countries in the world to either the Global North or the Global South. As wealth is generally seen to be synonymous with power, this classification can be said to follow through with that belief by classifying countries based on their level of development, with the wealthy nations signified as the Global North, while the developing and underdeveloped countries, stated as the Global South.¹⁰⁴³

The Global North consists of mostly countries in North America, Europe and Japan.¹⁰⁴⁴ The Global South on the other hand is made up of most countries in Asia, Africa, Latin America and the small Island nations.¹⁰⁴⁵ This classification is by no means full proof because there exists some countries which, historically, would have fallen under a particular category but due to present changing fortunes and growing development, might not be properly placed in the same category.

For example, China has always been categorized as a member of the Global South, but the rate of development and growing international influence might cause a questioning of this categorization. Peter Drysdale and Samuel Hardwick¹⁰⁴⁶ believe the population; strength and speed of economic growth; and the growing international influence of China, might require giving the country a new status.

However, for uniformity in this comparative analysis, this research will align with authors like Gonzalez¹⁰⁴⁷ and Odeh¹⁰⁴⁸ who, in their various write-ups, decided to maintain the general categorisation of States into Global North and Global South, while noting the uniqueness of

¹⁰⁴³ ibid 340.

¹⁰⁴⁴ Carmen G. Gonzalez, 'Bridging the North-South Divide: International Environmental Law in the Anthropocene' (2015) 32 Pace Environmental Law Review 410.

¹⁰⁴⁵ ibid.

 ¹⁰⁴⁶ Peter Drysdale and Samuel Hardwick, 'China and the Global Trading System: then and now' in Ross Garnaurt, Ligang Song and Cai Fang (eds), *China's 40 Years of Reform and Development: 1978-2018* (ANU Press 2018) 545-546.
¹⁰⁴⁷ Gonzalez (n 1044) 409.

 $^{^{1048}}$ Odeh (n 1042) 340.

countries like China. It is worth emphasizing that the grouping and classification of States, based on their level of development, does not equal them having the same views on climate change. The disparity in the views of States, could be seen as far back as the initial negotiations leading to the 1992 Convention, with the different negotiating blocs.¹⁰⁴⁹ Some of these views have carried over to the present day and have not drastically changed.

For example, Global North countries like the US and those found in the EU, have historically, and at present, clashed over the manner in which climate change should be governed. The former have usually subscribed for an economic focused stance of governance while the latter are more open to adopting an environmental sustainability stance to governance.¹⁰⁵⁰ The difference in the position subscribed to is also present with Global South countries.

Nigeria, a country heavily reliant on crude oil, has consistently pushed against taking on aggressive climate change commitments.¹⁰⁵¹ Kenya on the other, whose economy is not heavily linked to a greenhouse emitter, is widely lauded for adopting an environmental sustainability approach to climate change governance.¹⁰⁵² The difference in the political economic position of both developing countries, and how this has influenced their opposing governance stance on climate change, will be a recurring discussion highlighted throughout this thesis.

The following sub-sections would examine the varying positions of States by showcasing the general position in the Global North in comparison with that of the Global South. This examination will involve highlighting the different power and economic positions present in the two groups. The present lack of uniformity within each group, would also be highlighted.

¹⁰⁴⁹ See section 4.3.1 above.

¹⁰⁵⁰ Gonzalez (n 1044) 410.

¹⁰⁵¹ Jonathan E. Ogbuabor and Emmanuel I. Egwuchukwu, 'The Impact of Climate Change on the Nigerian Economy' (2017) 7(2) International Journal of Energy, Economics and Policy 220.

¹⁰⁵² Odunayo O. Olashore, 'Implementation of the International Legal Framework regarding Climate Change in Developing Countries: A review of Nigeria, Kenya and Botswana's Environmental Provisions Governing Climate Change' (2019) 21(3) Environmental Law Review 203.

5.2.1 Perception of the Global North

The Global North consists of countries considered to be the richest in the world, having a generally high economic and social standing. Based on the analysis carried out by the UNDP, which utilized a Human Development Index (HDI) metrics to examine the level of development of countries around the world, countries that fall under this classification usually have a relatively high Gross National Income (GNI) per capital, high education standards, longevity (life expectancy), personal security as well as political freedom.¹⁰⁵³

The 1992 UNFCCC gives a list of some countries that fall under this category under Annex I.¹⁰⁵⁴ Interestingly, the Convention goes further to specifically highlight some other countries from the first list, who are to provide financial and technological assistance to Global South countries.¹⁰⁵⁵ This can, arguably, be said to be a nod to the existence of countries that fall at the top end of the Global North scale. Countries in: Western Europe; North America; Japan; Australia; and New Zealand, are examples of such countries.¹⁰⁵⁶

This sub-section would examine the general perception of these countries to the problem of climate change and their level of acceptance to taking a hard-line environmental sustainability approach to governing the problem. The analysis will begin by showcasing the economic focused background of these countries.

This will lead to an examination of the effects of climate change in the Global North and their governance response to tackle the issue. This will be followed by a showcasing of the different governance positions, in terms of imbibing an environmental sustainability approach to climate

¹⁰⁵³ Lynge Nielsen, 'Classifications of Countries Based on Their Level of Development: How it is done and how it could be done' (2011) WP/11/31 International Monetary Fund (IMF) Working Paper 8.

¹⁰⁵⁴ UNFCCC 1992 Annex I.

¹⁰⁵⁵ UNFCCC 1992 Art. 4(3-5).

¹⁰⁵⁶ UNFCCC 1992 Annex II.

governance. The present position of the US in comparison to that of Western Europe, will also be highlighted.

5.2.1.1 Background: Economic focused governance

The story behind the rise of the present wealthy nations of the Global North is one propelled by an expansionist mind-set rooted heavily in an anthropocentric outlook. Governance, early on, mirrored this anthropocentric outlook to the extent that actions and decisions were heavily geared towards prioritizing economic development. One of the results of this mind-set of growth optimization and economic development, especially in the USA and Western Europe, was the birth of the industrial revolution, around the mid 1800's and early 1900's.¹⁰⁵⁷

The industrialization era was characterized by the development of factories and inventiveness of things like mechanization, electrification and transportation systems. This era was mainly fuelled by three elements: labour; capital; and natural resources, with natural resources being the building block upon which all the other elements thrived.¹⁰⁵⁸ There was a high focus on the extraction of natural resources, like coal and iron, to meet the growing industrial demands, with little to no recourse given to the impact this had on the environment.

This anthropocentric mind-set, which had successfully introduced these countries to some monochrome of development and growth, propelled a drive to expand and enhance their economic status. The drive to find resources and further their development, led to them exploring other territories. This has been largely referred to as expansionism.¹⁰⁵⁹ Expansionism is a political, economic and social position wherein the government of a State seeks to

¹⁰⁵⁷ Atkeson and Kehoe (n 578) 64.

¹⁰⁵⁸ Jacob Salwayn Schapiro and James Shotwell, *Modern and Contemporary European History (1815-1936)* (Houghton Mifflin 1937) 21.

¹⁰⁵⁹ Nakatani Yoshikazu, 'Historical Contexts and Logics of American Expansionism' (2008) 25 Ritsumikan Law Review 123.

maximize her territorial position and optimize her economic status by dominating and exploiting other territories.¹⁰⁶⁰

Expansionism could be through an outright conquering of a neighbouring territory; colonization of different communities; or through the soft and indirect influencing of foreign countries, often referred to as neo-colonialism.¹⁰⁶¹ Colonialism was the form of expansionism most adopted by the some countries in the Global North, especially those in Europe, during their early developmental stage.¹⁰⁶² Renowned historian, Rupert Emerson¹⁰⁶³, defines colonialism as an act carried out by the European nations to dominate and impose their control over indigenous communities around the world.

Hussein Bulhan¹⁰⁶⁴ further expands on this by stating that the colonial European governments aimed to control these indigenous communities of the Global South, mainly in Africa, Asia and Latin America, as an extension of their own governments with the aim of extracting as much economic gain as possible. Colonialism and the general expansionism stance, including the rise of industrialization, fuelled the development of these Global North countries.

The anthropocentric mind-set of these States, early on, was showcased in the focus being on maximizing resources through exploitation of land, labour and natural resources within their territories and the territories of the colonies under their control.¹⁰⁶⁵ This further reiterates the general approach to governance of this Global North countries, being centred on economic growth with little to no care given to environmental protection. Such an aggressive approach, however, came at a cost to the environment with the industrial, mechanized and extractive steps

¹⁰⁶⁰ ibid.

¹⁰⁶¹ ibid.

¹⁰⁶² Sumudu Atapattu and Carmen G. Gonzalez, 'The North-South Divide in International Environmental Law: Framing the Issues' in Shawkat Alam, Sumudu Atapattu et al (eds), *International Environmental Law and the Global South* (CUP 2015) 5.

¹⁰⁶³ Emerson (n 580) 3.

¹⁰⁶⁴ Bulhan (n 581) 240.

¹⁰⁶⁵ Gonzalez (n 1044) 411.

taken by these States leading to massive increases in the amount of greenhouse gases in the atmosphere. This has, and is still, having a very negative impact on States all over the world.¹⁰⁶⁶

5.2.1.2 Climate Change in the Global North

The anthropocentric centred approach to governance did not stop at the early stages of development in these Global North countries. This mind-set has subsisted over the years to be the adopted approach through which the needs of their growing population are being met. Actions and activities that encourage development like: building of industries; deforestation; mechanized means of transportation; extractive industries; and general technological developments, have all negatively contributed to the environment.

These actions propelled development but at the same time silently resulted in high levels of greenhouse gas emissions, which propelled the problem of climate change. It should, however, be noted that the people in the Global North, in their quest for development, were unaware of the ripple effect of their actions to the environment early on. Derek Bell¹⁰⁶⁷ calls this *"excusable ignorance*".¹⁰⁶⁸ He states that, prior to technological and scientific advancement, the Global North countries were *"excusably ignorant of the consequences of their actions*".¹⁰⁶⁹

The result of the 'excusable ignorance', which does not totally exonerate the Global North countries from blame, is greenhouse emissions and a changing climate. Atieno Mboya¹⁰⁷⁰, in support of this argument, believes that the Global North countries delayed in adhering to early scientific findings due to the strong anthropocentric mind-set. He believes this mind-set

¹⁰⁶⁶ Christina K. Harper, 'Climate Change and Tax Policy' (2007) 30(2) Boston College International and Comparative Law Review 414.

¹⁰⁶⁷ Derek Bell, 'Global Climate Justice, Historical Emissions, and Excusable Ignorance' (2011) 94(3) The Monist: Morality and Climate Change 391. ¹⁰⁶⁸ ibid.

¹⁰⁶⁹ ibid 393.

¹⁰⁷⁰ Mboya (n 155) 52.

resulted in continued unsustainable activities and increased greenhouse gas emissions, which is increasingly making the earth inhabitable.¹⁰⁷¹

Early signs of the earth trending towards being inhabitable, especially in these Global North States, can be seen with increased floods, sea level risings, artic ice melts, wild fires, heat waves, typhoons and droughts.¹⁰⁷² For example, in some parts of the US, climate change has propelled a domino effect wherein rise in sea levels has negatively impacted vegetation and tree life.¹⁰⁷³ Some ecologists have attributed the death of trees and impacted vegetation in wetland areas, to increases in salt levels as a due to rising sea levels.¹⁰⁷⁴ There have also been hurricanes in some other parts of the USA, floods in some parts of the UK and record temperatures in some other Global North countries which resulted in wild fires.¹⁰⁷⁵

Strides in technology and an increased understanding of the global environment, especially in these Global North countries, has resulted in an improved appreciation for the need to govern the problem of climate change. Even though these countries have led the global community in the research and governance of climate change, there is still an absence of uniformity on the approach to be taken in governing the problem.

5.2.1.3 Different Governance positions in the Global North

The variation in the governance positions subscribed to by the different countries of the Global North, on the legal approach to deal with the climate change problem, hinges on the political will of the State and less on their economic status. This is not minding the fact that most global

¹⁰⁷¹ ibid.

¹⁰⁷² ibid.

 ¹⁰⁷³ Moises Velasquez-Manoff, 'As Sea Levels Rise, so do Ghost Forests' (The New York Times, 8
October,2019) < https://www.nytimes.com/interactive/2019/10/08/climate/ghost-forests.html?te=1&nl=morning-briefing&emc=edit_NN_p_20191009§ion=whatElse?campaign_id=9&instance_id=12949&segment_id=17
708&user_id=7b3eb82e4651ae7a49de6acaed37b19c®i_id=71146706ion=whatElse> accessed 8 October
2019.
¹⁰⁷⁴ ibid.

¹⁰⁷⁵ Merrill (n 159) 232.

governance and scientific strides, on climate change, have largely been led by countries in the Global North. The non-uniformity amongst these set of countries, has been evidenced in the global negotiations on the governance of climate change.¹⁰⁷⁶

It was highlighted, in the previous chapter, that some Global North countries are more willing to take a hard-line environmental sustainability approach to climate change governance than others. While some other countries are unwilling to disrupt their anthropocentric-economic first stance, and wish to stir the global climate governance in a way that is not too onerous on them.¹⁰⁷⁷ This disparity among the Global North countries, on the manner in which climate change should be governed, is perfectly exemplified with the EU countries and USA.

EU countries, all through the various global climate change governance negotiations, have usually pushed for the adoption of an environmental sustainability approach to be adopted. They subscribe to adhering to clear timelines and ambitious targets as a way of reducing global emissions. This was exemplified in negotiations leading to the 1992 UNFCCC, where the EU had advocated for more stringent emission targets for fellow Global North countries.¹⁰⁷⁸

The same position was voiced during the negotiations leading to the formation of the 1997 Kyoto Protocol.¹⁰⁷⁹ In both instances, the EU was unsuccessful in taking leadership of international climate change governance and stirring it towards having an environmental sustainable outlook and becoming less focused on an anthropocentric economy-first mind-set. In both instances, the US played an instrumental role in making the EU's position largely unsuccessful.¹⁰⁸⁰

¹⁰⁷⁶ See section 4.3.1.

¹⁰⁷⁷ Rory Horner, 'Towards a new Paradigm of Global Development? Beyond the Limits of International Development' (2020) 44(3) Progress in Human Geography 415.

¹⁰⁷⁸ Sebastian Oberthur and Claire Roche Kelly, 'EU Leadership in International Climate Policy: Achievements and Challenges' (2008) 43(3) The International Spectator 36.

¹⁰⁷⁹ ibid. ¹⁰⁸⁰ ibid.

During the UNFCCC negotiations, the US, under the Umbrella Group negotiating bloc, made a case for adopting flexible market based mechanisms to combat climate change so as to ensure their economic positions were largely unaffected.¹⁰⁸¹ They rejected the EU negotiating bloc's call for the adoption of an approach that prioritizes environmental protection by the developed countries.¹⁰⁸² There was a repeat of this difference in position, amongst the EU countries and the US, in the negotiations leading to the creation of Kyoto Protocol.¹⁰⁸³ The result of this round of negotiations was a document full of compromise.

It consisted of emission targets for developed countries, in favour of the EU stance, to be achieved through flexible economic mechanisms, in line with the USA's position.¹⁰⁸⁴ The US, under the leadership of President Bill Clinton, had committed to adopting the Kyoto Protocol, acknowledging the need for Global North countries to take a stronger stance for there to be a chance of successfully governing climate change.¹⁰⁸⁵ This sentiment was not shared by the US Senate who viewed the Kyoto Protocol as an international initiative posing a serious threat to the country's the economic growth.¹⁰⁸⁶

The next US President after Clinton, George W. Bush, echoed the position of the US Senate and added that US was not going to partake in global climate change governance if developing countries were still unrequired to commit to emission reduction actions.¹⁰⁸⁷ A possible trend can be drawn from the negotiations establishing the two major global climate governance initiatives.

The EU countries appear to be willing and open to taking a hard-line approach to climate change governance. The US, on the other hand, appears to prioritise economic growth and has

¹⁰⁸¹ Betsill (n 411) 116.

¹⁰⁸² Yamin and Depledge (n 89) 42.

¹⁰⁸³ Gupta (n 609) 40.

¹⁰⁸⁴ Sands, Peel et al (n 197) 309.

¹⁰⁸⁵ Mayer (n 72) 42.

¹⁰⁸⁶ Gupta (n 609) 42-43.

¹⁰⁸⁷ Betsill (n 411) 120.

been seen to push back on global initiatives they deem might be detrimental to their anthropocentric driven mind-set. As was seen with the pledge by Clinton, the political leadership in the US, or any other country, can affect the county's willingness to take a certain climate governance position. In the build-up to the present global climate governance initiative, the Paris Agreement, States, led by EU countries, understood this and set out to create a more environmental sustainability governance initiative which could be passed by executive order.¹⁰⁸⁸

The motivation for this was seen with the then US President, Barack Obama, during the Cancun negotiations, pledging to take strides to reduce the US emissions.¹⁰⁸⁹ The current administration of Donald Trump shows the negative possibility of having an anthropocentric economic centred leadership, through his act of pulling the US out of the Paris Agreement.¹⁰⁹⁰ The present position can lead to asking: why are the EU countries more willing to take a more aggressive, environmental protectionist stance to combating climate change unlike the US who are ready to take little to no action regarding climate change.

There is no straightforward answer to this question. For example, both countries largely practice a capitalist economic system, which professes the maximization of profit over and above everything else.¹⁰⁹¹ However, a slight argument can be made that there exists different levels of intensity in the capitalism practiced by these countries. This argument aligns with the view of international economist, Beata Farkas¹⁰⁹², who believes the capitalist political-economic position found in the US, is more intense than what is found in most European

¹⁰⁸⁸ Ogbumgbada (n 20) 321.

¹⁰⁸⁹ Mayer (n 72) 45.

¹⁰⁹⁰ ibid 46.

¹⁰⁹¹ Dorothy Grace Guerrero, 'The Limits of Capitalist Solutions to the Climate Crisis' in Vishwas Satgar (eds), *The Climate Crisis: South African and Global Democratic Eco-Socialist Alternatives* (Wits University Press 2018) 30.

¹⁰⁹² Beata Farkas, 'Quality of Governance and Varieties of Capitalism in the European Union: Core and Periphery Division?' (2019) 31(5) Post-Communist Economies 565.

countries. He believes the socialist and communist structured background of some of these European countries, plays a part in there being a somewhat mild version of capitalism.¹⁰⁹³

Based on this point, the argument can be made that the ultra-capitalist nature of the US, makes it less open to adopting any position, like an environmental sustainability approach to climate change governance, which may derail or affect its economic position. Dorothy Guerrero¹⁰⁹⁴ echoes this position by stating that the resistance of the US to climate change governance, is because capitalism relies heavily on fossil fuel emissions. She adds that the heterogeneous societal structure and an economy highly powered by greenhouse emissions, plays a huge part in the US resistance to change.¹⁰⁹⁵

The European countries on the other hand, especially those in Western Europe, are seen to be more willing to refocus their position from a solely economic focused governance to one which promotes environmental protection, in view of combating climate change. The homogenous social structure and the less intense mode of capitalism practiced in these countries, might also play a part in their willingness to change. Joanna Caytas¹⁰⁹⁶ agrees with this assertion by stating that European countries have shown, in recent history, a willingness to enact comprehensive environmental laws and have been viewed as global leaders in the renewable energy sector.

Linking up to the argument that the level of capitalism subscribed to by a country, plays a role in the stance it takes to combat climate change, is the issue of attitude and knowledge. It is a safe conclusion to make that those with little knowledge of an issue or those with little incentive to act on an issue, usually end up not acting on it. This assumption can also be made of climate change wherein those with little to no education of the issue or those that feel it might be too

 $^{^{1093}}$ ibid 574 – 575.

¹⁰⁹⁴ Guerrero (n 1091) 30-31.

¹⁰⁹⁵ ibid 31.

¹⁰⁹⁶ Joanna Diane Caytas, 'The COP21 Negotiations: One Step Forward, Two Steps Back' (2018) 19(1) Consilience: The Journal of Sustainable Development 4.

expensive to act, might choose to take a stance that distances them from actually taking a meaningful stand against climate change.

The grounds for this assumption is found in the result of a survey carried out in 2014 by a group of social researchers where they discovered that high historical and present day emitters, like the US, ranked amongst the least concerned of the issue of climate change.¹⁰⁹⁷ It is worth noting that the study had no reason for why the EU countries ranked amongst the highest concerned with the issue of climate change. With the level of general development and education present in both groups of countries, the conclusion can be made that an understanding of the problem of climate change does not necessarily translate to an attitude to take action.

Where the attitude of the political class and the policy makers are geared against adopting an environmental sustainability stance, there will be little to no climate friendly action being prioritized.¹⁰⁹⁸ One cannot fully state that the US, because of the attitude of the political class, will always remain unresponsive to climate change actions and choose to take an economic-first approach.

This is because the general understanding of the problem and the level of concern given to climate change is always on the high. The truth remains that for there to be progressive climate change governance, Global North countries, who are also amongst the highest emitters, would have to be fully invested in adopting an environmental sustainable stance to combating climate change.

 ¹⁰⁹⁷ Anne K. Armstrong, Marianne E. Krasny and Jonathon P. Schuldt, *Communicating Climate Change: A Guide for Educators* (Cornell University Press 2018) 22.
¹⁰⁹⁸ ibid 23.

5.2.2 Perception of the Global South

The Global North countries are widely seen as the countries with the economic clout needed to combat climate change. Global South countries, on the other hand, consist of mostly poorer countries who are generally considered to be lacking, in comparison to their Global North counterparts. The Global South countries are mainly found in: Africa; Asia; Latin America; and Oceania. They are mostly marginalized politically, with relatively high levels of poverty.¹⁰⁹⁹

Some of these countries have been referred to as Third World countries or underdeveloped countries in light of their lack of wealth and their previous subjugation to colonial rule.¹¹⁰⁰ More recent writings have however termed these group of countries as Global South countries in light of them gaining independence from colonial rule and generally seen as countries in political and economic transition.¹¹⁰¹ These countries are still heavily associated with poverty; low standard of living; high illiteracy levels; and weak institutional governance.¹¹⁰²

For climate change purposes, the reference is first made in the 1992 Convention of these group of countries. The Convention classified these countries as non-Annex I parties consisting of developing countries and Small Island countries.¹¹⁰³ Examples include Nigeria, Kenya, China, India and Jamaica. Global governance on climate change has historically required little to no governance commitments from these Global South countries in view of their limited economic and social development.

¹⁰⁹⁹ Nour Dados and Raewyn Connell, 'The Global South' (2012) 11(1) Contexts 12.

¹¹⁰⁰ Odeh (n 1042) 340.

¹¹⁰¹ ibid.

 ¹¹⁰² Arie M. Kacowicz, 'Globalization, Poverty, and the North-South Divide' (2007) 9(4) International Studies
Review 568-570
¹¹⁰³ UNFCCC 1992 Art. 4.

There is also the subtle view, shared by most of these Global South countries, that the global governance on climate change should be largely placed on the Global North countries due to their level of development and their historical contributions to global emissions. This view can arguably be said to have, largely, been retained by most of the Global South countries by virtue of the fact that they have taken little to no national action to govern climate change. The apparent unwillingness to adopt an environmental sustainability approach to governing climate change, nationally, by most of these countries, can be attributed to a plethora of factors.

One of such glaring hampers to the adoption of this stance, common to most Global South countries, is poverty. High poverty levels and widespread underdevelopment, has made taking an environmental focused governance approach, unattractive to these countries. This is not helped by weak institutions and general ineffective governments. The lack of development also translates to a lack of education and needed knowledge-base to mitigate and adapt to the problem of climate change.

A more detailed discussion on the different factors hampering the adoption of an environmental sustainability approach to national climate change governance, will be discussed in the next chapter. This will be done with Nigeria as the focus country, showcasing the factors common to most Global South countries and unique to Nigeria.

The plethora of hampers, or shortcomings, delimitating these Global South countries from adopting an environmental sustainability approach to national climate change, can arguably be linked to their level of development, as compared to their Global North counterparts. This fact therefore makes the proposition of allowing Global South countries time to develop, both economically and socially, without the extra burden of climate governance, a somewhat viable one. This thesis, however, takes the position that all States, irrespective of their level of development, need to imbibe some level of hard-line governance, nationally, for humanity to stand a chance of combating climate change. Recommendations for Global South countries, in view of adopting such an approach, will be discussed in chapter seven of this thesis. The following subsections would show, in more detail, why Global South countries are relatively apprehensive towards adopting a hard-line stance to climate governance nationally. This will involve a discussion of the fragmented past of these countries and their resistance towards adopting an environmental focused stance to governance over an economic focused approach, nationally.

5.2.2.1 Background: Fragmented Past

The wide margin in the level of growth and development between the Global South countries, compared to their Global North counterparts, has been a very puzzling one. The World Bank Group, in a 2019 publication, states that those that are considered extremely poor, are mostly living in the Global South.¹¹⁰⁴ To put this in context, in a research carried out by the World Bank in 2015, it was found that there are about 736 million people living in extreme poverty with about half of them, 413 million, situated in Sub-Saharan Africa.¹¹⁰⁵

This is incredibly higher than what is found in the East Asian and Pacific region, with 47 million people, or in Europe and Central Asia, with 7 million people, living in extreme poverty.¹¹⁰⁶ The publication goes on to state that if this trend in Africa continues, by 2030 about 9 in 10 people may be considered to be extremely poor.¹¹⁰⁷ Sadly enough, half of these 736

¹¹⁰⁴ Elizabeth Howton, 'Understanding Poverty' (World Bank Group, October 2019)

<https://www.worldbank.org/en/topic/poverty/overview#1> accessed 29 October 2019.

¹¹⁰⁵ ibid.

¹¹⁰⁶ ibid.

¹¹⁰⁷ ibid.

million extremely poor people, were found to be living in 5 Global South countries: Bangladesh, Democratic Republic of Congo, Ethiopia, India and Nigeria.¹¹⁰⁸

The history of these countries has, however, not always been one synonymous with extreme poverty. In the myriad of possible reasons put forward by different scholars on the possible reasons why these Global South countries are not as developed as their Global North counterparts, the historical connection to colonialism and slavery has been one of the most consistent. These countries were previously made up of different communities thriving economically and politically.

Economist Daron Acemoglu, Simon Johnson and James Robinson,¹¹⁰⁹ in their joint research, believe as far back as year 1500, the Mughals in present day India and the Incas in present day Colombia, were very developed. They believe that, prior to the colonial period, these communities and those found in North Africa, were thriving and developing at their own pace.¹¹¹⁰ The development attributed to these communities was based on communal institutions that advocated for a more unilateral distribution of wealth and reliance on agriculture.

Colonialism and slavery, has regularly been attributed for stunting the development of these Global South countries. Renowned Nigerian writer, Wole Soyinka, was once quoted saying the underdevelopment of Africa can be traced to this *"twin evils… inflicted by the Western world"*.¹¹¹¹ He believes these momentous events dislodged the existing communal political, social, economic and technological institutions existing in the continent, which had been the bedrock of the continent's development.¹¹¹²

¹¹⁰⁸ ibid.

¹¹⁰⁹ Daron Acemoglu, Simon Johnson and James A. Robinson, 'Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution' (2002) 117(4) The Quarterly Journal of Economics 1231.

¹¹¹⁰ ibid 1235.

¹¹¹¹ Emmanuel Oladipo Ojo, 'Underdevelopment in Africa: Theories and Facts' (2016) 41(1) The Journal of Social, Political and Economic Studies 91. ¹¹¹² ibid.

Sambit Bhattacharyya¹¹¹³ also agrees that colonialism and slavery, instituted by some Global North countries, resulted in the underdevelopment of the Global South countries. He believes this underdevelopment is still being felt now.¹¹¹⁴ The agrarian and communal institutions which thrived prior to colonialism and slavery, were largely made desolate due to the incursion of the Global North countries, who were focused on extraction of human and raw materials for the growth of their own industries.

Apart from the restructuring of institutions, the Global North countries, not minding the complexities of the different cultures, amalgamated different communities in the Global South to ease their governance over these communities. This was exemplified with Nigeria wherein, under the colonial rule of the UK, 250 different ethnic groups with separate cultural affiliations, were amalgamated into a single country now called Nigeria.¹¹¹⁵

The argument can therefore be made that the fragmented history of the Global South is one filled with early communal development halted by slavery and colonialism. There existed different separate communities which were combined together to form countries consisting of people with different identities and no clear uniform voice. It almost seems that the developmental process of these Global South countries came to a complete stop during the colonial era because even in the international realm, these countries all but existed as an extension of their Global North rulers.

This conclusion was further echoed by an African scholar, Ikechukwu Emeh¹¹¹⁶, who argues that the Global South, which he refers to as the Third World, all have a common history of underdevelopment tied to economies and political institutions devoted to extracting raw

¹¹¹³ Sambit Bhattacharyya, 'The Historical Origins of Poverty in Developing Countries' in David Brady and Linda M. Burton (eds), *The Oxford Handbook of the Social Science of Poverty* (OUP 2016) 274. ¹¹¹⁴ ibid.

¹¹¹⁵ Ojo (n 582) 75.

¹¹¹⁶ Ikechukwu Eke Jeffry Emeh, 'Dependency Theory and Africa's Underdevelopment: a Paradigm Shift from Pseudo-Intellectualism: the Nigerian Perspective' (2013) 1 International Journal of African and Asian Studies 116.

materials for the developed world. The interpretation of this, in light of the discussions relating to climate change, showcases that the early stage of these Global South countries, especially prior to the period of independence from colonialism, was very much tilted towards being an extension of the Global North countries.

This explains why most writers¹¹¹⁷ view historical emissions solely caused by the Global North countries, because most of the countries in the Global South, in the early years, could arguably be said to have been none existing. The nonexistence is by virtue of them not having political and economic institutions run by them and free from external control. This nonexistence ended when the Global South countries began to enjoy independence from colonial rule.

The era of independence for most of these Global South countries, marked a time of rebirth and the striving for new development and new institutions. This rebirth, upon attaining independence, marked a mix of developing their agrarian roots while also finding ways to become industrialized. The foundation of the rebirth was however very shaky due to the fact that most of these Global South countries were characterized with high levels of poverty, an ever growing population and undeveloped institutions.

All these underlying problems accentuated the willingness to adhere, to a limited extent, to the development path of the Global North countries of maximizing economic gain over environmental protection. This stance has been evidenced by a strong willingness to aggressively exploit and extract resources for the purpose of exportation and revenue generation.¹¹¹⁸ Despite such an aggressive stance, the Global South nations have also suffered great levels of corruption and political disruptions which has not helped their development aspirations.¹¹¹⁹

¹¹¹⁷ See Mayer (n 72) 27 and Betsill (n 411) 118.

¹¹¹⁸ Emeh (n 1116) 116.

¹¹¹⁹ Ojo (n 1111) 92.

The conclusion can be made that the fragmented past of these Global South countries, coupled with them being largely, at present, lacking in development, has led most of these countries to deprioritize taking an environmental sustainability stance to climate change governance. This is due to a mind-set geared towards attaining economic development over and above anything else.

5.2.2.2 Climate Governance: Emission Inspired Growth over Environmental Sustainability

The significance of highlighting the economic history of the majority of these Global South countries is to help give context to the pillar of sustainable development most of these countries have gravitated towards. The economic and political history of these Global South countries, coupled with their present societal and environmental situations, has been very instrumental in their general perception and stance on sustainability and climate governance.

The economic disadvantage which plagues the Global South countries, in comparison to their Global North counterparts, affects how they adapt and mitigate against the effects of climate change. Due to their fragmented history and a trail of political instability, these Global South countries account for a high population of the global poor, with failing and subpar amenities.¹¹²⁰ This disadvantaged position also intensifies the effects of climate change in these countries, due to the lack of technological expertise or institutions effective enough to adapt or mitigate against the problem.

The social, political and economic position of these countries has largely influenced their stance on global issues. Global South countries have historically pushed for global agendas that prioritize poverty alleviation, and environmental protection is mainly viewed as a way to safeguard agriculture production and clean water supply.¹¹²¹ Most Global North countries, on

¹¹²⁰ Gonzalez (n 1044) 408. ¹¹²¹ ibid 409.

the other hand, do not necessarily need to push for such agendas due to their technological and economic advancement. This is why the latter group of countries have usually taken the lead in governance discussions calling for the prioritization of global environmental issues.¹¹²²

The global agenda pushed for by Global South countries has also influenced the approach these countries have taken on climate change governance. They have historically advocated for a global governance regime which promotes economic growth for themselves while welcoming the adoption of hard-line environmental sustainability approaches for their Global North counterparts. This position follows the belief that Global South countries need assistance in developing and building up the capacity of their institutions to become effective in combating climate change.

There is also the belief that the Global North countries, apart from spearheading historical emissions, have the highest capacity to take the lead in reducing global emissions and supporting Global South countries. Authors like Paul Chinowsky and Carolyn Hayes¹¹²³ believe Global South countries lack the needed infrastructures to cater for their citizenry which also makes them ill-equipped to mitigate against the extreme effects of climate change or actively partake in the combating of the problem. Most of these countries have a high population, but lack adequate amenities and infrastructures to meet the needs of the people.

This is why majority of these countries would rather subscribe to a form of governance that allows them maximise their economic potential, industrialise and build infrastructures, almost in line with, to a certain level, adopting the early steps taken by the Global North countries.¹¹²⁴ This means that most of the Global South countries would prefer to be given the opportunity

¹¹²² ibid.

 ¹¹²³ Paul Chinowsky, Carolyn Hayles et al, 'Climate Change: Comparative Impact on Developing and Developed Countries' (2011) 1(1) the Engineering Project Organization Journal 69.
¹¹²⁴ Gonzalez (n 1044) 409.

to emit greenhouse gases to achieve development, leaving the governance of climate change to their Global North counterparts.

Nigeria is a classic example of a Global South country in a precarious situation. The country, like most Global South countries, started life, after colonial rule, fuelled by agricultural exports to sustain its economy.¹¹²⁵ The discovery of crude oil, in 1956, was seen as a welcomed economic boost. It fast became the main source of the country's revenue.¹¹²⁶ Crude oil extraction and gas flaring, have however been earmarked as high contributors of greenhouse gas emissions.¹¹²⁷ Consequently, the main economic source of Nigeria, which the country aims to utilize in combating its extreme poverty, is one of the main negative propellers of climate change.

This has led scholars like Gozie Ogbodo and Ngozi Stewart¹¹²⁸ to state that, even though Nigeria is a signatory to all the climate change governance initiatives, there is an unspoken bias towards prioritizing economic growth and development. They believe the high social and economic deficiencies in the country, make it less willing to adopt an environmental sustainability approach to climate change governance.¹¹²⁹ This position is very typical, even though the degree varies from country to country, amongst other Global South countries. They are economically deficient and their institutions are, mostly, inefficient to govern the climate change problem.

Apart from trying to cater for the needs of their people, they would ideally want to develop their capacity to adapt and govern climate change properly. Most of these Global South countries are also usually located in areas that stand to be more grossly affected by the effects of climate change unlike other regions of the world. There is a fear, which is already playing

¹¹²⁵ Oladayo Nathaniel Awojobi and Jonathan Tetteh, 'The Impacts of Climate Change in Africa: A Review of the Scientific Literature' (2017) 5(11) Journal of International Academic Research for Multidisciplinary 40. ¹¹²⁶ Friday (n 9) 33.

¹¹²⁷ Kvoto Protocol 1997 Annex A.

¹¹²⁸ Ogbodo and Stewart (n 29) 17.

¹¹²⁹ ibid.

out, that Small Island nations would suffer more typhoons and floods due to climate change; extreme heat in already warm regions; and droughts in regions already battling water issues.¹¹³⁰ It is worth pointing out that the threat suffered by most of these Global South countries, and the issue of historical emissions, has prompted them to actively partake in the international governance of climate change with the aim of placing pressure on the Global North countries to be more active.

They also look to the Global North countries for economic and technological support, which would enable them effectively adapt and mitigate against the effects of climate change. The result of this support has been evidenced in a number of these countries passing and proposing to pass laws that mirror taking a more hard-line view to combating climate change. This would however come easier to some countries more than others. This analogy is best exemplified with the cases of Kenya and Nigeria.

The political economic disposition of Kenya can be said to be one that views the environment as a form of cultural heritage. This is seen with the economy being driven mainly by tourism and exportation of agriculture. The fact that the economy is not one greatly driven by a greenhouse emitter, and the natural affinity for the political class to be open to protecting their heritage (the environment), has made it somewhat easier for Kenya to adopt an environmental sustainability approach to governing climate change nationally.¹¹³¹

The same cannot be said for a country like Nigeria, whose political economic disposition can be likened to a mono-economy, where there is a strong reliance on the oil and gas industry. This means that all political and governance decisions made in Nigeria are, more often than

¹¹³⁰ Olivia Serdeczny, Sophie Adams et al, 'Climate Change Impacts in Sub-Saharan Africa: from Physical Changes to their Social Repercussions' (2016) 15(8) Regional Environmental Change 1

https://climateanalytics.org/media/ssa_final_published.pdf accessed 2 November 2019.

¹¹³¹ Christopher Todd Beer, 'Climate Justice, the Global South and Policy Preferences of Kenyan Environmental NGOs' (2014) 8(2) The Global South 87.

not, geared towards safeguarding the oil and gas sector. Which invariably means, in comparison to a country like Kenya, Nigeria may most likely be less open to adopting an environmental sustainability approach to governance. This is due to the fear of the hard-line governance approach potentially affecting the country's reliance on the oil and gas sector, a celebrated global source of greenhouse gases, as its main revenue earner.

Evidence of this is seen with the fact that the country, being a signatory to the different global governance initiatives to combat climate change, has not taken any meaningful national legislative action.¹¹³² The stance of Nigeria, which is to prioritise an economic governance approach over an environmental sustainability approach, is arguably the most adopted stance taken by most Global South countries. There is the drive to attain economic growth and development for themselves while pressurizing Global North countries to take the lead in climate change governance.

5.3 Adoption of an Environmental Sustainability Approach to Climate Change Governance in a Global North and Global South State

The above discussions, relating to the dichotomy between the Global North and South countries, shows that the economic position of a country plays only a part in the climate governance stance subscribed to by a country. Global North countries, due to their economic clout and their role in historical emissions, have been largely expected to take the lead in climate change governance. This is however not the universal position amongst all Global North States with countries like the US, preferring to maintain an anthropocentric economic-

¹¹³² Ogbodo and Stewart (n 29) 23.

first approach to governance. Global South countries, on the other hand, would prefer not to have to partake in the governance of climate change.

They would rather wish to follow the blueprint of their Global North counterparts in attaining development by focusing on emission producing industries to fuel their growth. Without adequate support to govern climate change, the Global South countries may have the notion that their Global North counterparts are almost hindering them from attaining development, by advising them against emitting greenhouse gases. This is all in the name of fighting an environmental war, climate change, they did not even start.

Scholars like Imrana Iqbal and Charles Pierson¹¹³³ have supported this argument stating that Global South countries will not abandon practices they believe will ensure economic development, even if it degrades the environment, just because the Global North led international community exhorts them too. This is aptly exemplified with the case of a country like Nigeria who would most likely not abandon crude oil production and exploration, its main revenue earner, solely on the grounds that it is a great source of greenhouse gases.

Iqbal and Pierson¹¹³⁴ also argue that Global North countries should take the lead in climate change governance due to their level of development. Meaning a prioritization of an environmental sustainability approach to climate governance and provision of support to Global South countries so as to enable them become self-sufficient enough to combat the problem.¹¹³⁵ They further add that this does not absolve total responsibility from the Global South countries.¹¹³⁶ The justification for this is due to the seriousness of the climate change problem which requires a global governance effort.

¹¹³⁴ ibid 16. ¹¹³⁵ ibid.

¹¹³³ Imrana Iqbal and Charles Pierson, 'A North-South Struggle: Political and Economic Obstacles to Sustainable Development' (2016) 16(2) Sustainable Development Law & Policy 17.

¹¹³⁶ ibid.
Some countries have recognised the need to adopt this view on climate change and have taken to utilizing an environmental sustainability approach to climate change governance. The UK and Kenya stand as examples of Global North and Global South countries, respectively, which fall under this bracket. Both countries, despite their economic differences, have made some considerable strides in the governance of climate change.

In line with the overarching aim of this thesis, which is to set out legal environmental sustainability governance steps for Nigeria to adopt in the governance of climate change, the following subsections will showcase some legal steps adopted by the UK and Kenya, in their governance of climate change. This will serve as the background study of the steps taken by these countries which will be further highlighted in chapter 7 of this thesis, in line with developing the legal steps adoptable by a country like Nigeria. This will be done in full consciousness of the possible differences these countries have with a country like Nigeria.

5.3.1 Climate Change Governance in the UK

The UK, amongst all the Global North countries, can arguably be said to be the country with the highest influence on Nigeria. This influence can be traced to the British colonial rule of what is now known as Nigeria, for over sixty years.¹¹³⁷ The colonial influence resulted in Nigeria imbibing parts of the British culture, top of which was the language, English, which is still the primary language of the country. This influence is also evident in the legal system of Nigeria wherein the English legal system introduced into the country, during the colonial era, has become the bedrock of the Nigerian legal system.¹¹³⁸

¹¹³⁷ Foluke Adebukola Osunyikanmi, 'Anglo-Nigerian Relations in the First Twenty-Five Years of Nigeria's Independence: A Critical Analysis' (2019) 6(2) World Journal of Social Science Research 206.

¹¹³⁸ Hakeem Yusuf, 'Nigeria: The Colonial Legacy and Transitional Justice' (2017) Centre for the Study of Violence and Reconciliation 3.

The UK has also played a huge role in global climate change. The UK can be categorised amongst the countries that played a huge part is historical emission of greenhouse gases. More recently, the UK, under the umbrella of the EU, has been playing a pivotal role in pushing for a hard-line approach to global climate change governance. Nationally, the UK has increasingly shown signs of a willingness to adopt an environmental sustainability approach to governing the problem of climate change.

This subsection aims to highlight some key national laws and actions adopted by the UK to combat climate change. This will begin with an examination of the economic background of the country showcasing its role in historical greenhouse emissions.

5.3.1.1 Background: Economic-First Approach to Governance

The UK's economy was built on very strong anthropocentric and economic-first principles. This assertion is backed by the UK's colonial dominance and the prominent role it played during the rise of the industrial revolution. The British Empire, as it was known at the time, utilized colonialism as a way to expand its territory and increase its access to resources.¹¹³⁹ Different communities around the world came under the control of the British Empire becoming sources of human and natural resources.¹¹⁴⁰ It is worth highlighting that most of these communities make up some of the present day Global South nations.

The aggressive economic-first outlook also ensured that the UK played a huge role in the development of the Industrial Revolution. This is because the UK had an edge over other European colonial countries because of the vastness of the colonies under its control. This allowed the UK to have a wide access to labour, natural and capital resources, which fuelled

¹¹³⁹ Richard Price, 'One Big Thing: Britain, Its Empire, and Their Imperial Culture' (2006) 45(3) Journal of British Studies 605.

¹¹⁴⁰ Steve Pincus. 'Reconfiguring the British Empire' (2012) 69(1) the William and Mary Quarterly 63.

the development of industries and the creation of wealth.¹¹⁴¹ There was an aggressive extraction of resources within the UK like coal and iron, while also exploring and importing all manner of resources from colonies under their control.¹¹⁴² This led to the UK contributing to the birth of mechanized innovations like steam engines, industrialization and revolutionizing the transportation industry.¹¹⁴³

The negative impact of the resultant development and economic enrichment enjoyed by the UK and other Global North countries in Europe and North America, was a great increase in the level of greenhouse gases in the atmosphere. Mayer¹¹⁴⁴ buttresses this by stating that over two Tera tons of carbon dioxide (2,000,000,000 tons) were discovered to have been emitted as a result of these early industrial activities. The UK, and other Global North countries, have continued this emission producing activities in line with maintaining and extending their level of development.

The UK's economic-first approach to governance has, however, been changing with the increased scientific understanding of the dangers of climate change and the role of anthropocentric greenhouse gas emissions. The UK, based on this improved understanding, has become very vocal in calling on States to take an environmental sustainability approach to the global governance of climate change. The UK has also taken legal steps, nationally, to govern climate change and reduce its level of greenhouse emissions in line with adopting an environmental sustainability approach to governance.

¹¹⁴¹ Schapiro and Shotwell (n 1058) 21.

¹¹⁴² ibid 21-22.

¹¹⁴³ ibid 23-28.

¹¹⁴⁴ Mayer (n 72) 3.

5.3.1.2 Environmental Sustainability Legal Actions within the UK

The UK can be lauded for being a global leader in the governance of climate change, with the government making commitments mirroring an adoption of environmental sustainability steps aimed at reducing the amount of greenhouse emissions within the country.¹¹⁴⁵ Even before policy makers decided to govern climate change, scientists in the UK have been instrumental in the development of the knowledge and understanding of climate change and the effects of anthropocentric led greenhouse gas emissions.¹¹⁴⁶

In addition to the pressure from the science community, there has also been a growing level of public understanding in the UK about the problem of climate change. This has led to increased public demand being placed on the UK government to take more hard line actions to reduce the level of greenhouse gas emissions.¹¹⁴⁷ Public and scientific demands, plus an increased willingness on the part of the UK government, has led to the adoption of an environmental sustainability governance approach to climate change, as seen with the creation of rules and passing of laws aimed specifically at reducing greenhouse gas emissions.

One of such rules was the Climate Change Levy in 2001¹¹⁴⁸. The Climate Change Levy was introduced by the UK government as a tax on gas, electricity, solid fuels and liquefied petroleum gas supplied to businesses and public sectors.¹¹⁴⁹ The ultimate aim of the levy is to discourage and reduce the reliance on greenhouse gas emitting energy sources.¹¹⁵⁰ The Climate Change Agreements¹¹⁵¹, which was first introduced in 2001 and renewed in 2013, was another

¹¹⁴⁵ Michael Hutchinson and Isabelle Laborde, 'Cap and Trade: The View from the United Kingdom' (2012) 26(4) Natural Resources & Environment 40.

¹¹⁴⁶ Ann Phoenix, Janet Boddy, et al, *Environment in the Lives of Children and Families: Perspectives from India and the UK* (BUP 2017) 3.

¹¹⁴⁷ Nick Pidgeon, 'Public Understanding of, and Attitudes to, Climate Change: UK and International Perspectives and Policy' (2012) 12(1) Climate Policy 86.

¹¹⁴⁸ The Climate Change Levy (General) Regulations 2001, reg 1.

¹¹⁴⁹ John McEldowney and David Salter, 'Environmental Taxation in the UK: the Climate Change Levy and Policy Making' (2015) 28 Denning Law Journal 38.

¹¹⁵⁰ ibid 40.

¹¹⁵¹ Climate Change Agreements (Administration Facilities) Regulations 2012.

government initiative also aimed at encouraging businesses to utilize lower emitting energy sources.

The UK government took things a step higher by enacting a Climate Change Act in 2008. This made them the first country, in the world, to put in to force a long term binding mitigation and adaptation framework specifically aimed at governing climate change.¹¹⁵² This act received a plethora of positive reviews with some scholars calling the action *"historic"*¹¹⁵³. The UK was viewed as a front runner in how a national government could show its intention to effectively govern climate change through the adoption of an environmental sustainability approach by enacting the Climate Change Act.¹¹⁵⁴

Through this Act, the UK set out to achieve a reduction of its net carbon account by at least Eighty percent (80%) of the year 1990 baseline by the year 2050.¹¹⁵⁵ This is to be achieved through a system of carbon budgeting wherein the Secretary of State sets out a carbon budget for every five years, which legally caps the level of greenhouse gases that are allowed to be emitted within those periods.¹¹⁵⁶ The Act also makes provision for flexibility in amending the targets and timelines, in line with new scientific knowledge on climate change. The timelines can also be amended when new international provisions, relating to climate change governance, have been enacted, to which the UK is a party to.¹¹⁵⁷

The Act sets up a separate agency known as the Committee on Climate Change (CCC) to serve as an independent body advising the UK government on climate change governance.¹¹⁵⁸ The

¹¹⁵³ Matthew Lockwood, 'The Political Sustainability of Climate Policy: the Case of the UK Climate Change Act' (2013) 23(5) Global Environmental Change 1339.

¹¹⁵² Hutchinson and Laborde (n 1145) 40.

¹¹⁵⁴ Sam Fankhauser, David Kennedy and Jim Skea, 'The UK's Carbon Targets for 2020 and the role of the Committee on Climate Change' in Anthony Giddens, Simon Latham, et al (eds), *Building a Low-Carbon Future: The Politics of Climate Change* (Policy Network 2009) 100.

¹¹⁵⁵ Climate Change Act 2008 (UK), s 1.

¹¹⁵⁶ ibid s 4(1).

¹¹⁵⁷ ibid s 2.

¹¹⁵⁸ ibid s 32.

advice relates to: whether or not there is a need to amend the 2050 targets stated in section one of the Act;¹¹⁵⁹ the level of carbon emissions to be budgeted for each five year period;¹¹⁶⁰ the manner in which emissions from international aviation and shipping can be tackled;¹¹⁶¹ to produce annual progress reports to the government;¹¹⁶² and to generally provide advice and assistance to the government in line with the goals of the Climate Change Act.

In practice, all government departments and businesses are required to make decisions in view of the tenets of the Climate Change Act.¹¹⁶³ They are also required to plan in line with the carbon budget prescribed on the advice of the Committee.¹¹⁶⁴ This shows a clear willingness by the UK government to prioritize an environmental sustainability approach in all facets of decision making process within the country, including economic related decisions, so as to ensure the effective governance of climate change and to ensure the self-imposed targets are met.

One of the main criticisms levelled against the Climate Change Act is the absence of an enforcement structure or a specified way to judge if the Secretary of State, and the government as a whole, are ensuring targets are met. This was highlighted by Jonathan Church¹¹⁶⁵ who lauds the Act for being a great leap in UK's climate governance but faults it for not having any stated enforceability mechanisms and affording the Secretary of State with too much discretionary powers. He believes it would be left to the UK courts to interpret the tenets of the Act and possibly police the level of discretion afforded to the Secretary of State.¹¹⁶⁶

¹¹⁵⁹ ibid s 33(1).

¹¹⁶⁰ ibid s 34(1).

¹¹⁶¹ ibid s 35(1).

¹¹⁶² ibid s 36.

¹¹⁶³ Eloise Scotford, Stephen Minas and Andrew Macintosh, 'Climate Change and National Laws across Commonwealth Countries' (2017) 43(3-4) Commonwealth Law Bulletin 325.

¹¹⁶⁴ ibid.

¹¹⁶⁵ Jonathan Church, 'Enforcing the Climate Change Act' (2015) 4(1) UCL Journal of Law and Jurisprudence
¹¹⁶⁶ ibid 114.

^{1010 1111}

This enforceability and discretionary issue was recently tested, in the UK courts, in the case of *Plan B Earth and Others v. Secretary of State for Business, Energy and Industrial Strategy*.¹¹⁶⁷ The case was instituted by Plan B Earth, a charity, to judicially review the powers of the Secretary of State. The charity, at the High Court, stated that the Secretary of State had breached the 2008 Act by failing to amend the 2050 net carbon targets in light of the passing of the 2015 Paris Agreement.¹¹⁶⁸

They argued that the defendants were mandated, by section 2 of the Climate Change Act, to review the 2050 target so as make it more ambitious in line with Article 2 of the Paris Agreement. The Paris Agreement advices member States to aim to limit global temperature increase to 1.5°C above pre-industrial limits.¹¹⁶⁹ The claimants sought a declaratory relief from the Court mandating the defendants to act. They were however not successful, with the Court holding that the defendants had not acted in breach.¹¹⁷⁰

Even though the claimants were unable to legally force the government to review its emission targets, the case served as motivation for the CCC to review the UK's emission targets. This has culminated in a recent report being published by the Committee, recommending the UK increase its environmental sustainability approach by moving from an Eighty percent (80%) net carbon emission reduction by 2050, to net-zero greenhouse gas emissions by 2050.¹¹⁷¹ The report takes into cognisance the different circumstances of the different nations within the UK.

The report states that Wales can attain a Ninety five percent (95%) reduction in greenhouse gas emission by the year 2050; England can attain net-zero by 2050; and Scotland can attain net-

¹¹⁶⁷ [2018] EWHC 1892 (Admin).

¹¹⁶⁸ ibid at para 1.

¹¹⁶⁹ ibid at para 10.

¹¹⁷⁰ ibid at para 13.

¹¹⁷¹ Committee on Climate Change, 'Net Zero: The UK's Contribution to stopping Global Warming' (2019) 8 https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/> accessed 22 November 2019.

zero by the year 2045.¹¹⁷² The report however admits that this can only become achievable if the government strengthens existing emission reduction policies and increases the financing of sustainable energy sources.¹¹⁷³ The UK government, in line with adopting an environmental sustainability governance approach, has committed to passing laws that would promote the countries stance of attaining net zero emissions by 2050.¹¹⁷⁴

The former Prime Minister, Theresa May, in line with this position, stated that the UK played a leadership role during the rise of the industrial revolution.¹¹⁷⁵ She believes the country must also take a global leadership role in ensuring a greener world is attained by taking steps to effectively reduce the amount of greenhouse gases emitted.¹¹⁷⁶ This shows a general perception of the UK's willingness to take an environmental sustainability stance to climate governance in view of reducing its level of emissions.

The example of the UK, in this thesis, serves to show how a Global North country is increasingly taking hardline steps to govern climate change, internally. This position is imbibed with the next subsection with discussion of Kenya as an example of a Global South country adopting hardline steps to govern climate change nationally. It is worth noting that as at the time of carrying out this research, the UK is on the verge of rescinding its membership of the EU. The impact this may have on the level of climate change governance within the UK, is still unknown.

¹¹⁷² ibid 9.

¹¹⁷³ ibid 15.

¹¹⁷⁴ Department for Business, Energy & Industrial Strategy, 'UK Becomes First Major Economy to Pass Net Zero Emissions Law' (2019) https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law> accessed 22 November 2019.

¹¹⁷⁵ Peter Walker, Rowena Mason and Damian Carrington, 'Theresa May Commits to Net Zero UK Carbon Emissions by 2050' (The Guardian, 11 June 2019)

https://www.theguardian.com/environment/2019/jun/11/theresa-may-commits-to-net-zero-uk-carbon-emissions-by-2050> accessed 22 November 2019.

5.3.2 Climate Change Governance in Kenya

Global South countries might not be expected to make the same level of hard-line legal commitments of Global North countries like the UK in combating climate. This is due to the economic disparity between these countries and a drive, on the part of the Global South countries, to fast track their own development. The Global South countries are, however, not oblivious of the danger of climate especially due to the fact that stand to be most impacted by the effects of this 'super wicked' problem.

Knowledge of this has inspired several of these countries to participate and be signatories to the different global governance initiatives on climate change. There is however still some level of hesitation, on the part of Global South countries like Nigeria, to institute governance steps to combat climate change within their countries due to the fear of it impacting their drive to attain economic growth and break free from widespread poverty. Despite this widespread hesitation, Kenya has been famed for taking national steps to govern climate change.

Kenya was one of the first Global South countries to codify a set of national laws specifically aimed at tackling the issue of climate change by passing the 2016 Climate Change Act. This sub-section will examine the legal initiatives taken by Kenya to combat climate change. This will involve a look at the country's profile and key national steps taken by the county to govern the threat of climate change.

5.3.2.1 Country Profile of Kenya

Kenya's history, very similar to that of Nigeria, is highly influenced by the UK. The UK served as the colonial rulers of Kenya, imposing their political, economic and cultural will on the country.¹¹⁷⁷ Kenya gained independence from colonial rule on the 1st of June 1963.¹¹⁷⁸ Similar to Nigeria, lingering colonial influences, like the English legal system and English language, have become part of the Kenyan identity.¹¹⁷⁹ Like most Global South countries, Kenya's post-independence focus was heavily geared towards economic growth and poverty alleviation.

The country sought to maximize available resources to boost its economic status. The main wealth earners for Kenya are agriculture exportation and tourism.¹¹⁸⁰ However, over sixty percent (60%) of Kenyans are still considered extremely poor with a high proportion of people still stated as rural dwellers.¹¹⁸¹ Kenya's reliance on the environment for revenue generation and sustenance, cannot be overstated. The country is located in the eastern part of Africa, with a range of topographies consisting of warm beaches, desert areas, grasslands and forests.¹¹⁸²

The effects of climate change like: extreme weather changes; increased temperature levels; and constant flood threats, have all negatively impacted tourism, health and general livelihood of the Kenyan people.¹¹⁸³ All these negative effects, coupled with a strong reliance on the environment, has propelled the Kenyan government into taking positive legal steps to govern climate change nationally.¹¹⁸⁴

5.3.2.2 Environmental Sustainability approach to Climate Governance

The Kenyan Constitution marks the starting point in understanding the country's approach towards environmental issues like climate change. The Constitution is the grundnorm of Kenya

¹¹⁷⁷ Peter Karari, 'Modus Operandi of Oppressing the "Savages": The Kenyan British Colonial Experience' (2018) 25(1) Peace and Conflict Studies 1.

¹¹⁷⁸ Wabwile (n 52) 51.

¹¹⁷⁹ ibid.

¹¹⁸⁰ Haradhan Kumar Mohajan, 'Poverty and Economic Development of Kenya' (2013) 18(1) International Journal of Information Technology and Business Management 72.

¹¹⁸¹ ibid 81.

¹¹⁸² Olashore (n 1052) 200.

¹¹⁸³ ibid.

¹¹⁸⁴ Collins Odote, 'Public Interest Litigation and Climate Change – An Example from Kenya' in Oliver C. Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds), *Climate Change: International Law and Global Governance* (Nomos Verlagsgesellschaft mbH 2013) 806.

through which all laws, both international and national, gain legitimacy within the country.¹¹⁸⁵ The Constitution states that the government must ensure the environment is respected, by encouraging sustainable management, utilization and conservation of everything relating to the environment.¹¹⁸⁶ The Constitution also empowers the citizens with the right to demand for a clean and healthy environment whenever this right is deemed to be under threat.¹¹⁸⁷

It is therefore reasonable to state, by virtue of the Constitution, that environmental protection is viewed as a human right issue protected under Kenyan law. This environmental sustainability approach to governing the environmental, has shaped the stance taken by Kenya in governing climate change. In line with this, the Kenyan government, in 2010, established the National Climate Change Response Strategy (NCCRS) with the responsibility of ensuring all government actions relating to development, planning and budgeting, are mindful of climate change.¹¹⁸⁸

The Kenyan government truly showed its commitment to adopting an environmental sustainability approach to governing climate change when it enacted the Climate Change Act in 2016. The development of a climate change specific law, by a Global South country, was largely lauded because it showed an openness and willingness by Kenya, a developing country, to promote emission reducing mechanisms even in the face of high levels of poverty and underdevelopment.¹¹⁸⁹

The main purpose of the Act was to serve as a guide to ensure the regulating, implementing and managing of mechanisms aimed at promoting *"climate change resilience and low carbon development for the sustainable development of Kenya*".¹¹⁹⁰ The Act established a National

¹¹⁸⁹ Vivian Atakos, 'Change for the Better' (2016) Climate Change, Agriculture and Food Security
 https://ccafs.cgiar.org/sites/default/files/CCAFS_2016_Annual_Report.pdf> accessed 24 November 2019.
 ¹¹⁹⁰ Climate Change Act 2016 (KEN), s 3(1).

¹¹⁸⁵ The Constitution of Kenya 2010 (KEN), s 2.

¹¹⁸⁶ ibid s 69.

¹¹⁸⁷ ibid s 70.

¹¹⁸⁸ Olashore (n 1052) 201.

Climate Change Council (NCCC) which will be chaired by the President of Kenya.¹¹⁹¹ The NCCC was given the responsibility of ensuring the government, at all levels: take decisions with climate change in mind; oversee implementation of climate change action plans; make policies that promote low carbon emissions; promote nationwide climate change education and awareness; create a climate change fund; and set greenhouse gas emission targets.¹¹⁹²

The Act also places the Cabinet Secretary, in charge of the environment and climate change affairs, as the secretary of the NCCC.¹¹⁹³ In this role, the Cabinet Secretary will: periodically review the climate change action plan; coordinate negotiations relating to climate change; improve public awareness on climate change; and compose a biannual report on Kenya's progress towards achieving low carbon emitting development.¹¹⁹⁴ This shows an environmental sustainability approach to development, wherein the Kenyan government seeks to attain growth through means that ensure low carbon emissions.

The Act can also be lauded for empowering Kenyans with the legal right to institute proceedings against: public institutions; businesses; or private individuals, if their actions "*has or is likely to adversely affect efforts towards mitigation and adaptation*" of climate change.¹¹⁹⁵ The Kenyan Courts are empowered to: make an order preventing the act; compelling the government to act; or awarding compensation to the victim.¹¹⁹⁶

The strength of the Court and the government's steadfastness to maintain an environmental sustainability approach, based on this section, was recently tested in the case of *Save Lamu et al v. National Environmental Management Authority and Amu Power Co. Ltd.*¹¹⁹⁷ The case was instituted by the organization, Save Lamu, alongside some other community groups at the

¹¹⁹⁵ ibid s 23(1). ¹¹⁹⁶ ibid s 23(2).

¹¹⁹¹ ibid s 5.

¹¹⁹² ibid s 6.

¹¹⁹³ ibid s 8(2).

¹¹⁹⁴ ibid.

¹¹⁹⁷ TRIBUNAL APPEAL NO. NET 196 of 2016 (KEN 2016).

National Environmental Tribunal. The subject of the case involved a coal power plant, which would have been the first of its kind in Kenya, scheduled to be built in the County of Lamu.

The claimants challenged the license issued by the National Environmental Management Authority (Environment Authority) to Amu Power Company for the construction of the Lamu Coal-Fired Plant on the grounds that the Environment Authority had not carried out a proper Environment Impact Assessment (EIA) to fully understand the potential impact the construction would have on the environment.¹¹⁹⁸ The Tribunal, in June 2019, ruled in favour of the claimants stating that the Environment Authority was mandated by law to undertake a thorough EIA to assess the environmental and social impact of the plant before issuing a license.¹¹⁹⁹

The Tribunal further applied the precautionary principle in the case stating that the assessment must consider the possible impact the plant may have on climate change, in line with the Climate Change Act of 2016.¹²⁰⁰ The Tribunal revoked the license, stating that Amu Power Company were free to apply for another license only when a thorough assessment had been carried out which took into cognisance Kenya's climate governance stance, as laid out in the Climate Change Act.¹²⁰¹ The judgment is a remarkable show of Kenya's prioritization of environmental and climate change governance in development and societal decisions.

Kenyan lawyer and environmental activist, Rose Birgen¹²⁰², while commenting on the impact of the judgment, believes the case can potentially set a precedence which will force how public and private businesses think, making them more environmentally conscious. She believes the

¹¹⁹⁸ ibid 1-2.

¹¹⁹⁹ ibid 26.

¹²⁰⁰ ibid 44.

¹²⁰¹ ibid 49.

¹²⁰² Rose Birgen, 'Reflections of the Lamu Coal Plant Case' Poverty' (Natural Justice, 25 July 2019) <https://naturaljustice.org/reflections-of-the-lamu-coal-plant-case/> accessed 02 July 2020.

case establishes climate change as an important element the Kenyan government must take into considered in all its dealings.¹²⁰³

The case also reiterates the power of public participation, as provided for under the Act, in ensuring proper climate governance in Kenya. The claimants¹²⁰⁴, mainly made up of private persons and society groups, were able to attain a judgment that revoked the license of an intended coal plant. They served as agents of climate change governance.

Odunayo Olashore¹²⁰⁵ believes the environmental sustainability approach to climate governance taken by Kenya, a developing country, can be viewed in two ways. Due to the high poverty level in Kenya and the lack of widespread scientific advancement, he believes, on one hand, this approach might discourage some companies from investing in the country which might adversely affect the country's level of growth.¹²⁰⁶ On the other hand, he believes Kenya should be lauded for taking such a stance despite the lure of attaining development through cheap unsustainable means.¹²⁰⁷

By prioritizing climate change governance and environmental protection, Kenya is placing itself on a path of development driven by sustainable and climate friendly growth. Kenya's approach to climate change governance, is not the common position amongst Global South countries, but rather amongst the exceptions. It, however, serves as an example of Kenya's understanding of the need for all States to partake in the governance of climate change and the possible legal steps that can be adopted to do so.

¹²⁰³ ibid.

 ¹²⁰⁴ Rirhandu Mageza-Barthel, 'Beyond the State in Sino-African Relations? Situating Civil Society Interactions' in Arndt Graf and Azirah Hashim (eds), *African-Asian Encounters: Creating Cooperations and Dependencies* (Amsterdam University Press 2017) 119.
 ¹²⁰⁵ Olashore (n 1052) 203.

¹²⁰⁶ ibid.

¹²⁰⁷ ibid.

It is worth reiterating that Kenya's economy is not majorly powered by coal emitting industries. The argument can be made that this possibly makes it easier for them to take such hard line steps to combating climate change. Oil, in commercial quantity was discovered in Kenya in 2012.¹²⁰⁸ The first exportation of this new potential source of wealth was done in 2019.¹²⁰⁹ It will be interesting to see how the country navigates this newly discovered wealth source while maintaining its environmental sustainability approach to climate change in the face of widespread poverty in the country.

5.4 Conclusion

The above discussions shows a strong correlation between a country's economic status and its willingness to adopt an environmental sustainability stance to governing climate change. Global South countries lean more towards adopting an economic centred stance while encouraging Global North countries to take the lead on climate governance. This is based on the belief that the Global North countries have the developmental capacity to adopt such a stance coupled with the part their role in historical and present day emissions.

The above analysis also establishes a link between a country's political economic stance to its willingness, or lack of, to adopt an environmental sustainability approach to governance. This is seen to be playing a role in the lack of uniformity amongst Global North countries on the governance of climate change. In line with this, the ultra-capitalist position of the US, can be said to be playing a part in the country being historically vocally against adopting an environmental sustainability approach to climate change governance.

 ¹²⁰⁸ Matt Smith, 'Kenya Enters the Oil Business' (Petroleum Economist, 26 September 2019)
 https://www.petroleum-economist.com/articles/politics-economics/africa/2019/kenya-enters-the-oil-business> accessed 02 July 2020.
 ¹²⁰⁹ ibid.

EU countries like the UK, on the other hand, were seen to have a political economic position which mirrors a milder version of capitalism, in comparison to the one practised in the US. This can arguably be said to be part of the reason why the EU countries have been more open to this approach and have even pushed for global governance targets and timelines in line with this position.

The impact of the political economic position of a country to climate change governance, was also seen with Global South countries. Most Global South countries have taken a position of prioritising economic enrichment to address the myriad of problems within their country. This has meant a widespread resistance to adopting an environmental focused approach to governance within their territories.

This position was highlighted in the mono-economic stance of Nigeria wherein government decisions are highly geared towards safeguarding the country's main economic sector, oil and gas, and an avoidance of anything that may threaten this. Kenya, on the other hand, was seen to practice a political economic disposition which thrives on the environment functioning optimally. This is seen with the country's economic reliance on tourism and agricultural exportation. By virtue of this, Kenya was seen to be more willing to take a hard-line national governance approach to governing climate change.

In line with developing possible legal steps for Nigeria, the UK, representing a Global North country, and Kenya, representing a Global South country, were both examined to highlight the different steps these countries have taken to govern the problem of climate change. These steps and lessons would be highlighted when recommending the possible legal steps Nigeria can adopt to govern climate change in an environmental sustainable way. The next chapter will discuss the Nigerian position in detail, showcasing the lack of climate change governance in the country.

CHAPTER 6 – CLIMATE CHANGE GOVERNANCE AND ENVIRONMENTAL SUSTAINABILITY IN NIGERIA

6.1 Introduction

Having discussed the governance position of the Global North and Global South countries, on climate change and environmental sustainability, in the previous chapter, this chapter will examine Nigeria's stance on the issue. The examination carried out in the previous chapter showed a high, but not definitive, connection between a country's social and economic status with its willingness to adopt an environmental sustainability approach to climate change governance.

It was discovered that despite the growing global consciousness of the danger climate change and the need to adopt a more environmental-protection focused sustainability approach to national governance, not all States are willing to abandon their economic-centred approach to governance. The UK and Kenya were however highlighted and examined as examples of Global North and Global South countries, respectively, who are increasingly adopting a strong version of sustainability in their national governance of climate change.

Both countries have adopted different environmental sustainability approaches to govern climate change and ensure reduced levels of greenhouse gas emissions. The governance approach taken by both countries, showcased in the previous chapter, would serve as foundation steps upon which the overarching aim of this thesis will be achieved. The thesis aims to proffer possible environmental sustainability legal steps Global South countries, like Nigeria, can adopt in their national governance of climate change.

Nigeria is arguably the ideal case study country for what this research is aiming to achieve. The country has been an active participant and signatory to the different global initiatives developed specifically to govern climate change. Nigeria, like most other Global South countries, has been hesitant to imbibe an environmental focused approach in its national governance of climate change problem. There is a fear that this might derail the country's pursuit of economic growth. Nigeria also shares some similar characteristics, like the fragmented history of colonialism and high levels of poverty, with other Global South countries which can arguably be viewed as justifications for the country's hesitation to take a hard-line governance approach.

The colonial incursion of Global South countries like Nigeria, was highlighted in the previous chapter as one of the main factors which contributed to the slow level of development of these group of countries.¹²¹⁰ The colonial influence and the resultant late search for development, in comparison to their Global North counterparts, has impacted how countries like Nigeria have chosen to govern environmental related issues like climate change. The impact of the lack of development is further heightened by high poverty levels. Nigeria, the most populous black nation in the world with over one hundred and eighty million citizens, has more than half of its population living in extreme poverty.¹²¹¹ More on both factors will be discussed in the following sections.

Apart from sharing a fragmented history and high poverty levels with Global South countries, Nigeria's reliance on oil and gas production and exportation, as its prime revenue source, serves as another justification for picking the country as the subject matter of this thesis. The country is constantly ranked amongst the top ten largest producers of oil in the world.¹²¹² This mainstay

¹²¹⁰ Bulhan (n 581) 240.

¹²¹¹ A. A. Idowu, S. O. Ayoola et al, 'Impacts of Climate Change in Nigeria' (2011) 2(2) Iranica Journal of Energy and Environment 145.

¹²¹² Ukoha Ukiwo, 'Nigeria's Oil Governance Regime: Challenges and Policies' in Arnim Langer, Ukoha Ukiwo and Pamela Mbabazi (eds), *Oil Wealth and Development in Uganda and Beyond: Prospects, Opportunities and Challenges* (Leuven University Press 2020) 309.

of the Nigerian economy has however been stated by scientist and globally documented to be one of the major sources of greenhouse gas emissions in the world.¹²¹³

The reliance on this major greenhouse emitter, the petroleum sector, has greatly influenced how both the environment and climate change, have been governed. The mono-economic status of Nigeria has meant that, more often than not, policy and governance decisions have prioritized safeguarding the oil and gas sector. This can be said to be in antithesis of taking a hard-line approach to climate governance, nationally. Nigeria is however not a country totally oblivious of the problem of climate change.

This is evidenced by the fact that the country is a signatory to global initiatives on climate change. The country has also began to experience the numerous effects of climate change. The social and economic status of the country, like most Global South countries, increases the level of vulnerability of Nigeria to the effects of climate change. Examples of the negative effects of climate change playing out in Nigeria is visible with some areas of the country experiencing severe dryness and heat, while some other areas are seen to be experiencing increased erosion and coastal flooding.¹²¹⁴

In line with recommending possible environmental sustainability steps, adoptable by Nigeria, to govern climate change nationally, this chapter will showcase how climate change is already impacting Nigeria. The chapter will begin by examining the evolution of environmental governance in the country. The examination will begin from the colonial era and flow to the country's present position on legislating the environment.

The influence of the petroleum sector, in the political and economic position of Nigeria, will be constantly highlighted. This influence will be discussed and showcased as one of the

¹²¹³ Kyoto Protocol 1997 Annex A.

¹²¹⁴ Nebedum Ekene Ebele and Nnaemeka Vincent Emodi, 'Climate Change and its Impact in Nigerian Economy' (2016) 10(6) Journal of Scientific Research and Reports 4.

different hindrances preventing the Nigerian government from taking an environmental sustainability stance to climate change governance.

6.2 Evolution of Environmental Governance in Nigeria: Economic Gain over Environmental Sustainability

Due to Nigeria's colonial past and the current presence of high levels of poverty, governing the environment has never truly been prioritized within the country. Starting from the time when Nigeria was under the colonial rule of the UK government, little focus was given to creating legislation aimed at governing the environment. The UK government, at the time of colonialism, was highly focused on maximizing their economic gain over and above anything else.¹²¹⁵

This inherent anthropocentric focus shaped how the different colonies were governed with little care given to environmental governance.¹²¹⁶ This economic centred mind-set was carried over to when Nigeria gained independence in 1960. Like most Global South countries that gained their independence from colonial rule, the newly independent Nigeria prioritized economic growth and development in view of ensuring the provision of basic amenities for its citizens.¹²¹⁷

There was also the discovery of oil in commercial quantity in 1956, which further fuelled the country's focus on industrial growth and maximizing its economic potential.¹²¹⁸ All these set the course, early on, for Nigeria to focus heavily on attaining the weak version of sustainable development - economic growth over the other pillars of sustainability. Protecting the

¹²¹⁵ C. N. Ajaebili, 'A Century after Amalgamation: Reflections on History and Nation Building in Nigeria, 1914-2014' (2015) 24 Journal of the Historical Society of Nigeria 96.

¹²¹⁶ ibid.

 ¹²¹⁷ Adebola Ogunba, 'An Appraisal of the Evolution of Environmental Legislation in Nigeria' (2016) 40
 Vermont Law Review 674.
 ¹²¹⁸ Friday (n 9) 33.

environment was mainly seen as a luxury which could derail the country's push for industrial growth.¹²¹⁹

However, in the late 1980s, Nigeria was compelled to acknowledge the need to govern the environment due to an environmental incident which occurred in a remote area of the southern part of the country. It was discovered that toxic waste had been dumped in Koko, Delta State of Nigeria.¹²²⁰ This incident nudged the country into making environmental laws and setting up environmental agencies aimed at introducing governance and bringing focus to an aspect of the country, the environment, previously thought of as a luxury. Following on from this, the country has made strides in environmental governance while still being focused on economic growth.

This subsection aims to discuss and showcase the evolution of environmental governance in Nigeria, highlighting how this has been influenced by the discovery of oil. The evolution of Nigeria's environmental governance will be examined under three stages. The first stage, the Colonial Era, will examine how the environment was governed under the colonial period, spanning from 1900 to 1960.

The second stage, which is the Post-Independence Era, will examine environmental governance under the newly independent Nigeria, spanning from 1960 to 1987. The third and final stage, which is the Environmental Awakening Era, will examine the land mark toxic incident that changed environmental governance in Nigeria. This will flow into an examination of how environmental governance has developed since then. The timeline under examination here is the period between 1987 till date.

¹²¹⁹ Adegoke Adegoroye, 'The Challenges of Environmental Enforcement in Africa: The Nigerian Experience' (Third International Conference on Environmental Enforcement, Oaxaca, April 1994) 43.

¹²²⁰ Gozie S. Ogbodo, 'Environmental Protection in Nigeria: Two Decades After the Koko Incident' (2009) 15(1) Annual Survey of International and Comparative Law 2.

6.2.1 Colonial Era (1900-1960)

The Nigerian Colonial era could be said to have been an ultra-anthropocentric time wherein little focus was given to environmental sustainability. The governance position of Nigeria, in this era, was solely driven by the colonial government situated in the UK. The UK, like most Global North countries at the time, were looking to expand their territory, explore new lands and enhance their economic status.

In 1861, the coastal city of Lagos, in the south-western part of present day Nigeria, came under the control of the UK government.¹²²¹ After which by 1900, the whole pre-colonial Nigerian society became a UK colony.¹²²² The colony was officially given the name Nigeria in 1914 and it remained a UK colony till the country gained independence in 1960.¹²²³ Nigeria, under colonial rule, was mainly viewed as a territorial outpost from where the UK government could import natural, human and raw materials.

Scholars like Rebecca Bratspies¹²²⁴ opine that colonial rule was mainly an instrument geared towards benefiting the Global North colonial masters and not the colonies. On that basis, policies and programs that had the potential of affecting their ability to fully exploit the colony, such as environmental governance, were deprioritized in favour of economic focused policies.¹²²⁵ This was in line with the anthropocentric focused approach of the Global North countries, at the time, wherein the focus was mainly on extracting as much resources from within their territory and also from their colonies, as possible.

¹²²¹ Joseph A. Atanda, Political Systems of Nigerian Peoples Up to 1900 (John Archers 2006) 5.

¹²²² ibid.

¹²²³ Ojo (n 582) 67.

¹²²⁴ Rebecca Bratspies, 'Do We Need a Human Right to a Healthy Environment?' (2015) 13(1) Santa Clara Journal of International Law 46.

¹²²⁵ Ogunba (n 1217) 676.

This buttresses the present day call for historical emissions to be accounted for by countries like the UK and other Global North countries due to the fact that during this era, the Global South colonies existed merely as extensions of their colonial masters. The argument can therefore be made that any greenhouse gas emissions, during the time of colonialism, in the Global South colonies were vicariously made on behalf of their Global North colonial masters. The link to historical emissions, at the time of colonialism, can be rooted to the anthropocentric mind-set of the colonialist at the time.

The anthropocentric mind-set of countries like the UK at the time, meant that all forms of environmental governance, instituted in Nigeria, were done primarily to promote their economic sources, both human and natural, and less about environmental protection.¹²²⁶ It is worth noting that the UK colonial government introduced the Common Law system as a means of governing colonial Nigeria. This system was later adopted by Nigeria after it attained independence.

Through the introduced Common Law system, the UK government introduced a range of laws to govern the country which showcased a focus on economic enrichment, primarily for the UK government, over environmental protection. Examples of such laws were the Minerals Act of 1945 and the Forest Ordinance of 1937, both of which were created to govern how natural resources were mined and explored; and how wood was obtained, respectively.¹²²⁷

In the absence of definitive environmental governance instruments, the UK colonial government also imported some of its own local English legislation and case laws. These imported governance instruments did not directly relate to the environment but had some provisions which could be interpreted to give rise to environmental protection in Nigeria. The

¹²²⁶ Adegoroye (1219) 43.

¹²²⁷ Ogunba (n 1217) 677.

legislation mainly relied on were the Public Health Act of 1917 and the Criminal Code Law of 1916.

The now defunct Public Health Act of 1917, had a very broad scope. This allowed for the possibility of some of its provisions to be interpreted and utilised to regulate water; air; and land pollution, once it affected the health of those within the country.¹²²⁸ The Criminal Code Law of 1916¹²²⁹, which is still applicable in the southern part of Nigeria today, also had a broad scope which allowed for it to be used as a possible instrument of environmental governance. The Law criminalized activities like: dealing in poisonous food articles; fouling of water sources; engaging in activities that may lead to the spread of infectious diseases; and causing air pollution.¹²³⁰

Adebola Ogunba¹²³¹ is of the opinion that the nature of the laws utilized by the UK colonial government in Nigeria, showed an incidental form of environmental governance where the main focus was on safeguarding public health. The reason for this can be attributed to the strong anthropocentric views held by the UK at the time, wherein the environment was interacted with only as a resource centre for man. This meant that there were no clear governance steps, created for Nigeria, specifically aimed at protecting the environment for the intrinsic value it possessed.

Apart from the adopted laws, further environmental governance during this era was achieved through imported English common law cases dealing with tort offences of trespass, public nuisance, strict liability and negligence.¹²³² Even though these cases were not designed to govern the environment, claimants were able to rely on them for matters dealing with strict

¹²²⁸ Muhammed Tawfiq Ladan, 'Recent Trends in Environmental Regulations in Nigeria' (2014) 44(5) Environmental Law and Policy 462.

¹²²⁹ Criminal Code Act of Nigeria 1916 CAP 77 Laws of the Federal Republic of Nigeria 2004 (Herein after Criminal Code Act of Nigeria 1916).

¹²³⁰ ibid.

¹²³¹ Ogunba (n 1217) 677.

¹²³² Olanrewaju Fagbohun, Mournful Remedies, Endless Conflicts and Inconsistencies in Nigeria's Quest for Environmental Governance: Rethinking the Legal Possibilities for Sustainability (NIALS Press 2012) 59.

liability and negligence, for environmental issues that resulted into personal injury. For environmental issues that resulted into property damage, cases on public nuisance and trespass were relied on.¹²³³

One of such landmark English common law cases relied upon was the 1868 case of *Rylands v*. *Fletcher*.¹²³⁴ Here the reservoir constructed on the defendant's land had filtered into the mine owned by the claimant resulting in extensive damage. The Courts established the doctrine of strict liability in the case stating that a defendant can be held liable for damage to another irrespective of his intent.¹²³⁵ This doctrine was applied in colonial Nigeria to deal with cases that involved environmental issues and subsequently became an important precedent, after the country gained independence.¹²³⁶

The use of non-environmental focused laws and English common law cases, as makeshift environmental governance tools, shows, in most parts, a disregard for environmental governance in colonial Nigeria. This followed the theme of most countries at the time wherein focus was placed on economic growth, and environmental governance happened by accident. In colonial Nigeria, the accidental governance came from laws and cases set out to safeguard economic gain and protect public health. This anthropocentric approach to environmental governance was largely maintained in the newly independent Nigeria.

6.2.2 Post-Independence Era (1960-1987)

Nigeria officially gained the right to self-rule, from the UK colonial government, on the 1st of October 1960.¹²³⁷ Like most other Global South countries which gained independence around

¹²³³ ibid 59–60.

^{1234 (1868) 3} LR 330 (HL).

¹²³⁵ ibid.

¹²³⁶ Ogunba (n 1217) 678.

¹²³⁷ Ajaebili (n 1215) 100.

that time, Nigeria was very much focused on economic growth and developing amenities to cater to the needs of this newly independent country. This drive for economic growth coincided with the discovery of crude oil (petroleum) in commercial quantity. The discovery was made in 1956 in Oloibiri, a small community located in the south eastern part of Nigeria.¹²³⁸ This resulted in the relegation of the agricultural sector and an increased focused being placed on the new wealth source, oil and gas.¹²³⁹

The early focus placed on oil, shaped the direction the country took on all forms of governance. Politically and economically, the petroleum sector began to take priority. This meant that governance decisions, even those relating to the environment, were all made to safeguard the oil and gas sector. Gozie Ogbodo¹²⁴⁰ succinctly captures the position of the newly independent Nigeria by stating that environmental laws, made at the time, "*were enacted in direct response to problems associated with the newly industrializing economy and the discovery and processing of oil*".¹²⁴¹ Environmental governance, at the time, focused mainly on the different facets of oil exploration activities and policing any form of pollution that came as a result.

Evidence of this can be seen with the volume of laws made during this era which directly relates to the oil and gas sector. Examples of some of such laws were: Oil Pipelines Act 1956; Hydrocarbon Oil Refineries Act 1965; Oil in Navigable Waters Act 1968; Exclusive Economic Zone Act 1978; and Oil Pipelines Act 1990.¹²⁴² It can be said that anthropocentric approach, in relation to environmental governance, took the form of prioritising the oil and gas sector. Adhering to this approach meant that Nigeria, during this era, was highly focused on

¹²³⁸ Friday (n 9) 33.

¹²³⁹ Ogunba (n 1217) 679.

¹²⁴⁰ Ogbodo (n 1220) 1.

¹²⁴¹ ibid.

¹²⁴² Ogunba (n 1217) 679.

maximizing the oil and gas sector, giving little care to the adverse effects this sector might have on the environment.

It is worth reiterating here that the oil and gas sector has been noted to be one of the main sectors negatively affecting climate change.¹²⁴³ The anthropocentric direction of environmental governance, being one focused on the oil and gas sector, also meant that the environment was not viewed as having any intrinsic value. Laws made to cover issues such as: sanitation; public health; and wild animals, were also used to govern the environment.¹²⁴⁴ It can therefore be stated that, during this era, environmental governance mainly came about accidentally or reactively.

One of such laws, which was not related to oil activities, created in view of addressing an incident, was the Agricultural (Control of Importation) Act of 1964.¹²⁴⁵ The Act was created to promote human safety by attempting to curtail the spread of pests and diseases affecting plants. This was to be done through the barring of agricultural imports such as: plants; soil; seeds; straw; containers; or any other agricultural packaging materials, suspected or found to be carriers of infectious diseases or pests, into Nigeria.¹²⁴⁶

Despite the reactive nature of some of the laws used to govern the environment, there were some other laws made during this era which had an impact in how the environment was governed in Nigeria. Some of such laws include: the Sea Fisheries Act of 1971; the Land Use Act of 1978; the Energy Commission of Nigeria Act of 1979; the Endangered Species (Control of International Trade and Traffic) Act of 1985; and the River Basin Development Authorities Act of 1986.¹²⁴⁷

¹²⁴³ Kyoto Protocol 1997 Annex A.

¹²⁴⁴ Ogbodo (n 1220) 2-3.

¹²⁴⁵ Agricultural (Control of Importation) Act of Nigeria 1964 CAP A13 Laws of the Federal Republic of Nigeria 2004 (Herein after Agricultural (Control of Importation) Act 1964).

¹²⁴⁶ ibid s 6.

¹²⁴⁷ Ogunba (n 1217) 681.

The Sea Fisheries Act of 1971, which has been repealed and replaced by the Sea Fisheries Decree of 1992,¹²⁴⁸ set out to regulate and protect fisheries found within Nigeria's territorial waters, while also regulating the licensing of motor fishing boats.¹²⁴⁹ The Act also sought to curtail aggressive forms of fishing done through explosives or noxious methods.¹²⁵⁰ This law introduced some level of governance to the Nigerian territorial waters.

The Land Use Act of 1978¹²⁵¹ was another important piece of legislation relating to the environment enacted during this era. This was a Decree, enacted when the country was under military administration, which restructured the landholding system in Nigeria making all land to become vested in the Governor of the different States within the country.¹²⁵² Prior to its enactment, the landholding system was such that the local communities owned and controlled their land. The Nigerian government stated, in the run-up to enacting this law, that the diverse landholding systems made it difficult for public and private businesses to acquire land for the purpose of development.¹²⁵³

The new law gave statutory right of occupancy to the land owners including the power to improve and deal with the land based on the consent granted to them by the Governor.¹²⁵⁴ The law can be said to place the protection, ownership and care of the environment mainly in the hands of the government. Rhuks Ako¹²⁵⁵ however believes the law was not made as a means of promoting environmental protection. He believes it was a way of ensuring the federal

¹²⁴⁸ Sea Fisheries Decree of Nigeria 1992 CAP 71 Laws of the Federal Republic of Nigeria 1992 (Herein after Sea Fisheries Decree 1992).

¹²⁴⁹ Sea Fisheries Decree 1992, s 1.

¹²⁵⁰ Sea Fisheries Decree 1992, s 10.

¹²⁵¹ Land Use Act Decree No.6 of Nigeria 1978 CAP 202 Laws of the Federal Republic of Nigeria 1990 (Herein after Land Use Act 1978).

¹²⁵² Land Use Act 1978, s 1.

¹²⁵³ Ogunba (n 1217) 682.

¹²⁵⁴ Land Use Act 1978, s 15.

¹²⁵⁵ Rhuks T. Ako, 'Nigeria's Land Use Act: An Anti-Thesis to Environmental Justice' (2009) 53(2) Journal of African Law 289.

government had full ownership of natural resources, especially oil.¹²⁵⁶ He opines that it protected the government from any future agitations, regarding ownership of this natural resource, by the people in whose land the natural resource was found.¹²⁵⁷

Following this view, the inference may be made that the Land Use Act showcases another example of the anthropocentric economic driven mind-set of the Nigerian government in relation to the environment. The law safeguards the government's economic pursuit while hampering the people's right to environmental justice. This can be said to be playing out in the Niger-Delta area, the main oil producing area of Nigeria, where the people there cannot use the ownership of oil found in their land as a way of ensuring proper environmental governance or wealth creation for themselves. It also shows how most decisions, made at the time, were highly connected to the oil and gas sector,

Another legislation enacted during this era, which relates to the environment, was the Energy Commission of Nigeria (ECN) Act of 1979¹²⁵⁸. The ECN Act established the Energy Commission of Nigeria (ECN).¹²⁵⁹ The ECN was saddled with the function of planning, developing, understanding and regulating the energy field, in all ramifications, in Nigeria.¹²⁶⁰ The ECN is presently composed of government Ministries such as: Petroleum Resources; Power and Steel; Agriculture and Rural Development; Water Resources; and Environment.¹²⁶¹

The creation of the ECN, its stated functions and the range of government Ministries, reiterates the anthropocentric stance of Nigeria on environmental governance. These laws, the ECN Act and the Land Use Act, could be said to signal a position that viewed the environment mainly

¹²⁵⁹ ECN Act 1979, s 1.

¹²⁵⁶ ibid 295.

¹²⁵⁷ ibid 296.

¹²⁵⁸ Energy Commission of Nigeria Act 1979 No.62 as amended by Act No.32 of 1988 and Act No.19 of 1989 Laws of the Federal Republic of Nigeria 2013 (Herein after ECN Act 1979).

¹²⁶⁰ ECN Act 1979, s 5.

¹²⁶¹ ECN Act 1979, s 3(2).

as an instrument for economic development. Which shows a lack of consideration for the adoption of a stance promoting an environmental sustainability approach to governing the environment.

The River Basins Development Authorities Act of 1986¹²⁶² is another piece of legislation enacted during this era which mirrored the anthropocentric approach to environmental governance in Nigeria. The Act established Eleven (11) River Basin Development Authorities, to be situated across the country.¹²⁶³ These Authorities were saddled with the responsibility of developing both underground and surface water resources for the purpose of erosion and flood control.¹²⁶⁴ They were also given the function of creating, managing and supplying water to users within their area of operation for a fee.¹²⁶⁵

The argument can therefore be made that the type of laws enacted, highlighted the incidental mode of environmental governance at the time. This argument is supported by Ijaiya and Joseph¹²⁶⁶ who both believe that laws in this era, not specifically enacted to protect the environment, were mostly used as *"knee-jerk responses"*¹²⁶⁷ to environmental emergencies. This means that environmental governance, during this early period of Nigeria's independence, came about usually as an immediate response to environmental issues affecting the people and not out of a proactive willingness to protect the environment.

This approach taken by Nigeria, during this era, on environmental governance, was very similar to the approach taken by most Global South countries during this time. Kenya, for example, despite the growing recent environment governance successes, had a history of failed

¹²⁶² River Basins Development Authorities Act of Nigeria 1986 No.35 Laws of the Federal Republic of Nigeria 2013 (Herein after River Basins Development Authorities Act 1986).

¹²⁶³ River Basins Development Authorities Act 1986, s 1.

¹²⁶⁴ River Basins Development Authorities Act 1986, s 4(a).

¹²⁶⁵ River Basins Development Authorities Act 1986, s 4(b-c).

¹²⁶⁶ Hakeem Ijaiya and O. T. Joseph, 'Rethinking Environmental Law Enforcement in Nigeria' (2014) 5 Beijing Law Review 306.

¹²⁶⁷ ibid 307.

environmental governance reforms.¹²⁶⁸ This was mainly due to the fact that the Kenyan government, early on, viewed environmental governance as a potential deterrence to economic development.¹²⁶⁹ Kenya, could however be said to have had better success governing the environment due to the underlying position of viewing the environment as a cultural heritage and an economic source.

This was exemplified in the early 1980's, when the Kenyan government took action to replant the forests within its territory. ¹²⁷⁰ Even though this action was beneficial to the protection of the environment, it was however done out of a selfish anthropocentric mind-set to boost the wildlife tourism sector of the country. Such a policy approach, even though anthropocentric centred, means that Kenya has been more open and willing, in more recent years, to adopt an environmental sustainability governance approach to its national environment. This is in line with safeguarding the environment and, by extension, the country's agricultural exportation and tourism sectors.

It is worth highlighting that Nigeria began to participate in global environmental governance initiatives in this era. This began when Nigeria took part in the 1972 United Nations Conference on the Human Environment held in Stockholm, Sweden. Layi Egunjobi¹²⁷¹ asserts that this conference played a role in influencing the Nigerian government to start viewing environmental governance as a nationwide issue and not only a regional one. In view of this, environmental related issues were place under the supervision of a unit called Environmental Planning and Protection Division under the Federal Ministry of Works and Housing.¹²⁷²

¹²⁶⁸ Nicholas Kimani, 'Participatory Aspirations of Environmental Governance in East Africa' (2010) 6(2) Law, Environment and Development Journal 200.

¹²⁶⁹ ibid 207.

¹²⁷⁰ Wanjala S. Nasong'O, 'Environmental Policy and Practice in Kenya: Between Cornucopians and Neo-Malthusians' (2017) 3(1) The International Journal on Green Growth and Development 9.

¹²⁷¹ Layi Egunjobi, 'Issues in Environmental Management for Sustainable Development in Nigeria' (1993) 13 Environmentalist 33.

¹²⁷² Adegoroye (1219) 44.

Subsequently, Nigeria continued participating in different international initiatives on environmental governance.¹²⁷³ The growing awareness of the need to create a national agency to govern the environment led to the failed attempt to establish the Federal Environmental Protection Agency, in 1981.¹²⁷⁴ The inference can be made that Nigeria, like most Global South countries who had also recently attained independence, took a 'needs must' approach to environmental governance. The environment was mainly viewed solely as a resource centre for the country.

6.2.3 Environmental Awakening Era (1987-present)

The lax stance of the Nigerian government, by taking a reactive approach to environmental governance, played out negatively with the Koko toxic incident. This landmark event, which occurred between 1987 and 1988, has been widely credited for waking Nigeria up to a need for proactive governance of the environment. The incident was initiated in September 1987 when an Italian company offered money to a farmer in the small village of Koko, in the Southern part of Nigeria, to dump several tons of hazardous waste on his land.¹²⁷⁵

The toxic waste began to leak into the surrounding environment, endangering the people of the community. Through the media and public outcry, the Nigerian government discovered the incident in June 1988.¹²⁷⁶ The magnitude of the incident, and the manner in which it happened, led to a serious awakening of the Nigerian government to a need for laws and governance specifically set up to protect the environment.¹²⁷⁷ The incident also served as the spark

¹²⁷³ Ogunba (n 1217) 682.

¹²⁷⁴ Adegoroye (n 1219) 44.

¹²⁷⁵ Ijaiya and Joseph (n 1266) 307.

¹²⁷⁶ Adegoroye (n 11) 44.

¹²⁷⁷ ibid.

propelling the country to enact more environmentally focused legislation and governance steps.¹²⁷⁸

This began with the enacting of the Harmful Waste Act¹²⁷⁹ and the Federal Environmental Protection Agency (FEPA) Act¹²⁸⁰, both in 1988, by the then Military government, as immediate responses to the Koko incident. The Harmful Waste Act criminalises all activities relating to the handling, purchasing, transporting, importing and depositing of harmful waste anywhere on the land, air or water within the Nigerian territory.¹²⁸¹ The Act defines harmful waste as any toxic, poisonous, noxious or injurious substance like radioactive emitting nuclear waste.¹²⁸²

Followed closely was the enactment of the FEPA Act. The FEPA Act can, arguably, be said to have showcased Nigeria's growing appreciation of the need to govern the environment at all levels. Starting with the local level, the Act empowered State and Local governments, within Nigeria, with the power to establish their own environmental protection agencies to maintain and ensure good environmental quality in relation to the pollutants within their control.¹²⁸³ To that effect, majority of States have gone on to establish their own environmental protection agencies.¹²⁸⁴ At the federal level, the Act established the now defunct Federal Environmental Protection Agency (FEPA).¹²⁸⁵

¹²⁷⁸ Fabgohun (n 1232) 18.

¹²⁷⁹ Harmful Waste (Special Criminal Provisions, etc.) Decree of Nigeria No. 42 of 1988 as amended by Act CAP H1 of 2004 Laws of the Federal Republic of Nigeria 2004 (Herein after Harmful Waste Act 1988).
¹²⁸⁰ Federal Environmental Protection Agency Decree of Nigeria No. 58 of 1988 as amended by Decree No. 59 of 1992 and Act CAP F10 of 2004 Laws of the Federal Republic of Nigeria 2004 (Herein after FEPA Act 1988) (now repealed).

¹²⁸¹ Harmful Waste Act 1988, s 1.

¹²⁸² Harmful Waste Act 1988, s 15.

¹²⁸³ FEPA Act 1988, s 25.

¹²⁸⁴ Suleiman Iguda Ladan, 'The Environment and Environmental Law in Nigeria' (2007) 3(1) Environmental Watch Journal of Environmental Law 234-235.

¹²⁸⁵ FEPA Act 1988, s 1.

FEPA became the first nationwide environmental protection focused agency in Nigeria. It was charged with the responsibility of protecting and developing the Nigerian environment including progressing sustainable development, environmental initiatives, technology and research.¹²⁸⁶ At the international level, the Act charged FEPA with the duty of liaising with international organisations, on behalf of Nigeria, to gather and study data on the different substances and practices which can ensure progressive ozone protection.¹²⁸⁷

This coincided with Nigeria's growing participation in global environmental governance discussions and the international community's increased acceptance of the climate change problem. As part of FEPA's general environmental governance mandate, the Agency, in 1989, formulated the National Policy on the Environment.¹²⁸⁸ The policy, which is still in place in Nigeria, states that Nigeria will be committed to positively promoting sustainable development, and government decisions will be made in view of environmental concerns.¹²⁸⁹

The policy also set out to increase public awareness and encourage public participation in environmental improvement and protection efforts.¹²⁹⁰ Egunjobi¹²⁹¹ lauded the formulation of this policy, calling it *"the most positive achievement Nigeria has ever recorded in the area of environmental management*"¹²⁹². Despite this high praise, the fact that the policy is soft law and not an enacted law, means that it is not judicially enforceable. This means the viability of the policy is highly subject to the political will of the Nigerian government. Some scholars

¹²⁸⁶ FEPA Act 1988, s 5.

¹²⁸⁷ FEPA Act 1988, s 19.

¹²⁸⁸ National Environmental Standards and Regulations Enforcement Agency (NESREA), 'National Policy on the Environment' https://www.nesrea.gov.ng/wp-content/uploads/2017/09/National-Policy-on-Environment.pdf> accessed 5 March 2020.

¹²⁸⁹ ibid para 1.

¹²⁹⁰ ibid para 2.

¹²⁹¹ Egunjobi (n 1271) 37.

¹²⁹² ibid.

have questioned the policy's effectiveness in influencing the Nigerian government to adopt an environmental sustainability approach to environmental governance.¹²⁹³

Akamabe and Kpae¹²⁹⁴ believe the ineffectiveness of the policy is due to the absence of clear implementation strategies.¹²⁹⁵ They acknowledge, like Egunjobi,¹²⁹⁶ that the policy showcases a position that mirrors an intent to govern the environment in a sustainable manner.¹²⁹⁷ They, however, opine that the lack of legislative backing or specific implementation mechanisms has made the policy ineffective.¹²⁹⁸ This is especially true given the fact that the history of the Nigerian government has shown a high tendency to take a weak approach on environmental related issues.

This does not imply that the Nigerian government did not make improved strides in environmental governance after the formulation of the policy. The growing environmental awakening was signalled by the enactment of novel laws to govern the environment like the Environmental Impact Assessment Act of 1992.¹²⁹⁹ The Act makes it mandatory for public and private businesses, planning on carrying out a project, to appraise the possible impact their project might have on the environment.¹³⁰⁰In 1999, the newly elected Nigerian government enacted a new Federal Constitution.¹³⁰¹

The Constitution became the Grundnorm of Nigeria, wherein all laws made or applicable in the country gain their legitimacy.¹³⁰² The Constitution provides that *"the State shall protect*

¹²⁹³ Ubleble Benjamin Akamabe and Gbenemene Kpae, 'A Critique on Nigeria National Policy on Environment: Reasons for Policy Review' (2017) 3(3) International Journal of Geography and Environmental Management 22.

^{22.} ¹²⁹⁴ ibid 33.

¹²⁹⁵ ibid.

¹²⁹⁶ Egunjobi (n 1271) 37.

¹²⁹⁷ Akamabe and Kpae (n 1293) 32.

¹²⁹⁸ ibid 33.

¹²⁹⁹ Environmental Impact Assessment Act of Nigeria 1992 No.86 Laws of the Federal Republic of Nigeria 2004 (Herein after Environmental Impact Assessment Act 1992).

¹³⁰⁰ Environmental Impact Assessment Act 1992, s 1.

¹³⁰¹ The Constitution of the Federal Republic of Nigeria 1999 (as amended).

¹³⁰² The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 1.

and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria^{*,1303}. With this mandate, the first ever Federal Ministry of Environment was established, in June 1999, "*to ensure effective coordination of all environmental matters*".¹³⁰⁴ The creation of a separate ministry to govern the environment, introduced a more centralised outlook of environmental issues with all the different environmental related Departments and Agencies, including FEPA, coming under the control of this newly formed Ministry.¹³⁰⁵

FEPA's position as the main tool for environmental governance in Nigeria, prior to the formation of the Ministry, had come under criticism.¹³⁰⁶ The Agency could be said to depict Nigeria's stop-start approach to environmental governance. The Nigerian government's hesitation to take definitive environmental sustainability steps in governing the environment, had negatively impacted the effectiveness of FEPA.

Muhammed Ladan,¹³⁰⁷ agreeing with this position, opines that the shortcomings of FEPA mirrored the position of Nigeria. He notes that one of the major shortcomings of FEPA was that the Agency had weak to no powers to enforce environmental laws and regulations.¹³⁰⁸ The lack of enforcement and weak oversight by FEPA led to industrial pollution and other environmental issues, endangering the lives of the citizens and contaminating the Nigerian environment.¹³⁰⁹ The clear ineffectiveness of FEPA prompted the Nigerian government, in 2007, to repeal the FEPA Act and replace it with the NESREA (Establishment) Act¹³¹⁰.

¹³⁰³ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 20.

¹³⁰⁴ Federal Ministry of Environment Nigeria, 'About' http://environment.gov.ng/ accessed 6 March 2020.

¹³⁰⁵ Ogunba (n 1217) 687.

¹³⁰⁶ Fabgohun (n 1232) 25.

¹³⁰⁷ Ladan (n 1228) 461.

¹³⁰⁸ ibid 463.

¹³⁰⁹ ibid.

¹³¹⁰ National Environmental Standards and Regulations Enforcement Agency (Establishment) Act of Nigeria 2007 No.25 Laws of the Federal Republic of Nigeria (Herein after NESREA Act 2007), s 36.
The Act established NESREA to replace FEPA.¹³¹¹The Nigerian government was widely lauded for being self-aware in its establishment of NESREA to replace FEPA, due to the realisation of the latter's ineffectiveness in governing the Nigerian environment. Some scholars have referred to the move as *"a new dawn"*¹³¹² with others stating it was a positive move in ensuring increased environmental enforcement and compliance.¹³¹³

NESREA was charged with the responsibility of developing and protecting the Nigerian environment; ensuring sustainable development of the natural resources within Nigeria; ensuring biodiversity conservation; and enforcing environmental laws, rules, regulations, policies and guidelines.¹³¹⁴ Through the wording of the NESREA Act, the conclusion can be drawn that the Nigerian government tried to pre-emptively avoid the ineffectiveness of the previous Agency, FEPA, by highlighting the enforcement powers of NESREA on any environmental related issues within the country.¹³¹⁵

Despite this broad mandate, NESREA's effectiveness, as the main instrument of environmental governance in Nigeria, has been limited. One of the reasons for this is a lack of adequate funding.¹³¹⁶ The Agency survives on the funds allocated to it by the Nigerian government. Due to the country's stance of prioritising economic gain over environmental protection, minimal support has been given to NESREA to enable it develop its enforcement capabilities and fully perform its functions.

There have also been examples of the government interfering with NESREA's attempt to govern the environment. A good example of this was in 2012 when NESREA planned to reduce

¹³¹¹ NESREA Act 2007, s 1.

¹³¹² Ladan (n 1228) 463.

¹³¹³ Ogunba (n 1217) 688.

¹³¹⁴ NESREA Act 2007, s 2.

¹³¹⁵ NESREA Act 2007, s 7.

¹³¹⁶ Ijaiya and Joseph (n 1266) 315.

the amount of telecommunication masts being built on the grounds of environmental protection.¹³¹⁷ The Nigerian government overruled this to safeguard economic gain.¹³¹⁸ The observation can be made that NESREA was placed in an unenviable position. This is because, as long as the stance of the Nigerian government is one that prioritizes economic gain over environmental protection, even with environmental awareness, NESREA's effectiveness will always be in question.

This unwavering stance is further highlighted in the wordings of the NESREA Act which states that NESREA shall *"enforce compliance with regulations …other than in the oil and gas sector*".¹³¹⁹ This clearly bars NESREA from taking any environmental governance related steps in Nigeria's oil and gas sector. It also serves to reiterate how the oil and gas sector has shaped the governance decisions of the country. As a result, NESREA is powerless in enforcing laws relating to pollution from oil and gas exploration and exploitation. This also means the agency has been hampered from being an instrument of climate change governance as it relates to this greenhouse emitting sector. The position of Nigeria, as it relates to climate change governance, will be discussed in more detail below.

Conclusively, environmental governance in Nigeria can arguably be said to be evolving in the right direction. There is more awareness of a need to protect the environment with the passing of more environmental protection laws and the establishing of environmental governance mechanisms. The issue, however, is that the Nigerian government, like most Global South countries, prioritizes economic development over environmental protection. This is further heightened by the countries prioritization of the oil and gas sector.

¹³¹⁷ ibid.

¹³¹⁸ ibid.

¹³¹⁹ NESREA Act 2007, s 7(g).

The effectiveness of environmental governance initiatives, introduced by Nigeria, are undermined by the country's focus on oil and its affinity to prioritize economic enrichment. The ripple effect of this, is the prevalence of unsustainable practices and plethora of environmental issues in the country due to little nationwide sensitization of environmental laws, weak environmental laws and ineffective enforcement mechanisms. This reality, of being environmentally aware but concentrating on economic development over environmental protection, has affected how the country deals with environmental issues like climate change.

6.3 Effects of Climate Change in Nigeria

Climate change is arguably the biggest environmental issue affecting our planet. The potential impact and threat to global human existence has prompted the global push for a more environmental sustainable stance to climate change governance. Climate change has widely been referred to as a *"delayed harm"*¹³²⁰ where the negative effects are experienced across the world at varying intensities. These effects are however expected to be more pronounced in Global South countries, like Nigeria, due to their economic deficiencies in comparison to their Global North counterparts. In some cases, their geographical composition, makes them more vulnerable.

Nigeria is a classic example of a Global South country whose economic situation and geographical composition, positions the country to be extremely vulnerable to the effects of climate change. Geographically, the country has a very diverse ecosystem consisting of the savannah in the northern part of the country and rainforests and mangroves in the southern part

¹³²⁰ Biber (n 333) 1301.

of the country.¹³²¹ The northern part of the country borders the Sahara while the south borders the Atlantic coast.¹³²²

This means, ordinarily, without the full effects of climate change, the country experiences dry heat in the northern part of the country while the southern part is very susceptible to floods. The increasing effects associated with climate change, makes this unique geographical composition one of the reasons for Nigeria's vulnerability to the problem. The heat and dryness already experienced in the northern part of the country has been heightened due to climate change. This has led to less rain and more heat leading to increased desertification, low crop yield and high mortality rate amongst animals used for breeding.¹³²³

The south of the county is also not spared with climate change causing already wet areas to become damper due to excess rainfall. Coupled with the closeness to the Atlantic, the south of the country has increasingly become more prone to floods negatively impacting habitation, food sourcing and general everyday living.¹³²⁴

These effects are more impactful in Nigeria, in comparison to Global North countries like the UK, due to the lack of adequate institutional frameworks, which might have aided the country in adapting or mitigating against the numerous effects of climate change. Most Global South countries, similar to Nigeria, already suffer from infrastructural problems ranging from: bad roads; inadequate housing; inconsistent to no access to electricity; lack of universal access to clean water; and understaffed and underequipped hospitals.¹³²⁵ These inherent economic

¹³²¹ Olashore (n 1052) 193.

¹³²² Ibid.

¹³²³ Ebele and Emodi (n 1214) 4.

¹³²⁴ ibid.

¹³²⁵ Adegbola Ojo, Nikolaos Papachristodoulou and Samuel Ibeh, 'The Development of an Infrastructure Quality Index for Nigerian Metropolitan Areas using Multivariate Geo-Statistical Data Fusion' (2018) 2(3) Urban Science 1.

problems combined with the ever growing effects of climate change, reiterates the fragility of majority of Nigerians to the problem of climate change.

The fragility of the Nigerian people to the effects of climate change, can further be said to manifest in two general ways: clear effects and incidental effects. The clear effects of climate change refer to the direct manifestation of this global problem, within Nigeria. Some of these type of effects have been highlighted above and are exemplified in Nigeria as: inconsistent weather patterns; excessive rainfall in some parts of the country; acute dryness in some other parts of the country; increased desertification in some already vulnerable areas; and disease outbreaks.¹³²⁶ Incidental effects, on the other hand, can be said to represent the different social, economic and political elements in Nigeria that, in one way or the other, are affected due to the effects of climate change.

These second type of effects are heightened due to Nigeria's developmental deficiencies. For example, the clear effect of climate change in Nigeria is increased inconsistency of weather patterns causing excessive rain in some parts and dryness in some other parts of the country. The detrimental incidental effect of this is felt by the already poor majority of Nigerians who rely heavily on farming and animal rearing as their main source of living.¹³²⁷ Crop yields and grasses for gazing are affected. There is also an increase in endemic and parasitic diseases which will also affect farming and grazing.¹³²⁸

Bad roads and ineffective irrigation systems during times of increased rainfall, have also led to incidental effects like flooding and displacement of people from their homes.¹³²⁹ These effects are not only felt in rural areas with urban centres also becoming more susceptible to flooding

¹³²⁶ Idowu, Ayoola et al (n 1211) 146.

¹³²⁷ Ogbuabor and Egwuchukwu (n 1051) 220.

¹³²⁸ Idowu, Ayoola et al (n 1211) 146.

¹³²⁹ Ebele and Emodi (n 1214) 4.

due to ineffective irrigation and increased rainfall. This is already playing out in the unofficial commercial capital of Nigeria, Lagos, wherein the State stands the risk of fully becoming submerged in water if proper mitigation and adaptation facilities, to combat the effects of climate change, are not put in place.¹³³⁰

Nigeria is clearly a country feeling the effects of climate change. The vulnerability of the country, like most Global South countries, is heightened by the country's geographical composition and the economic deficiencies. This has resulted in there being more incidental effects of climate change due to subpar developmental standards and ill-equipped adaptation and mitigation facilities within the country. Nigeria is not oblivious of the need to govern the climate change problem. The next section will examine whether the country has maintained its hesitant form of environmental governance in its governance of climate change.

6.4 Climate Change Governance in Nigeria

Nigeria, like all countries in the world, is already experiencing the impact of climate change. The growing magnitude of the climate change problem and the threat to global human existence, has led to the increased call on States, irrespective of their economic status, to play the role of primary governance agents in view of effectively combating the problem.¹³³¹ Plethora of scientific findings have reiterated the need for States to adopt an environmental sustainability stance to climate change governance to give humanity a chance of survival.¹³³²

¹³³⁰ ibid 7.

¹³³¹ See section 5.2 above.

¹³³² Leon Sealey-Huggins, "1.5°C to Stay Alive': Climate Change, Imperialism and Justice for the Caribbean' (2017) 38(11) Third World Quarterly 2446.

States need to reduce their emission level and aim for global temperatures to reduce to 1.5°C above pre-industrial levels.¹³³³ For the needed temperature goals to become attainable, Global South countries like Nigeria need to adopt some level of environmental sustainability in how they govern climate change.

This section aims to showcase the status of climate change governance in Nigeria. This will involve a look at the country's position on the major global regimes, which Nigeria is a signatory to, aimed at governing climate change. The dualist nature of the Nigerian legal system in relation to international laws would be highlighted here. This will be followed by a look at the country's national legal position on climate change governance. All through this examination, the influence of the oil and gas sector, to climate change governance, will be highlighted.

6.4.1 Global Climate Change Governance: Nigeria's Position

Nigeria has been relatively active in the global governance of climate change. The country has participated in the various global negotiations on climate change and has also been a signatory to the different major global initiatives created to govern the problem. These global initiatives do not, however, automatically become domestic law in Nigeria.

The dualist nature of the country's legal system requires that international laws must first be domesticated into national law before they can become actionable.¹³³⁴ It is therefore worth understanding Nigeria's legal system as it relates to the domestication of global climate change laws. This discussion will be followed by showcasing the status of climate change governance in Nigeria.

¹³³³ ibid.

¹³³⁴ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 12.

6.4.1.1 Nigeria's Dualist System and Global Climate Governance

There is a growing interconnectedness amongst States to govern increasingly overlapping global issues like climate change.¹³³⁵ International treaties have been used as the main instrument by which States attempt to govern different global issues. The 1969 Vienna Convention on the Law of Treaties¹³³⁶, popularly referred to as the 'treaty on treaties', defines international treaties as written down agreements between States which are governed by international law.

In Nigeria, the Treaties (Making Procedure, Etc.) Act of 1993¹³³⁷ defines international treaties to include conventions, general acts, agreements, acts, modivendi and protocols. The significance of this definition of international treaties, as it relates to global climate change governance, will be explored in more detail below.

A treaty can also be defined as a documented consensual agreement between international parties, that is State and non-State actors, who intend to be bound by the tenets of the agreement in line with international law.¹³³⁸ This gives treaties a superficial resemblance to everyday contracts whereby States agree to be bound by the treaties they sign on to.¹³³⁹ This goes in line with the basic principle of law, *'pacta sunt servanda'*, which states that agreements between parties are binding on them.¹³⁴⁰ The agreements and obligations that arise from the tenets of

¹³³⁵ Babalola Abegunde, 'Reflecting on the Syndrome of Non-domestication of International Treaties in Nigeria: charting the way forward' (2018) 26 Sri Lanka Journal of International Law 149.

¹³³⁶ Vienna Convention on the Law of Treaties 1969 Art. 2 (1)(a).

¹³³⁷ Treaties (Making Procedure, Etc.) Act of Nigeria 1993 No.16 Laws of the Federal Republic of Nigeria 2004 (Herein after Treaties (Making Procedure, Etc.) Act 1993) s 3(3).

¹³³⁸ Abegunde (n 1335) 150.

¹³³⁹ Edwin Egede, 'Bringing Human Rights Home: an examination of the domestication of human rights treaties in Nigeria' (2007) 51(2) Journal of African Law 249.

¹³⁴⁰ Abegunde (n 1335) 150.

the treaties, can constitute a major source of national laws¹³⁴¹ which can be enforced by the citizens of signatory countries.¹³⁴²

In international law jurisprudence, there exists two major approaches adopted by States in reflecting treaties as national law, namely monism and dualism. Monism or the monist system views treaties, once ratified, as automatically part of domestic laws.¹³⁴³ There is no need for any further domestic law to be enacted to give the treaty credence within the country under this system.¹³⁴⁴ This system is applied by most civil law countries in continental Europe.¹³⁴⁵

The dualist system, on the other hand, is such that treaties enacted by a State only become actionable within the State once the State's law making body domesticates it.¹³⁴⁶ Meaning that, treaties must first be incorporated as municipal laws before they can become enforceable within the State. The dualist system is practiced in most Global South countries and amongst common law Global North countries, like the UK.¹³⁴⁷

In Nigeria, the dualist system is provided for by the Nigerian Constitution. The Constitution states that treaties would become domestic law only when the National Assembly, the law making body of Nigeria, passes a law domesticating it.¹³⁴⁸ Which means that even though the government of Nigeria may sign on to a treaty, the obligations attached to such international agreement do not constitute national law until an implementation law is passed or the Nigerian legislature amends an existing law to acknowledge the treaty.

¹³⁴¹ Okeke (n 925) 371.

¹³⁴² Abegunde (n 1335) 149.

¹³⁴³ A. F. M. Maniruzzaman, 'State Contracts in Contemporary International Law: monist versus dualist controversies (2001) 12 European Journal of International Law 310-311.

¹³⁴⁴ Okeke (n 925) 398.

¹³⁴⁵ Egede (n 1339) 279.

¹³⁴⁶ Maniruzzaman (n 1343) 319.

¹³⁴⁷ ibid.

¹³⁴⁸ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 12.

The adoption of this dualist approach, in Nigeria, can be traced to the country imbibing the English legal system of the UK, after colonialism, which requires for the domestication of treaties into national law.¹³⁴⁹ This point was reiterated in the Nigerian Supreme Court in the 1997 case of *Ibidapo v. Lufthansa Airlines*¹³⁵⁰ where Wali JSC stated that "*Nigeria, like any other Commonwealth country, inherited the English common law rules governing the municipal application of international law*"¹³⁵¹.

The Supreme Court of Nigeria in the case of *Abacha v. Fawehinmi*,¹³⁵² reiterated this view by stating that treaties ratified by the Nigerian government only become actionable in municipal Courts once the National Assembly enacts a law to that effect.¹³⁵³ This position has been adopted in the Nigerian Court of Appeal in the case of *Mhwun v. Minister of Health and Productivity*.¹³⁵⁴ Here the presiding Judge, Muntaka Connmassie¹³⁵⁵ stated that a treaty, even if it is ratified, can only be relied upon in Court when it has been enacted by the National Assembly as a domestic law.

There exists some criticism levelled against the application of the dualist system in Nigeria. Scholars like Flora Onomrerhinor¹³⁵⁶ believe countries like Nigeria utilize it as a *"cloak under which… to avoid obligations arising from treaties to which they are signatories"*¹³⁵⁷. Some other scholars have called for the dualist system in Nigeria to either be repealed¹³⁵⁸ or amended¹³⁵⁹ so as to give the citizens the justiciable rights and protection found in the treaties.

¹³⁴⁹ Egede (n 1339) 251.

^{1350 (1997) 4} NWLR (Part 498) 124 (NG).

¹³⁵¹ ibid 150.

¹³⁵² (2000) 6 NWLR (Part 660) (NG).

¹³⁵³ ibid 228.

^{1354 (2005) 17} NWLR (Part 953) (NG).

¹³⁵⁵ ibid 155 – 157.

 ¹³⁵⁶ Flora Alohan Onomrerhinor, 'A Re-examination of the Requirement of Domestication of Treaties in Nigeria' (2016) 7 Nnamdi Azikwe University Journal of International Law and Jurisprudence 17.
 ¹³⁵⁷ ibid.

¹³⁵⁸ C. E. Okeke and M. I. Anushiem, 'Implementation of Treaties in Nigeria: issues, challenges and the way forward' (2018) 9(2) Nnamdi Azikwe University Journal of International Law and Jurisprudence 216.
¹³⁵⁹ Egede (n 1339) 278.

Credence of the criticism levelled against the application of the dualist system in Nigeria can be seen in how the country has handled the different climate change initiatives it has ratified.

It is worth reiterating here that Nigeria includes protocols, conventions and agreements, as international treaties needing domestication to make them applicable law in the country.¹³⁶⁰ This means the different international initiatives on climate change: the 1992 UNFCCC; the 1997 Kyoto Protocol; and the 2016 Paris Agreement, all have to be domesticated before they are viewed as national laws. None of these climate change governance initiatives have been made into national laws by the country's National Assembly.¹³⁶¹

The argument can therefore be made that Nigeria has utilized the dualist system as a way of shielding itself from taking domestic action, in line with the global obligation it is signed to, while maintaining international respectability by being a signatory to the different international treaties. The non-domestication of the climate change treaties also precludes private individuals from using the Nigerian Courts as a way of ensuring public or other private individuals adhere to climate change friendly actions.

Okeke¹³⁶², commenting generally on the enforceability of treaties in Nigeria, believes the domestication of the 1981 African Charter on Human Rights¹³⁶³ in Nigeria, gives the Nigerian citizens a slim chance of creatively enforcing international treaties in Nigerian Courts. He opines that the universality of human rights, allows for courts to interpret national rules to give credence to treaties not yet domesticated, so far it touches the protection of human rights.¹³⁶⁴

¹³⁶⁰ Treaties (Making Procedure, Etc.) Act 1993 s 3(3).

¹³⁶¹ Okeke and Anushiem (n 1358) 216.

¹³⁶² Okeke (n 925) 371.

 ¹³⁶³ African Charter on Human and Peoples' Rights (Ratification and Enforcement) Act of Nigeria 1983 No. 2
 CAP A9 Laws of the Federal Republic of Nigeria 2004 (Herein after African Charter Act 1983).
 ¹³⁶⁴ Okeke (n 925) 371.

The main caveat, however, is that the enforcement must link directly to an abuse of human rights.

This then requires inventiveness, on the part of the citizens, if an attempt is made to enforce climate change obligations found in the different international instruments, on the grounds of human rights. The nature of climate change and the resultant effects of being a delayed harm, makes it hard to pinpoint a specific human right abuse. This therefore makes it imperative for the country to domesticate the international instruments on climate change or enact a climate change national law, to enable effective governance of the problem. The next subsection examines the status of climate change governance within Nigeria.

6.4.2 National Governance of Climate Change in Nigeria

Nigeria is not a country oblivious of the need to govern climate change, as evidenced by the fact that the country has been a signatory to all the main global initiatives that have been created specifically to govern the problem. The country has however taken the same approach it has historically taken to environmental governance into how it has approached governing climate change. This means showing some limited understanding of the need to govern the problem while also remaining hesitant to take a definitive action to govern the problem out of fear of it potentially disrupting their economic source.

A good example of this can be seen with the fact that Nigeria has continually taken actions to safeguard its main revenue source, oil and gas, despite being a signatory to global climate change initiatives highlighting this sector as one of the main industries contributing to global greenhouse emissions.¹³⁶⁵ Olashore¹³⁶⁶ is of the opinion that the economic-first approach of the

¹³⁶⁵ Kyoto Protocol 1997 Annex A.

¹³⁶⁶ Olashore (n 1052) 193.

Nigerian government is affecting how laws relating to environmental protection are created.¹³⁶⁷ It can be added that the country's historical nature of prioritising the oil and gas sector, also affects how decisions are made.

This, in extension, has affected how climate change has been governed and the effectiveness of any proposed climate change initiative within the country. Olubisi Friday¹³⁶⁸ opines that, by virtue of the Nigerian government prioritizing an economic-first approach, lacklustre attempts have been made to govern climate change within the country. He believes the government feigns a blind eye to unsustainable practices by its parastatals, industries and individuals for pecuniary reasons.¹³⁶⁹

One of such unsustainable practices is gas flaring. This is a method by which oil companies, in Nigeria, dispense unwanted gases incidental to the oil and gas exploration process into the atmosphere.¹³⁷⁰ Gas flaring is a major contributor to CO₂ emissions, negatively impacting the climate change process. It is also a source of air pollution which directly endangers the health of the Nigerian citizens.¹³⁷¹ As of 2018, Nigeria was rated as the sixth largest gas flaring country in the world.¹³⁷² This statistic buttresses the argument that the Nigerian government is highly focused on economic gain with the oil and gas sector potentially being a barrier to Nigeria adopting a national environmental sustainability stance to climate change governance.

It will however be unfair to take the position that Nigeria is completely lacking any form of national climate change governance. There are existing national laws, proposed legislation and executive initiatives which, in one way or another, may be interpreted and used as a means of

¹³⁶⁷ ibid 199.

¹³⁶⁸ Friday (n 9) 33.

¹³⁶⁹ ibid 34.

¹³⁷⁰ ibid.

 ¹³⁷¹ Olusanya Anjorin, 'Gas Flaring in Nigeria' (The Punch newspaper, 1 January, 2020)
 https://punchng.com/gas-flaring-in-nigeria/ accessed 14 March 2020.
 ¹³⁷² ibid.

governing climate change in Nigeria. The starting point of any governance discussion in Nigeria is the Nigerian Constitution which legitimises all other laws.¹³⁷³ The Nigerian Constitution states that *"the State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria"*.¹³⁷⁴

This provision, even though not specific to climate change, mandates the Nigerian government to carry out actions that promote the protection of the environment. This leaves the possibility for Nigerian Courts to adjudicate on cases in a way that promotes environmental protection and ensures climate change governance. This position is further fostered in Chapter 2¹³⁷⁵ of the Constitution which provides Nigerian citizens with social justice rights. For example, the Constitution provides that the State should only exploit resources in ways that promote the communal good of Nigerians.¹³⁷⁶

The broad wording of these rights can potentially lead to them being read in a way that promote climate change governance. The Constitution, however, somewhat curtails the Court from having the blanket power to enforce these non-justiciable rights on all issues. The Constitution provides that a social justice right can only be relied on if there exists a national law that gives room for it.¹³⁷⁷ This means that, for example, social justice rights connected to the ratified laws on climate change, cannot become justiciable or enforceable without the National Assembly domesticating them.¹³⁷⁸

This position was reiterated by the Supreme Court of Nigeria in the case of *Attorney General* of Ondo State v. Attorney General of the Federation¹³⁷⁹ wherein it was held that Courts do not

¹³⁷³ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 1.

¹³⁷⁴ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 20.

¹³⁷⁵ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 13-24.

¹³⁷⁶ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 17(2)(d).

¹³⁷⁷ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 6(6)(c).

¹³⁷⁸ Okeke (n 925) 425.

^{1379 (2002) 9} NWLR (Part 772) at 382 (NG).

have a blanket slate in law interpretation and can only enforce a non-justiciable law once it is recognised within a domestic law. The Nigerian Federal High Court, in the 2005 case of *Gbemre v. Shell Petroleum Development Company Nigeria Ltd and others*¹³⁸⁰, showed how the Court can adjudicate on a social justice right relying on an international law that has been domesticated.

This was seen with the domestication of the 1981 African Charter into Nigerian law¹³⁸¹, which made some previously non-justiciable rights become enforceable. The case was instituted, as a human right petition, by the applicants against the defendants on the grounds that their fundamental right to life¹³⁸² and dignity¹³⁸³ had been affected by the defendant's gas flaring activities. The Court ruled in favour of the applicants stating that gas flaring should be stopped and advised that new gas flaring laws were needed to protect the rights of citizens.¹³⁸⁴

The ruling opened up the possibility of governing certain aspects of climate change once there is an established link to an abuse of human rights. Gas flaring by the defendant, which also negatively contributes to climate change, was successfully adjudicated upon in this case due to the negative impact it had on the lives of the applicant. The case also brought into focus the effectiveness of the existing Nigerian law on gas flaring, the Associated Gas Re-injection Act.¹³⁸⁵ The Act allows only oil and gas companies with lawful permission, to flare gases in Nigeria.¹³⁸⁶

The argument can be made that Nigeria's prioritisation of the oil and gas sector and strong economic focus, has made the existence of this law a mere formality. The country is ranked

^{1380 (2005)} FHC/B/CS/53/05; AHRLR 151 (NG).

¹³⁸¹ African Charter Act 1983, Art 1.

¹³⁸² The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 22(1).

¹³⁸³ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 34(1).

¹³⁸⁴ Olashore (n 1052) 199.

¹³⁸⁵ Associated Gas Re-injection Act 1979 CAP A25 Laws of the Federal Republic of Nigeria 2004 (Herein Associated Gas Re-injection Act of Nigeria 1979).

¹³⁸⁶ Associated Gas Re-injection Act 1979, s 3(1).

amongst the worst gas flaring nations in the world.¹³⁸⁷ This is further evidenced by the absence, till date, of a new gas flaring law or a specific legislation to govern climate change in Nigeria.

It is however worth highlighting that there is a 2019 Climate Change Bill in the legislative pipeline. The Bill, which has not been made available to the public, was introduced in the lower legislative body of the country on the 9th of October, 2019.¹³⁸⁸ According the official website of the National Assembly, the Bill is still in the very first introductory stage of the law-making process.¹³⁸⁹ The law-making process in Nigeria usually undergoes debating stages in the National Assembly, after it has been introduced, before the President reviews and signs it into law.¹³⁹⁰ The status of the Bill and its availability, as at July 2020, remains unchanged.

This is not the first time a climate change law has been proposed in Nigeria. There was a Climate Change Commission Bill introduced into the National Assembly in 2010 to create a Climate Change Commission.¹³⁹¹ The Commission would have consisted of departments dealing with: climate science; mitigation; adaptation: and international liaising.¹³⁹² The Bill was never enacted and has since been abandoned. The same fate befell a proposed 2017 Climate Change Bill. The Bill was proposed after the Paris Agreement but was also abandoned.¹³⁹³ There is however no evidence that this Bill ever existed owing to the fact that it is not listed amongst the Bills the National Assembly is considering.¹³⁹⁴

¹³⁸⁷ Olashore (n 1052) 195.

¹³⁸⁸ Federal Republic of Nigeria National Assembly, 'Bill Tracker'

https://www.nassnig.org/documents/bill/10740> accessed 10 July 2020.

¹³⁸⁹ ibid.

¹³⁹⁰ Paul Y. Mbaya, Charas Madu Tella and Raphael Audu Adola, 'The Process of Law Making in a Presidential System of Government: The Nigerian Experience' (2013) 9(2) Asian Social Science 109.

¹³⁹¹ Oluwatoyin O. Ajayi, 'The Nigerian National Climate Change Commission Bill: a review' (2017) 3(1) Ife Journal of International and Comparative Law 100.

¹³⁹² ibid 101.

¹³⁹³ Olashore (n 1052) 198.

¹³⁹⁴ Federal Republic of Nigeria National Assembly, 'Bill Tracker'

<https://www.nassnig.org/documents/bill/10740> accessed 10 July 2020.

In the absence of a clear municipal law aimed at governing climate change in Nigeria, there exists some national laws whose sections may be interpreted to govern the issue of climate change within the country. These are: the NESREA Act; and the ECN Act. The ECN Act establishes the ECN and is focused on the management of the different energy sources in Nigeria.¹³⁹⁵

Even though the ECN Act was not enacted for the purpose of climate change governance, there is a provision in the Act that requires the ECN to explore and recommend new energy sources to the Nigerian government, when necessary¹³⁹⁶. This allows for a slim possibility for the Act to be an instrument of climate change governance. This specific provision can be interpreted to mean that the ECN has a duty to explore sustainable energy sources within Nigeria, like hydro, solar and wind,¹³⁹⁷ to help the country reduce its level of greenhouse emissions.

The NESREA Act is another law that can be linked to the governance of climate change in Nigeria. The Act establishes NESREA as the main environmental governance agency in Nigeria with the mandate to enforce and ensure compliance of national and international rules; laws; treaties; and conventions relating to environmental protection in Nigeria.¹³⁹⁸ This logically means that the Agency is empowered to govern climate change and ensure the country becomes more sustainable in view of promoting environmental protection.

The Agency's powers to govern climate change are however stifled by the fact that Nigeria has not passed any laws on climate change and has done nothing to domesticate the different climate change initiatives it is a party to. The Agency, as has been highlighted earlier, is also hampered by the lack of autonomy from political interference. This means that the

¹³⁹⁵ ECN Act 1979, s 1.

¹³⁹⁶ ECN Act 1979, s 5(i).

 ¹³⁹⁷ Sunday Olayinka Oyedepo, 'Energy and Sustainable Development in Nigeria: the way forward' (2012)
 2(15) Energy, Sustainability and Society 4.
 ¹³⁹⁸ NESREA Act 2007, s 7.

NESREA Act 2007, s

effectiveness of any regulation passed by NESREA¹³⁹⁹, in line with governing climate change, is still dependent on the willingness of the Nigerian government to implement positive climate change action.

Despite the Nigerian government's unwillingness to pass a definitive law on climate change, the government has instituted various initiatives that reference the need to combat climate change. Some of these initiatives are: Nigeria Vision 2020 (Nigeria's development strategy) of 2010; Nigeria Policy on Climate Change 2017; Nigerian Biofuel Incentives 2007; and the Economic Recovery and Growth Plan 2017.¹⁴⁰⁰ The Nigerian government has also created a Department of Climate Change, under the Ministry of Environment, with the aim of ensuring proper nationwide education of the effects and causes of climate change.¹⁴⁰¹

All of the above stated initiatives are executive initiatives and therefore not binding law. Meaning that the effectiveness of these initiatives and steps are determinant on the Nigerian government's willingness to adopt a more hard-line approach to climate change governance. There has however been little evidence to show that these executive steps have influenced the country to adopt an environmental sustainability stance to climate change governance.

The argument can therefore be made that the Nigerian government, like most Global South countries, has a relative understanding of the need to govern climate change nationally but is unwilling to substitute an environmental sustainability approach for its economic focused approach. This perception can be drawn from the fact that Nigeria has not taken any outright or definitive step to combat climate change. This is despite the fact that the country has proposed a new Climate Change Bill and the various executive initiatives on climate change.

¹³⁹⁹ National Environmental Standards and Regulations Enforcement Agency, 'Laws & Regulations' http://www.nesrea.gov.ng/regulations/index.html> accessed 20 January 2020.

¹⁴⁰⁰ Grantham Research Institute on Climate Change and the Environment, 'Nigeria' <https://climate-laws.org/cclow/geographies/130/policies> accessed 2 February 2020.

¹⁴⁰¹ Department of Climate Change http://climatechange.gov.ng/ accessed 2 February 2020.

The track record of the country, as it relates to environmental governance, shows a constant prioritization of economic gain, especially from the oil and gas sector, which tends to undermine the countries willingness to adopt a governance outlook that prioritizes environmental protection. The political economic structure of Nigeria wherein the focus is highly on the petroleum sector, also means that any climate change initiative might be potentially undermined.

This clearly shows that the oil and gas sector has played a role in hampering Nigeria from out rightly adopting an environmental sustainability stance to climate change governance nationally. This point and other factors hampering Nigeria from adopting a hard-line governance approach to proper climate change governance nationally, will be addressed in the next section.

6.5 Hindrances to the Adoption of an Environmental Sustainability Approach to Climate Change Governance in Nigeria

Nigeria's perceived choice of prioritizing economic growth over an environmental sustainability stance to climate change governance, like most Global South countries, is not out of oblivion. Through the above discussions, the various international and national steps taken by Nigeria, show there is a limited understanding of the need to govern the problem of climate change. There is, however, a sense that the government of Nigeria is not ready to commit to a governance approach that might potentially disrupt its reliance on the oil and gas sector.

Some of the factors that can possibly be put forward as reasons hindering Nigeria from taking an environmental sustainability stance to climate change governance are: the country's reliance on oil and gas; high levels of illiteracy and poverty; and corruption and political instability.

6.5.1 Nigeria's Reliance on Oil and Gas

This factor can arguably be said to be the main factor hindering Nigeria from adopting an environmental sustainability approach to climate change governance. The oil and gas sector accounts for about Ninety percent of Nigeria's total export earnings.¹⁴⁰² This main wealth source has also been highlighted to be amongst the main sectors contributing to high greenhouse gas emissions in the world.¹⁴⁰³ The inference can be made that, for Nigeria to take proper steps to govern climate change nationally, the country will need to make changes in its economic structure. This is however not the case.

The Nigeria government has rather shown a tendency to ensure all governance decisions are predicated on the oil and gas sector which directly affects any potential step to govern climate change. This position is buttressed by the fact that the Nigerian government has continuously made steps to safe guard its potential gains from the oil and gas sector. For example, the main environmental governance agency in Nigeria, NESERA, has been precluded, by law, from taking any governance action relating to the oil and gas sector.¹⁴⁰⁴

Another example can be seen with the country's utilization of an arguably obsolete law, the 1979 Associated Gas Re-injection Act, which has been relatively ineffective in policing the high rates of gas flaring in the country. The ineffectiveness of this particular Act was highlighted in the case of *Gbemre v. Shell Petroleum Development Company Nigeria Ltd and others*¹⁴⁰⁵, discussed above¹⁴⁰⁶, with the Courts advising that a new law on gas flaring is needed.

¹⁴⁰² Yinka Omorogbe, 'A Status Report on Climate Change and the Kyoto Protocol in Nigeria' (2006) 2 International Energy Law and Taxation Review 44.

¹⁴⁰³ Kyoto Protocol 1997 Annex A.

¹⁴⁰⁴ NESREA Act 2007, s 7(g).

^{1405 (2005)} FHC/B/CS/53/05; AHRLR 151 (NG).

¹⁴⁰⁶ See section 6.4.2 above.

It is therefore safe to state that Nigeria's strong reliance on the oil and gas industry, seriously hampers the country from effectively adopting a hard-line environmental sustainability approach to governing climate change. With high poverty levels, Nigeria has been seen to adopt the position of viewing the oil and gas sector as the potential economic and development growth source for the country. This ultimately makes it hard for the country to adopt a stance that prioritizes environmental protection.

A potential comparison can be made with Kenya, whose economy is not highly reliant on a greenhouse gas emitter like oil and gas.¹⁴⁰⁷ Kenya has a political economic position that prioritises the environment for tourism and agriculture exportation. This has enabled Kenya to be more willing to adopt an environmental sustainability approach to climate change. Nigeria on the other hand, has a political economic position that accentuates the oil and gas sector. This has hampered effective climate change governance in the country.

6.5.2 Climate Change Illiteracy and Poverty

Another factor affecting the governance of climate change in Nigeria is the lack of widespread awareness of the problem in the country. This goes in tandem with the high poverty levels within Nigeria, a factor shared by most Global South countries. High poverty levels and a lack of understanding of the climate change problem, has led to many Nigerian citizens maintaining or adopting unsustainable practices. This also applies to general environmental governance.

A good example of this was seen with the Koko toxic incident wherein a Nigerian farmer accepted money for tons of toxic waste to be dumped on his land.¹⁴⁰⁸ This can arguably be said to show a tendency of the Nigerian people, faced with high poverty and limited wealth sources, to have little motivation to care for the environment. This is especially true due to the absence

¹⁴⁰⁷ Olashore (n 1052) 203.

¹⁴⁰⁸ Ijaiya and Joseph (n 1266) 307.

of laws or the widespread knowledge of the negative impact unsustainable actions might have on the environment.

It will however be wrong to conclude that high poverty levels automatically means a lack of a willingness to govern the environment or climate change. Scholars like Anne Armstrong and Marianne Krasny¹⁴⁰⁹ both believe the level of the climate literacy of the citizens, irrespective of the poverty level of a country, plays a significant role in the attitude of the citizens towards climate change governance. This position can be viewed as partially credible especially when looking at the position in Kenya where the high poverty levels have not totally hampered the country from taking an environmental sustainability stance to climate change governance.¹⁴¹⁰

The position may however be criticized on the grounds that knowledge of a problem might not necessarily translate to a willingness to govern the problem. This is seen in Nigeria where the nominal proportion of educated citizens are not all clamouring for climate change action or adopting more climate friendly practices. Most Nigerians, who fall within this category, tend to feel ill-equipped to tackle the climate change problem and tend to reduce the priority level of personally taking action due to poverty, lack of cheap sustainable alternatives and lack of climate change laws.¹⁴¹¹

Ayansina Ayanlade and Margaret Jegede,¹⁴¹² in 2015, undertook a survey examining the level of climate literacy amongst Nigerian university graduates and their willingness to take positive climate action. They discovered that over seventy percent of the graduates surveyed, had a level of understanding of the causes and effects of climate change.¹⁴¹³ They however discovered that

¹⁴⁰⁹ Armstrong, Krasny and Schuldt (n 1097) 21.

¹⁴¹⁰ Olashore (n 1052) 204.

¹⁴¹¹ Idowu, Ayoola et al (n 1211) 151.

 ¹⁴¹² Ayansina Ayanlade and Margaret Olusolape Jegede, 'Climate Change Education and Knowledge Among Nigerian University Graduates' (2016) 8(4) Weather, Climate and Society 467.
 ¹⁴¹³ ibid.

most of the students, especially those with rural ties, were less willing to take a hard-line approach to combating climate change.¹⁴¹⁴

The result of the survey reiterates the point that awareness does not necessarily equate to a willingness to act. The absence of awareness drives, by the government or private persons, around the country and the high levels of poverty,¹⁴¹⁵ will continually make taking an anthropocentric economic-first approach more appealing than taking an environmental sustainability approach.

6.5.3 Corruption and Political Instability

Another factor affecting the governance of climate change in Nigeria, and a number of other Global South countries, is the problem of corruption and political instability. Corruption, in terms of government institutions, can generally be stated to be a situation wherein a public office holder abuses the privilege of his or her office so as to achieve private gains.¹⁴¹⁶ In Nigeria, and in terms of the climate change discussion, lack of strong climate change laws coupled with a strong economic-first mind-set has enabled the weakening of an already weak climate governance system due to corrupt practices.

This is exemplified with situations where funds or resources budgeted for climate action gets misappropriated, by those in charge, for their own personal interests.¹⁴¹⁷ The attitude of the government, of not prioritizing climate change governance, also enables the corruption to go relatively unchecked. Scholars like Dennis Amobi and Tony Onyishi¹⁴¹⁸ both support this

¹⁴¹⁴ ibid 472.

¹⁴¹⁵ Ojonigu Friday Ati, Edga Agubamah and Illiya Bitrus Abaje, 'Global Climate Change Policies and Politics: Nigeria's Response' (2018) 1(1) FUDMA Journal of Politics and International Affairs 113.

¹⁴¹⁶ Ogbeidi (n 658) 5.

¹⁴¹⁷ Olushola Fadairo, Richard Calland et al, 'A Corruption Risk Assessment for Reducing Emissions from Deforestation and Forest Degradation in Nigeria' (2017) 10(1) The International Journal of Climate Change: Impacts and Responses 4.

¹⁴¹⁸ Dennis Amobi and Tony Onyishi, 'Governance and Climate Change in Nigeria: A Public Policy Perspective' (2015) 9(2) Journal of Policy and Development Studies 207.

assessment by stating that climate change governance in Nigeria is an uphill battle where there exists political constraints, limited funding and some levels of corruption in the handling of the governance process.

It is worth noting that must of the budgeted funds on climate change governance come from international organisations. An example of one of these funds, given to Nigeria by the UN, is the United Nations Reducing Emissions from Deforestation and Forest Degradation Plus (UN-REDD+). The UN-REDD+ Programme specifically helps countries like Nigeria attain better forest conservation and community development.¹⁴¹⁹ The Programme has targeted the Cross River State of Nigeria due to the area containing more than Fifty percent (50%) of the country's tropical forests.¹⁴²⁰

The intended impact of the Programme, in helping rural communities develop and contribute to reforestation, has been undermined due to corruption. The local Nigerian authorities in charge of dispensing the funds, have been suspected of siphoning these climate funds or allocating the funds as they wish.¹⁴²¹ This lack of transparency and corruption has affected the effectiveness of the Programme and has failed in serving as a means of motivating the rural people to stop adopting unsustainable practices like deforestation.¹⁴²²

This example shows how corruption can hamper effective climate change governance. The abuse of fiduciary positions for personal gain, or by improper action, can lead to distrust by the people of the climate governance process. The ripple effect of this will be a continuation, especially by poor and vulnerable Nigerian communities, of unsustainable practices which will negatively affect climate change governance in the country.

¹⁴¹⁹ UN-REDD Programme, 'Community Based REDD+ Programmes in Nigeria: A Success Story' (2018) https://www.un-redd.org/post/2018/06/21/community-based-redd-programme-in-nigeria-a-success-story accessed 6 February 2020.

¹⁴²⁰ ibid.

¹⁴²¹ Fadairo, Calland et al (n 1417) 16.

¹⁴²² ibid 17.

6.6 Conclusion

This chapter examined the position of the case study country of this thesis, Nigeria, as it relates to the adoption of an environmental sustainability approach to governing climate change. It was discovered that Nigeria has shown a limited awareness of the climate change problem. This was evidenced by the fact that the country has participated in global climate change discussions and ratified the key international governance initiatives on climate change.

Nigeria, like most Global South countries, has however been hesitant to take an environmental focused approach to governing climate change nationally. This hesitation was first seen in how the country had historically prioritized economic gain, in its approach to environmental governance. This hesitation has been further reinforced by the country's political economic position mirroring a mono-economic stance wherein actions and decisions are all geared towards safeguarding the main economic source, oil and gas.

This position, coupled with maintaining an anthropocentric economic-first mind-set, has led to a slow, and largely ineffective, development of the climate change governance regime within Nigeria. This is exemplified with the country establishing a nationwide environment agency but precluding it from governing its main economic source, oil and gas. Having a strong economic-first mind-set and an economy strongly fuelled by a high greenhouse gas emitter, has resulted in Nigeria taking little to no step to govern climate change nationally.

Nigeria is however not oblivious to the need to govern climate change. The government was seen to have made failed attempts to enact climate change laws. The government has however passed some policies which encourage climate change governance. The country's focus on safeguarding the oil and gas sector, however makes the climate governance process in the country, ineffective. The policies passed are soft law and are dependent on the government's willingness to act. Other factors like: corruption; climate change illiteracy and poverty, were

seen to play a possible role in hindering Nigeria from adopting an environmental sustainability approach to climate change governance.

This thesis set out to state possible legal steps a Global South country, like Nigeria, may adopt to enable it take a more environmental sustainability approach to climate change governance. The next concluding chapter aims to do just that by utilizing the governance lessons from Kenya and the UK to develop the steps adoptable by Nigeria.

CHAPTER 7 – ADOPTING AN ENVIRONMENTAL SUSTAINABILITY APPROACH TO CLIMATE CHANGE GOVERNANCE IN NIGERIA: SUMMARY, RECOMMENDATIONS AND CONCLUSION

7.1 Introduction and Research Questions

This thesis set out to examine the global problem of climate change, to establish the seriousness of the problem and to highlight the need for all States, irrespective of their level of development, to adopt an environmentally focused governance approach in view of positively combating the problem. The main aim of this thesis centres on formulating possible environmental sustainability governance steps Global South countries, especially Nigeria, can adopt to effectively combat climate change nationally.

In line with achieving this aim, this research raised some questions which were set out in chapter one of this thesis. These questions centred on understanding the seriousness of the climate change problem. This involved examining the different ways this global problem has been governed and the perspective States have on governing the problem. This further involved understanding if there was a correlation between a country's economic status and the country's openness to adopting a hard-line environmental sustainability stance to governing climate change.

Nigeria, a Global South country, was viewed as the main case study country of this thesis. The country's reliance on a high greenhouse emitter, oil and gas, including its active involvement in the international governance of climate change, serve as some justification for the choice of Nigeria. One of the questions set out early on in this thesis, involved discovering whether or

not Nigeria has shown a willingness to prioritize an environmental sustainability approach to governing climate change within the country.

This chapter seeks to summarize the various answers and research findings, as they relate to the different research questions raised in this research. These findings will highlight the seriousness of the climate change problem and the justification of the adoption of an environmental sustainability stance to govern the problem. The findings will also summarize the position of Nigeria as it relates to an economic focused approach over an environmental focused governance position on national climate change governance.

The summary of these findings will lead to a discussion of the possible recommended steps a Global South country like Nigeria can adopt. This will involve showcasing some environmental sustainability governance steps in place in the UK and Kenya, which may be transferable and adoptable by Nigeria in line with ensuring proper national governance of climate change.

7.2 Climate Change: Environmental Sustainability Approach to Governance

In chapter two, above, this thesis examined the problem of climate change and the concept of environmental sustainability. By utilizing the interdisciplinary research method, this research was able to examine the general scientific understanding on the problem of climate change. This approach is not novel to this thesis and has been adopted by other legal scholars when discussing the regulatory problem of climate change.¹⁴²³

The scientific examination showed a strong link between anthropocentric economic-first human activities, such as the felling of trees; the mechanized means of transportation;

¹⁴²³ See for example: Lin (n 101) 1140; Lazarus (n 71) 1161; Nwankwoala (n 131) 225; Di Paola and Jamieson (n 1013) 374; and Mayer (n 72) 10.

industrialization; extraction and production of natural resources; on climate change.¹⁴²⁴ The ripple effect of these activities has been high emissions of greenhouse gases which have negatively led to an alarming increase in the warming of the earth's climate.¹⁴²⁵ The warming of the earth has led to climatic changes such as increased unpredictability of weather patterns and more frequent extreme weather events.¹⁴²⁶

Oceanographers Revelle and Suess¹⁴²⁷ in 1957, further raised the danger of climate change by stating that the atmospheric composition of the earth was being affected due to the increasing amount of emissions coming from industries which was becoming too much for the ocean to absorb. These scientific findings showcase the magnitude of the climate change problem. Both scientists¹⁴²⁸ and non-scientists¹⁴²⁹ have acknowledged the growing problem of climate change and have likened it to a 'ticking time bomb'.

There is an increasing fear that if there is a delay in effectively governing this *"super wicked problem*"¹⁴³⁰, the earth may become inhabitable for human existence. This realisation is leading to a global move for human interaction with the environment to transition from an anthropocentric economic focused approach to an approach that views the need to protect the environment in line with ensuring human preservation is achieved.

This new appreciation of the need to adopt an environmental protectionist approach, especially in view of the threat of climate change, is the main crux of the environmental sustainability argument. The environmental sustainability approach to governance is seen as an approach

¹⁴²⁴ Anand (n 82) 3.

¹⁴²⁵ Gettelman and Rood (n 119) 15.

¹⁴²⁶ Williams (n 156) 493.

¹⁴²⁷ Revelle and Suess (n 586) 18.

¹⁴²⁸ Igor Dumic and Edson Severnini, "Ticking Bomb": The Impact of Climate Change on the Incidence of Lyme Disease' (2018) Canadian Journal of Infectious Diseases and Medical Microbiology 1.

¹⁴²⁹ Michael H. Fuchs, 'The Ticking Bomb of Climate Change is America's Biggest Threat' (The Guardian, 29 November, 2018) https://www.theguardian.com/commentisfree/2018/nov/29/ticking-bomb-climate-change-america-threat> accessed 10 February 2020.

¹⁴³⁰ Hilson (n 475) 363.

which prioritises environmental protection over the other pillars of sustainable development, economic and social sustainability. The advocating for this approach to governance, especially as it relates to climate change, is founded on the assumption that human nature naturally seeks to attain individualistic and economic growth.¹⁴³¹

This research aligns with scholars like Andrea Ross¹⁴³², who opine that governments need to out rightly adopt an environmental sustainability approach to governance so as to ensure effective governance of environmental problems like climate change, while still seeking economic growth. Scholars like Holden, Linnerud and Banister¹⁴³³ were also seen supporting this position by stating the prioritisation of an environmental sustainability approach will not preclude States from pursuing economic growth but rather ensure States focus on environmental protection even when they are seeking development.

It was highlighted in chapter four, above, that the global community has slowly acknowledged the need for the adoption of an environmental sustainability approach to the global governance of climate change. This came years after the scientific community had discovered the link between human activities and climate change. Publications from scientist like Revelle and Suess, and the IPCC's first report, published in 1990, propelled the global public policy makers to formally come together to take action on climate change.¹⁴³⁴

Under the direction of the UN, countries were able to negotiate and establish the UNFCCC in 1992. This marked the birth of global climate change governance and was the first indication of the global community becoming increasingly conscious of the need to take some level of governance approach to addressing the climate change problem. Other global governance

¹⁴³¹ Farley and Smith (n 278) 151.

¹⁴³² Ross (n 14) 36-37.

¹⁴³³ Holden, Linnerud and Banister (n 202) 131-132.

¹⁴³⁴ Mayer (n 72) 35.

initiatives have developed after the UNFCCC 1992, with the main ones being the 1997 Kyoto Protocol and the 2015 Paris Agreement.

The Paris Agreement, which is also the latest global governance initiative on climate change, shows the new environmental sustainability approach to governing climate change by requiring all States, irrespective of their economic status, to contribute to ensuring global temperature targets are met.¹⁴³⁵ This is a slight departure from the governance approach found in the Kyoto Protocol wherein only the developed countries were expected to contribute in the governance of climate change.

Despite this new growing global approach to governing climate change, it was highlighted, in chapter five above, that not all States are completely willing to adopt this new approach. It was highlighted that one of the reasons for this has been the economic and political position subscribed to by a State. Majority of the Global South States, in view of attaining growth and development, subscribe to a position which is very economic focused. This means they are hesitant to adopt the new version of anthropocentricity which subscribes to adhering to an environmental sustainability approach to climate change governance in view of ensuring human preservation.

A Global North country like the USA, whose economy is ranked amongst the wealthiest, was seen to be against the adoption of an environmental sustainability approach to global climate governance. The reason for the stance adopted by the US was attributable to the country's ultracapitalist political economic position. This somewhat limits the assumption that a country's economic status is a determinant of the governance position it subscribes to.

¹⁴³⁵ Paris Agreement 2015 Art. 4(1).

It was however discovered that there exists some Global North and Global South countries, specifically the UK and Kenya, who are adopting an environmental sustainability approach to governing climate change, despite the variation in their economic positions. This goes in line with the multiscalar approach to climate change governance advocated for in chapter three of this thesis. The multiscalar approach views States as the primary implementation agents through which global climate change goals are met.

By virtue of this, there is a need for all States to take on an approach accentuating environmental protection for global greenhouse emissions to be effectively reduced. This understanding led to the examination of Nigeria's stance, the case study country of this thesis, on climate change governance in chapter six above.

7.3 Nigeria's Governance of Climate Change: Economic Enrichment over Environmental Sustainability

Nigeria was found to be a country not oblivious to the problem of climate change. This Global South country was seen to be an active participant and signatory to the different major global initiatives developed to govern climate change. It was however discovered that the global participation of Nigeria did not fully translate to national action to combat climate change within the country. On closer scrutiny it was uncovered that the hesitation towards adopting a meaningful national approach to governing climate change could be traced to how Nigeria had historically governed national environmental problems.

Nigeria, like most Global South countries, can arguably be said to have slowly developed an understanding of the need to protect the environment. This understanding, and subsequent environmental governance growth, is however hampered by the strong determination to attain economic enrichment and growth. The reason for this stance could be traced to the fragmented colonial past of these countries which has played a role in the high levels of poverty found in these Global South States.

On the backdrop of this economic deficiency, countries like Nigeria have largely viewed environmental governance and protection more as a luxury.¹⁴³⁶ There was a strong focus on maximizing economic gain from human, environmental and natural resources, as a means to enhance development and ensure the needs of the growing population are met. This position was further strengthened when oil was discovered in commercial quantities in Nigeria in 1956.¹⁴³⁷ The discovery coincided with the time Nigeria gained independence from colonial rule and was seeking possible development pathways.¹⁴³⁸

The economic-first mind-set of the country led to Nigeria focusing on maximizing this new wealth source, the oil and gas sector, to the extent that it has now become the main export and revenue earner of the country.¹⁴³⁹ Having this type of mind-set, was seen to affect the effectiveness of the progress Nigeria has made in environmental governance. This is because general governance decisions, not only limited to environmental governance, were seen to be done with the aim of safeguarding the petroleum sector and ensuring economic gain. This was seen to undermine climate change governance initiatives and lead to general subpar environmental governance.

An example of this was seen with the country refusing to amend ineffective and potentially harmful laws like the Associated Gas Re-injection Act.¹⁴⁴⁰ The government was also seen

¹⁴³⁶ Adegoroye (n 1219) 43.

¹⁴³⁷ Friday (n 9) 33.

¹⁴³⁸ Omorogbe (n 1402) 44.

¹⁴³⁹ Efevwerhan (n 153) 10.

¹⁴⁴⁰ Associated Gas Re-injection Act 1979 CAP A25 Laws of the Federal Republic of Nigeria 2004 (Herein Associated Gas Re-injection Act of Nigeria 1979).

deterring the effectiveness of NESREA, the main environmental agency in Nigeria, by not properly funding it¹⁴⁴¹ and overruling some of the Agency's decisions for pecuniary gain.¹⁴⁴² Another example showcasing how prioritising economic enrichment and having the focus be on protecting the oil and gas sector, has affected the governance decision making in Nigeria, was seen in the NESREA Act.

The Act bars NESREA from being able to take any environmental governance related steps in Nigeria's oil and gas sector.¹⁴⁴³ This showed a clear prioritisation of safeguarding the country's main economic source, oil and gas, with little care given to the potentially negative impact it may have on the environment. This position, taken by Nigeria on environmental governance, especially towards the oil and gas sector, has also affected how the country has chosen to govern the problem of climate change.

The country was seen to have not enacted any laws that can specifically be used to govern climate change. This also applies to the ratified climate change governance initiatives Nigeria is a signatory to. Nigeria practices a dualist system which requires international treaties to first be domesticated by the country's law-making body before they become municipal law.¹⁴⁴⁴ In Nigeria, international treaties include conventions, general acts, agreements, acts, modivendi and protocols.¹⁴⁴⁵

This means that the 1992 UNFCCC, the 1997 Kyoto Protocol and the 2015 Paris Agreement, all need to be domesticated before they can be viewed as domestic law in Nigeria. In the absence of national laws and domesticated international laws on climate change, there has been little governance avenues of the problem in Nigeria. The Nigerian government was seen

¹⁴⁴¹ Ijaiya and Joseph (n 1266) 315.

¹⁴⁴² ibid.

¹⁴⁴³ NESREA Act 2007, s 7(g).

¹⁴⁴⁴ The Constitution of the Federal Republic of Nigeria 1999 (as amended), s 12.

¹⁴⁴⁵ Treaties (Making Procedure, Etc.) Act 1993 s 3(3).

creating different executive orders on climate change which are not legally binding and whose effectiveness are subject to the will of the government.

There have also been some subtle and unsuccessful attempts to create climate change legislation in Nigeria with the latest attempt being the Climate Change Bill introduced in the National Assembly in 2019. No progress has been made on this Bill with the National Assembly website stating the Bill is unavailable to the public.¹⁴⁴⁶ Based on Nigeria's track record of abandoning the creation of climate change laws, there is a slight fear that this new Bill may also be abandoned.

The analysis on Nigeria shows a country somewhat aware of the need to govern climate change. The country is however hesitant to adopt an environmental sustainability approach to climate change governance. Reasons for this was seen to be due to the resistance by countries like Nigeria, to abandon an economic-first approach for an approach that accentuates environmental protection due to a fear that this might affect their search for development.

In Nigeria, specifically, this also aligns with the fact that the country's main revenue earning sector, oil and gas, has also been highlighted to be amongst the top greenhouse emitting sectors.¹⁴⁴⁷ This means Nigeria, will need to make sustainable changes to how it generates revenue or develop a cleaner way of operating the oil and gas sector, for it to make considerable strides to govern climate change within the country. This is however, not the position at present in the country.

Apart from the revenue earner serving as a deterrence of the country adopting an environmental sustainability approach to governing climate change, other factors like: corruption; poverty and

¹⁴⁴⁶ Federal Republic of Nigeria National Assembly, 'Bill Tracker'

https://www.nassnig.org/documents/bill/10740> accessed 17 July 2020.

¹⁴⁴⁷ Kyoto Protocol 1997 Annex A.

illiteracy, were also seen to hamper the country from adopting such a national stance on climate change. This thesis however takes the position that all States, including Nigeria, need to take an active role in governing the climate change problem for there to be an effective reduction of the level of global greenhouse gases.

In line with advocating the adoption of an environmental sustainability approach to climate change governance for Nigeria, this thesis, in chapter five above, examined the UK and Kenya to find possible governance lessons Nigeria may adopt to govern this global problem nationally.

7.4 Environmental Sustainability Approach to Governing Climate Change: Lessons from the UK and Kenya

In chapter one, above, this thesis highlighted the comparative methodology as one of the methods to be adopted in carrying out this research. An aspect of this research method, legal transplant is to be adopted here.¹⁴⁴⁸ Legal transplants can simply be explained as the process of borrowing, exchanging and sometimes copying legal ideas and initiatives either from one nation to the other or between national and international law.

Natasha Affloder¹⁴⁴⁹ believes this process inspires States to either adopt or possibly develop their own environmental governance regimes after examining the success of the regime in another State(s). She calls this *"contagious environmental law-making"*¹⁴⁵⁰. Julio Carvalho¹⁴⁵¹ however cautions researchers and law makers of the need to consider the culture of the alien

¹⁴⁴⁸ Watson (n 42) 22.

¹⁴⁴⁹ Affolder (n 47) 187.

¹⁴⁵⁰ ibid.

¹⁴⁵¹ Julio Carvalho, 'Law, Language and Knowledge: Legal Transplants from a Cultural Perspective' (2019) 20 German Law Journal 21.
country in terms of language; social structure; and legal systems, before looking to adopt the laws into another country. This is what Toby Goldbach¹⁴⁵² refers to as *"context"* and *"fit"*, stating both play an important role in determining the success or failure of a transplanted law.

Based on this position, and noting the uniqueness of Nigeria, this thesis looked to the UK and Kenya as possible regimes Nigeria can learn from. Both countries were examined in chapter five of the thesis, above, and were seen to be adopting an environmental sustainability stance to climate change governance.¹⁴⁵³ Starting with the UK, it was established that Nigeria could potentially learn from this Global North country due to some social and legal traits shared by both countries.

The similarities date back to the fact that Nigeria was once under the colonial control of the UK.¹⁴⁵⁴ Upon gaining independence, post-colonial Nigeria chose to maintain some cultural systems of the UK like the UK's Common law system and the English language to serve as the bedrock of its newly independent country.¹⁴⁵⁵ Especially in terms of developing the country's legal system, Nigeria has continued to voluntarily look to the UK's legal system for inspiration and as a benchmark on legal issues.¹⁴⁵⁶

Kenya was also established as a potential climate change governance donor country for Nigeria. Kenya was seen to share a very similar colonial history with Nigeria wherein both countries were colonised by the UK.¹⁴⁵⁷ Kenya, similarly to Nigeria, also adopted the Common law system and the English language from the UK.¹⁴⁵⁸ Both Kenya and Nigeria, as Global South countries, are seeking economic development due to a high proportion of their citizens

¹⁴⁵² Toby S. Goldbach, 'Why Legal Transplants' (2019) 15 Annual Review of Law and Social Science 583.

¹⁴⁵³ See section 5.3 above.

¹⁴⁵⁴ Osunyinmika (n 1137) 206.

¹⁴⁵⁵ Yusuf (n 1138) 3.

¹⁴⁵⁶ Hakeem Yusuf, 'The Judiciary and Political Change in Africa: Developing transitional jurisprudence in Nigeria' (2009) 7(4) International Journal of Constitutional Law 664.

¹⁴⁵⁷ Karari (n 1177) 1.

¹⁴⁵⁸ Wabwile (n 52) 51.

considered to be extremely poor.¹⁴⁵⁹ The UK and Kenya are both countries Nigeria has some level of similarity with which allows for the opportunity for Nigeria to look to them for inspiration on how to govern climate change nationally.

This thesis does not, however, take the position that these donor countries are exactly like Nigeria. Rather, this thesis understands the uniqueness of countries and takes the position that the contagious climate change governance approach to be prescribed for Nigeria is not to attain an exact replica of the legal solutions found in either country,¹⁴⁶⁰ but rather as a springboard through which Nigeria can develop its own environmental sustainability legal steps aimed at governing climate change.

In chapter five of this thesis, above, the key environmental sustainability step, common to both the UK and Kenya, was the enacting of a separate law to govern climate change. The existence of a body of law, to govern a specific issue, gives a sense that the country wants to bring order to the issue and be bound by the stated law.¹⁴⁶¹ This position was seen playing out in both the UK¹⁴⁶² and Kenya¹⁴⁶³ wherein the existence of a body of law on climate change has enabled the citizens to force public and private officials, through the Courts, to adhere to climate friendly actions.

Apart from enacting a law to govern climate change, both countries were also seen to have taken other hard-line steps in line with promoting effective climate change governance. For example, the UK created a separate and independent climate change agency, the CCC¹⁴⁶⁴,

¹⁴⁶⁴ Climate Change Act 2008 (UK), s 32.

¹⁴⁵⁹ Mohajan (1180) 81.

¹⁴⁶⁰ Xanthaki (n 49) 659.

¹⁴⁶¹ Daham S. Hussein, Kittisak Jermsittiparsert and Paiman Ahmad, 'The Importance of the Rule of Law in Governance' (2019) 6(1) Journal of University of Raparin 82.

¹⁴⁶² See Plan B Earth and Others v. Secretary of State for Business, Energy and Industrial Strategy [2018] EWHC 1892 (Admin) (UK).

 ¹⁴⁶³ See Save Lamu et al v. National Environmental Management Authority and Amu Power Co. Ltd (2016)
TRIBUNAL APPEAL NO. NET 196 of 2016 (KEN).
¹⁴⁶⁴ CU and Change Ant 2009 (JUC) = 22

saddled with the responsibility of reviewing the UK's climate change targets and advising the government on whether or not the targets need to be amended.

The UK was also seen adopting a range of market based schemes aimed at encouraging and rewarding both individuals and businesses who subscribe to obtaining cleaner energy and are seen reducing their level of greenhouse emissions. Examples of these market based schemes are: Climate Change Levy, CRC Energy Efficiency Scheme, Emissions Trading and the Climate Change Agreement.

Kenya was also seen to have adopted an environmental sustainability approach to climate change governance by: increasing public education of the climate change problem; increasing public participation in climate governance; and investing in clean energy sources. The Kenyan government recognizes the need for the public to have a good understanding of the causes and effects of climate change so as to increase public willingness to adhere to the governance of the problem. This has led the government to add teachings on climate change into all levels of the Kenyan school curriculum.¹⁴⁶⁵

Public participation relates closely with education, with the Kenyan government seen to be taking the stance of involving the public in all climate change related decision making and also ensuring the public have quick access to all the government's climate governance initiatives.¹⁴⁶⁶ This usually takes the form of the different governance regions in Kenya, called Counties, reaching out and asking grass root stakeholders of their views on planned climate change related policies and programs.¹⁴⁶⁷ The Kenyan government was also found to have

¹⁴⁶⁵ Climate Change Act 2016 (KEN), s 21.

¹⁴⁶⁶ Climate Change Act 2016 (KEN), s 24.

¹⁴⁶⁷ Lenice Ojwang, Sergio Rosendo et al, 'Assessment of Coastal Governance for Climate Change Adaptation in Kenya' (2017) 5(11) Earth's Future 1126.

established a Climate Change Fund through which clean energy and other climate change related research is being funded.¹⁴⁶⁸

These different steps, taken by the UK and Kenya, in governing climate change nationally, show an understanding of the need to adopt a hard-line approach to climate change governance. They also serve to show different ways States, irrespective of their level of development, can actively partake in combating climate change through the adoption of an environmental sustainability approach to governance. In line with achieving the aim of this thesis, these steps will serve as the building blocks upon which possible national environmental sustainability governance steps will be recommended to a country like Nigeria.

7.5 Recommending an Environmental Sustainability Approach to Climate Change Governance for Nigeria

The previous writings, discussions and discoveries carried out in this thesis, have been a slow but mindful build-up towards attaining the aim of this thesis. This thesis set out to develop practical and potentially effective legal governance steps a Global South country like Nigeria can adopt to govern climate change within the country. In view of the seriousness of this global problem, this thesis subscribes to the adoption of an environmental sustainability stance to governance wherein actions and decisions are geared towards prioritizing environmental protection and sustenance.

The UK and Kenya were both examined as examples of a Global North and a Global South country which are making strides to combat climate change, nationally, through the adoption

¹⁴⁶⁸ Climate Change Act 2016 (KEN), s 25(1).

of an environmental sustainability stance to governance. The steps taken by these countries are to serve as the inspiration for the following recommendations for Nigeria. It is worth pointing out that these governance recommendations are in no way exhaustive but are viewed as essential governance policies Nigeria can look to adopt so as to meaningfully combat climate change nationally.

7.5.1 Enact a Climate Change Law

The starting point of an environmental sustainable regime to climate change governance, as was seen from both the UK and Kenya, is the presence of a codified set of rules focused solely on the governance of climate change. Having a body of rules, would give Nigeria the ability to spell out the direction, targets and approaches it wishes to take in governing climate change. This would also ensure both the private and public sectors become mindful of climate change governance in the action and decisions they take.

The need for accountability through an enacted body of law, especially when it comes to environmental related issues, is highly recommended in Nigeria. The previous chapters show a tendency for the Nigerian government, and even the citizenry, to prioritize an anthropocentric economic-first mind-set in the governance of the environment. This has led to ineffective environmental laws with environmental protection being a largely reactive process.¹⁴⁶⁹ This stance is further heightened in the oil and gas sector of Nigeria, which is also the main export revenue earner for the country.

The anthropocentric centeredness is exemplified in the mandate given to the top environmental agency in Nigeria, NESREA, wherein the agency was given the power to enforce and ensure

¹⁴⁶⁹ Emeka Polycarp Amechi, 'Strengthening Environmental Public Interest Litigation through Citizen Suits in Nigeria: Learning from the South African Environmental Jurisprudential Development' (2015) 23(3) African Journal of International and Comparative Law 386.

compliance to environmental governance in all sectors of the country apart from the oil and gas sector.¹⁴⁷⁰ Meaning that oil pollution and gas flaring can occur, and Nigeria's top environmental agency does not have the legal backing to do anything meaningful about it. This also precludes the agency from actively ensuring greenhouse gas emissions from the oil and gas sector are regulated.

It is therefore paramount for Nigeria to have a clear and non-ambiguous body of laws to govern climate change so as to potentially help curtail some extreme anthropocentric behaviours in the country that have negatively impacted climate change. Olashore¹⁴⁷¹ believes enacting a climate change law in Nigeria will be a positive move in helping the country adopt an environmental sustainability approach to governing climate change.

As was seen in both the UK and Kenya, a codified body of laws on climate change compels everyone within the country, including government agencies, to be mindful of climate change governance in the decisions taken. It is important that the law empowers the citizens to compel fellow citizens, businesses and government agencies to act in accordance with reducing Nigeria's greenhouse gas emissions, as is the case in Kenya.¹⁴⁷²

The inclusion of such a provision will give power to both the Courts and the public to serve as governance agents, ensuring climate change governance is complied with. It can even be argued that the case of *Gbemre v. Shell Petroleum Development Company Nigeria Ltd and others*¹⁴⁷³, which involved gas flaring, might have been adjudicated upon in a more straightforward manner rather than being based on human right abuse. This is because gas flaring is one of the clear high emitting sources of greenhouse gas in the world.

¹⁴⁷⁰ NESREA Act 2007, s 7(g).

¹⁴⁷¹ Olashore (n 1052) 199.

¹⁴⁷² Climate Change Act 2016 (KEN), s 23.

¹⁴⁷³ FHC/B/CS/53/05; AHRLR 151 (Nigeria 2005).

This argument is supported by Theodore Okonkwo¹⁴⁷⁴, who in his general examination of climate change litigation, believes that giving the Courts the right and ability to enforce climate change rules is one of the best ways of ensuring climate change mitigation. He believes by empowering the public with the legal backing to prosecute government agencies and organizations, there would be a steady behavioural change from historical actions that have been detrimental to climate change governance.¹⁴⁷⁵

It is worth pointing out here that there have been slight attempts in the past to enact a climate change law in Nigeria to no avail. The most recent attempt, as seen on the website of the law-making body of Nigeria, the National Assembly, is a proposed Climate Change Bill which has been in the elementary stage of the legislative making process since October 2019.¹⁴⁷⁶ The proposed Bill is however unavailable to the public.¹⁴⁷⁷

This act of not making a proposed Bill public before it becomes law is not only limited to climate change. Upon a quick search on the National Assembly website, it was discovered that all proposed Bills have not been made public.¹⁴⁷⁸ This is not the case in most countries like the UK and Kenya where the proposed laws are clearly visible to the public.¹⁴⁷⁹ Nigeria can also learn from this so as to encourage public participation.

¹⁴⁷⁴ Theodore Okonkwo, 'Protecting the Environment and People from Climate Change through Climate Change Litigation' (2017) 10(5) Journal of Politics and Law 66.

¹⁴⁷⁵ ibid 75.

¹⁴⁷⁶ Federal Republic of Nigeria National Assembly, 'Bill Tracker'

https://www.nassnig.org/documents/bill/10740 accessed 19 July 2020.

¹⁴⁷⁷ ibid.

¹⁴⁷⁸ For example the National Park Service Bill, 2019 is unavailable to the public. A list of other such Bills can be found the Federal Republic of Nigeria website https://www.nassnig.org/documents/bills accessed 24 April 2020.

¹⁴⁷⁹ The UK has a detailed website showcasing the document and the stage of the legislative process the proposed law is at. See https://services.parliament.uk/bills/ accessed 24 April 2020. The same goes for Kenya see http://www.parliament.go.ke/the-senate/house-business/bills-tracker accessed 24 April 2020.

7.5.2 Encourage Public Participation and Education

Apart from enacting a separate climate change law, encouraging public participation and education can help promote more effective climate change governance in Nigeria. This approach was adopted and codified in Kenya. The Kenyan government, understanding the high level of poverty and illiteracy in the country, took the position of educating the citizens of the causes and effects of climate change.

This, they believe, will encourage the people to be less resistant to climate friendly rules, while also possibly increasing public participation in the everyday governance of climate change.¹⁴⁸⁰ Nigeria can adopt this position in view of encouraging the citizens to become more environmental and climate change conscious.

Amanchukwu, Amadi-Ali and Ololube,¹⁴⁸¹ in their joint paper, believe one of the ways this can be achieved is by adding lessons on climate change into the school curriculum in Nigeria. They believe that training teachers in order to educate students on climate change, could be an effective way of ensuring improved public understanding of this global problem.¹⁴⁸² Public outreach programs can also be adopted to sensitize adults on the causes and effects of climate change.

Increased literacy of the problem of climate change can also increase the willingness of the public to participate in climate change governance. By encouraging public participation and transparency in the governance of climate change, the Nigerian public may be more trusting of the governance process and be more invested in ensuring any stated climate change targets are met.

¹⁴⁸⁰ Olashore (n 1052) 199.

 ¹⁴⁸¹ Rose N. Amanchukwu, Thank G. Amadi-Ali and Nwanchukwu P. Ololube, 'Climate Change Education in Nigeria: The Role of Curriculum Review' (2015) 5(3) Education 71.
¹⁴⁸² ibid 76.

7.5.3 Establish an Independent Climate Change Agency

Another lesson Nigeria may adopt in the development of its climate regime is the creation of a separate and independent climate change agency. This lesson was adopted from the approach taken by the UK government of creating the CCC despite the country already having a government department, on the environment, and other environmental agencies. By creating a separate agency solely focused on climate change, the UK government, is looking to limit the amount of government interference in climate change governance.

This is an approach Nigeria should adopt. Nigeria has had a history of interfering with government agencies set up to govern the environment or improperly financing them to the extent that they become redundant. In order to avoid a repeat of this, Nigeria should create a separate climate change agency whose mandate is backed by law. The agency should be made up of technocrats who have a wide range of expertise in climate change.

The agency could serve as a research body and advice centre for the government ensuring the best possible adaptation and mitigation steps are implemented by the government. It is also important for the budget of the agency to be as standard and straightforward as possible so as to remove any possibility of interference or limited funding.

The government may also decide to use the present environmental agency in the country and create a climate change wing within it. For this to be effective, the independence, scope and power of NESREA must be corrected and upgraded.

7.5.4 Utilize Market Forces to Encourage Businesses

The Nigerian government can also adopt the use of market forces as a way of incentivizing and encouraging businesses to adopt emission reduction steps. The government can introduce taxes and levies on businesses utilizing high emitting energy sources while also giving some version of tax holidays to those using clean energy sources. Idowu and Ayoola¹⁴⁸³ support the use of incentives in Nigeria, especially for small and medium businesses. They believe the government can provide credit assistance to businesses to enable them transition to clean energy sources.¹⁴⁸⁴

For big businesses, the use of market forces can be applied as a form of punishment and deterrence for high emitting companies. The UK's Climate Change Levy and Climate Change Agreement may be revised and adopted in Nigeria especially within the oil and gas sector. The Nigerian government can propose an agreement with the oil and gas companies wherein levies and other taxes may be reduced if the company develops or finds ways to reduce the level of greenhouse gas emissions they produce. Companies and businesses should be rewarded for finding innovative and sustainable ways to reduce their emissions.

7.5.5 Invest in Clean Energy

Apart from getting businesses to utilize clean energy sources, the government needs to start looking to invest in clean and renewable energy sources. The country is blessed with different potential energy sources ranging from solar, hydro and wind. Increased investment in such sources will lead to a reduction in the amount of greenhouse gases emitted in the country.¹⁴⁸⁵ It may also increase the potential of foreign governments and agencies supporting Nigeria, as is the case of Kenya, both technically and monetarily to develop its clean energy sector.

Previous climate change investments in Nigeria, as exemplified with the UN-REDD+ Programme above¹⁴⁸⁶, have been marred by corruption and a lack of political will. Nigeria can avoid this through the creation of an independent climate change agency, as highlighted above.

¹⁴⁸³ Idowu, Ayoola et al (n 1211) 151.

¹⁴⁸⁴ ibid.

¹⁴⁸⁵ Ebele and Emodi (n 1214) 10.

¹⁴⁸⁶ See section 6.5.3 above.

Scholars like Ati, Agubamah and Abaje¹⁴⁸⁷ believe Nigeria needs an independent body with little to no government interference to ensure an efficient governance of climate change. They believe this agency would also be in charge of receiving and implementing the clean energy investments.¹⁴⁸⁸ Such an environmental sustainability approach will play a huge role in ensuring Nigeria's emission levels reduce due to the gradual exchange of unsustainable energy sources for cleaner ones.

7.6 Conclusion

Climate change is a very serious problem which requires governance by all States in order for there to be an effective reduction of the global levels of greenhouse gases so as to ensure human preservation is attainable. Global South countries, like Nigeria, have shown a limited understanding of this urgency and are less willing to deprioritize their ultra-economic focused approach for a more environmental friendly one.

This thesis believes all States need to adopt an environmental sustainability approach to climate change governance for climate change to be effectively governed. The examination carried out in in this thesis shows that the economic status of a country is not a barrier for the country to take such a stance to climate change governance as was seen with the UK and Kenya. This means that, Nigeria, despite the poverty levels and high dependence on a greenhouse gas emitter, can adopt some level of environmental sustainability approach to climate change governance.

¹⁴⁸⁷ Ati, Agubamah and Abaje (n 1415) 118. ¹⁴⁸⁸ ibid 119.

The political economic structure of Nigeria, which mirrors a mono-economic system, is such that decisions and actions are geared towards safeguarding the main economic source of the country, the oil and gas sector. It is acknowledged in this thesis, that the oil focused lens through which Nigeria is governed, makes it harder for the country to adhere to an environmental sustainability approach to climate change governance, as compared to a country like Kenya. In spite of this, this thesis believes Nigeria can take partake in the governance of climate change and recommends some possible environmental governance steps to aid the country attain more effective governance of the problem.

Countries like Nigeria need to be open and willing to adopt governance measures, like those recommended in this thesis. Climate change is not stopping or reducing. Therefore States need to urgently take action to curtail the dire picture being painted. If all States, including Nigeria, adhere to an environmental sustainability approach to governance, there will be an increased probability of the slowing of the climate change process.

BIBLIOGRAPHY

BOOKS

Anand R, *International Environmental Justice: A North-South Dimension* (1st edn, Routledge 2004).

Armstrong A. K, Krasny M. E. and Schuldt J. P, *Communicating Climate Change: A Guide for Educators* (Cornell University Press 2018).

Atanda J. A, Political Systems of Nigerian Peoples Up to 1900 (John Archers 2006).

Ayoade J. O, *Climate Change: A Synopsis of its Nature, Causes, Effects and Management* (2nd edn, AAP 2016).

Baldwin P, The Politics of Social Solidarity: Class Bases of the European Welfare State 1875 – 1975 (CUP 1990).

Bell S, McGillivary D, Pedersen O. W, Lees E. and Stokes E, *Environmental Law* (9th edn, OUP 2017).

Bender F. L, *The Culture of Extinction: Toward a Philosophy of Deep Ecology* (Humanity Books 2003).

Benedick R. E, *Ozone Diplomacy: New Directions in Safeguarding the Planet* (2nd edn, HUP 1998).

Bodansky D, *The Art and Craft of International Environmental Law* (Harvard University Press 2010).

Bramwell A, Ecology in the 20th Century: A History (Yale University Press 1989).

Curry P, Ecological Ethics: An Introduction (2nd edn, Polity 2018).

Dobbins J, Solomon R. H. et al, *Choices for America in a Turbulent World: Strategic Rethink* (RAND Corporation 2015).

Dobson A, Green Political Thought (4th edn, Routledge 2007).

Eckersley R, *Environmentalism and Political Theory: Toward an Ecocentric Approach* (State University of New York Press 1992).

Evernden N, *The Natural Alien: Humankind and Environment* (1st edn, University of Toronto Press 1985).

Fagbohun O, Mournful Remedies, Endless Conflicts and Inconsistencies in Nigeria's Quest for Environmental Governance: Rethinking the Legal Possibilities for Sustainability (NIALS Press 2012).

Farley H. M. and Smith Z. A, *Sustainability: If It's Everything, Is It Nothing?* (Routledge 2014).

Franck T. M, Fairness in International Law and Institutions (Clarendon Press 1995).

Gettelman A. and Rood R. B, *Demystifying Climate Models: A Users Guide to Earth System Models* (Springer 2016).

Gillespie A, International Environmental Law, Policy and Ethics (OUP 1997).

Gottschalk L. R, Understanding History: A Primer of Historical Method (2nd edn, Random House Inc. 1969).

Gupta J, Our Simmering Planet (Palgrave Macmillan 2000).

Heywood A, Politics (3rd edn, Palgrave Macmillan 2007).

Koivurova T, Introduction to International Environmental Law (Routledge 2014).

Mayer B, The International Law on Climate change (CUP 2018).

Meadows D. et al, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (Universal Books 1972).

Michaels P. J. and Knappenberger P. C, *Lukewarming: The New Climate Science That Changes Everything* (CATO Institute 2016).

Mwalimu C, The Nigerian Legal System: Volume I (Peter Lang Publishing 2005).

Obilade A. O, The Nigerian Legal System (Sweet & Maxwell 1979).

Phoenix A, Boddy J. et al, *Environment in the Lives of Children and Families: Perspectives from India and the UK* (BUP 2017).

Ross A, Sustainable Development law in the UK: from rhetoric to reality? (Routledge 2012).

Ruddiman W. F, Earth's Climate: Past and Future (2nd edn, W. H. Freeman 2008).

Saha K, The Earth's Atmosphere: It's Physics and Dynamics (Springer 2008).

Sands P, Peel J. et al, Principles of International Environmental Law (4th edn, CUP 2018).

Schapiro J. S. and Shotwell J, *Modern and Contemporary European History (1815-1936)* (Houghton Mifflin 1937).

Watson A, Legal Transplants: An approach to Comparative Law (2nd edn, University of Georgia Press 1993).

Wolf S. and Stanley N, Wolf and Stanley on Environmental Law (6th edn, Routledge 2014).

Yamin F. and Depledge J, *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures* (CUP 2004).

BOOK CHAPTERS

Abeysinghe A. C. and Arias G, 'CBDR as a Principle of Inspiring Actions rather than Justifying Inaction in the Global Climate Change Regime' in Ruppel O. C, Roschmann C. et al (eds), *Climate Change International and Global Governance: Volume II Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft 2013).

Adams M. and Griffiths J, 'Against "Comparative Method": Explaining Similarities and Differences', in Adams M. and Boutiff J, *Practice and Theory in Comparative Law* (CUP 2012).

Ahove A. M, 'Environmental Education in Nigeria' in Kola-Olusanya A, Omotayo A. et al (eds), *Environment and Sustainability: Issues, Policies & Contentions* (1st edn, University Press 2011).

Atapattu S. and Gonzalez C. G, 'The North-South Divide in International Environmental Law: Framing the Issues' in Alam S, Atapattu S. et al (eds), *International Environmental Law and the Global South* (CUP 2015).

Attfield R, 'Environmental Sensitivity and Critiques of Stewardship' in Berry R. J. (eds), *Environmental Stewardship: Critical Perspectives – Past and Present* (1st edn, T&T Clark 2006).

Axelrod R. S, VanDeveer S. D. and Vig N. J, 'Introduction: Governing the International Environment' in Axelrod R. S, VanDeveer S. D. and Downie D. J. (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011).

Bauckham R, 'Modern Domination of Nature: Historical Origins and Biblical Critique' in Berry R. J. (eds), *Environmental Stewardship: Critical Perspectives – Past and Present* (1st edn, T&T Clark 2006).

Berry R. J, 'Stewardship: A Default Position?' in Berry R. J. (eds), *Environmental Stewardship: Critical Perspectives – Past and Present* (1st edn, T&T Clark 2006).

Betsill M. M, 'International Climate Change Policy: Toward the Multilevel Governance of Global Warming' in Axelrod R. S, VanDeveer S. D. and Downie D. L. (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011).

Bhattacharyya S, 'The Historical Origins of Poverty in Developing Countries' in Brady D. and Burton L. M. (eds), *The Oxford Handbook of the Social Science of Poverty* (OUP 2016).

Brunnée J, 'Enforcement Mechanisms in International Law and International Environmental Law' in Beyerlin U, Soll P. and Wolfrum R. (eds), *Ensuring Compliance with Multilateral Environmental Agreements: A Dialogue between Practitioners and Academics* (Brill 2006).

Chynoweth P, 'Legal Research' in Knight A. and Ruddock L. (eds), Advanced Research Methods in the Built Environment (Wiley-Blackwell 2008).

Cornell S. E, Downy C. J. et al, 'Earth System Science and Society: A focus on the Anthroposphere' in Cornell S. E, Prentice C. et al (eds), *Understanding the Earth System: Global Change Science for Application* (CUP 2012).

Douglas B, 'Transforming Human Society from Anthropocentrism to Ecocentrism: Can We Make It Happen in Time?' in Butler C. D, Dixon J. and Capon A. G. (eds), *Health of People, Places and Planet: Reflections Based On Tony McMichael's Four Decades Of Contribution To Epidemiological Understanding* (ANU Press 2015).

Drysdale P. and Hardwick S, 'China and the Global Trading System: then and now' in Garnaurt R, Song L. and Fang C. (eds), *China's 40 Years of Reform and Development: 1978-2018* (ANU Press 2018).

Dunlap R. E. and Jorgenson A. K, 'Environmental Problems' in Ritzer G. (eds), *The Wiley-Blackwell Encyclopaedia of Globalization* (1st edn, Blackwell Publishing 2012) <<u>https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470670590.wbeog174</u>> accessed 15 August 2018.

Fankhauser S, Kennedy D. and Skea J, 'The UK's Carbon Targets for 2020 and the role of the Committee on Climate Change' in Giddens A, Latham S. et al (eds), *Building a Low-Carbon Future: The Politics of Climate Change* (Policy Network 2009).

French H, 'Reshaping Global Governance' in Starke L. (eds), *State of the World 2002: A Worldwatch Institute Report on Progress Toward a Sustainable Society* (W. W. Norton & Company 2002).

Guerrero D. G, 'The Limits of Capitalist Solutions to the Climate Crisis' in Satgar V. (eds), *The Climate Crisis: South African and Global Democratic Eco-Socialist Alternatives* (Wits University Press 2018).

Holley C, 'Environmental Regulation and Governance' in Drahos P. (eds), *Regulatory Theory: Foundations and Applications* (ANU Press 2017).

Kibugi R, 'Mainstreaming Sustainable Development into National Climate Change Responses: Assessing the Legal Options to Reinforce Equity' in Ruppel O, Roschmann C. and Ruppel-Schlichting K. (eds), *Climate Change: International Law and Global Governance: Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft mbH 2013).

Kuhn A. and Heckelei T, 'Anthroposphere' in Speth P, Christoph M. and Diekkrüger B. (eds), *Impacts of Global Change on the Hydrological Cycle in West and Northwest Africa* (Springer 2010).

Lafferty W. M, 'Introduction: form and function in governance for sustainable development' in Lafferty W. M. (eds), *Governance for Sustainable Development: The Challenged of Adapting Form to Function* (Edward Elgar 2004).

Mageza-Barthel R, 'Beyond the State in Sino-African Relations? Situating Civil Society Interactions' in Graf A. and Hashim A. (eds), *African-Asian Encounters: Creating Cooperations and Dependencies* (Amsterdam University Press 2017).

McCormick J, 'The Role of Environmental NGOs in International Regimes' in Axelrod R. S, VanDeveer S. D. and Downie D. L. (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011).

Mechler R, Calliari E. et al, 'Science for Loss and Damage: Findings and Propositions' in Mechler R, Bouwer L. et al, *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Springer Open 2018).

Nishimura T, 'The Paris Agreement: Continuity and Change within the Climate Regime' in Craik N, Jefferies C. S. G. et al (eds), *Part I – Innovation in Legal Responses to Normative Change* (CUP 2018).

Odote C, 'Public Interest Litigation and Climate Change – An Example from Kenya' in Ruppel O. C, Roschmann C. and Ruppel-Schlichting K. (eds), *Climate Change: International Law and Global Governance* (Nomos Verlagsgesellschaft mbH 2013).

Sandler R, 'Introduction: Environmental Virtue Ethics' in Sandler R. and Cafaro P. (eds), *Environmental Virtue Ethics* (Rowman and Littlefield 2005).

Shahid Z. and Piracha A, 'Awareness of Climate Change Impacts and Adaptation at Local Level in Punjab, Pakistan' in Maheshwari B, Singh V. P. and Thoradeniya B. (eds), *Balanced Urban Development: options and strategies for liveable cities* (Springer 2016).

Smith M. S, 'Responding to Global Environmental Change' in Bammer G. (eds), *Change!* : *Combining Analytical Approaches with Street Wisdom* (ANU Press 2015).

Soroos M. S, 'Global Institutions and the Environment: An Evolutionary Perspective' in Axelrod R. S, VanDeveer S. D. and Downie D. L. (eds), *The Global Environment: Institutions, Law and Policy* (3rd edn, CQ Press 2011).

Tella A, 'Understanding Environmental Issues for Better Environmental Protection' in Kola-Olusanya A, Omotayo A. et al (eds), *Environment and Sustainability: Issues, Policies & Contentions* (1st edn, University Press 2011).

Ukiwo U, 'Nigeria's Oil Governance Regime: Challenges and Policies' in Langer A, Ukiwo U. and Mbabazi P. (eds), *Oil Wealth and Development in Uganda and Beyond: Prospects, Opportunities and Challenges* (Leuven University Press 2020).

Van Asselt H. and Zelli F, 'International Governance: Polycentric Governing by and beyond the UNFCCC' in Jordan A, Huitema D. et al (eds), *Governing Climate Change: Polycentricity in Action?* (CUP 2018).

Von Bassewitz N, 'International Climate Change Policy: Where do we Stand?' in Ruppel O. C, Roschmann C. et al (eds), *Climate Change International and Global Governance: Volume II Policy, Diplomacy and Governance in a Changing Environment* (Nomos Verlagsgesellschaft 2013).

JOURNAL ARTICLES

Abegunde A. A, 'Local Communities' Belief in Climate Change in a Rural Region of Sub-Saharan Africa' (2017) 19 Environment, Development and Sustainability 1489.

Abegunde B, 'Reflecting on the Syndrome of Non-domestication of International Treaties in Nigeria: charting the way forward' (2018) 26 Sri Lanka Journal of International Law 149.

Acemoglu D, Johnson S. and Robinson J. A, 'Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution' (2002) 117(4) The Quarterly Journal of Economics 1231.

Addaney M, Boshoff E. and Olutola B, 'The Climate Change and Human Rights Nexus in Africa' (2017) 9(3) Amsterdam Law Forum 5.

Affolder N, 'Contagious Environmental Lawmaking' (2019) 31(2) Journal of Environmental Law 187.

Ahenkan A. and Osei-Kojo A, 'Achieving Sustainable Development in Africa: progress, challenges and prospects' (2014) 3(1) International Journal of Development and Sustainability 162.

Ajaebili C. N, 'A Century after Amalgamation: Reflections on History and Nation Building in Nigeria, 1914-2014' (2015) 24 Journal of the Historical Society of Nigeria 95.

Ajayi O. O, 'The Nigerian National Climate Change Commission Bill: a review' (2017) 3(1) Ife Journal of International and Comparative Law 96.

Akamabe U. B. and Kpae G, 'A Critique on Nigeria National Policy on Environment: Reasons for Policy Review' (2017) 3(3) International Journal of Geography and Environmental Management 22.

Akanle O, 'The Development Exceptionality of Nigeria: The Context of Political and Social Currents' (2013) 59(3) Africa Today 31.

Ako R. T, 'Nigeria's Land Use Act: An Anti-Thesis to Environmental Justice' (2009) 53(2) Journal of African Law 289.

Al-Dafa B, 'Strategies and Goals for Environmental Sustainability' (2008) 38(3) Environmental Policy and Law 154.

Amanchukwu R. N, Amadi-Ali T. G. and Ololube N. P, 'Climate Change Education in Nigeria: The Role of Curriculum Review' (2015) 5(3) Education 71.

Amechi E. P, 'Linking Environmental Protection and Poverty Reduction in Africa: an analysis of the regional legal responses to environmental protection' (2010) 6(2) Law, Environment and Development Journal 112.

Amechi E. P, 'Strengthening Environmental Public Interest Litigation through Citizen Suits in Nigeria: Learning from the South African Environmental Jurisprudential Development' (2015) 23(3) African Journal of International and Comparative Law 383.

Amobi D. and Onyishi T, 'Governance and Climate Change in Nigeria: A Public Policy Perspective' (2015) 9(2) Journal of Policy and Development Studies 199.

Anand S. V, 'Global Environmental Issues' (2013) 2(2) Open Access Scientific Reports 1 <<u>https://www.omicsonline.org/scientific-reports/2157-7617-SR-632.pdf</u>> accessed 15 August 2018.

Anomohanran O, 'Estimating the Greenhouse Gas Emission from Petroleum Product Combustion in Nigeria' (2011) 11(17) Journal of Applied Sciences 3209.

Anwadike B. C, 'Kyoto Protocol and the Challenges of Implementation in Nigeria' (2017) 13(1) Journal of Geography, Environment and Earth Science International 1.

Arora N. K, 'Environmental Sustainability: necessary for survival' (2018) 1 Environmental Sustainability 1.

Ati O. F, Agubamah E. and Abaje I. B, 'Global Climate Change Policies and Politics: Nigeria's Response' (2018) 1(1) FUDMA Journal of Politics and International Affairs 106.

Atkeson A. and Kehoe P. J, 'Modelling the Transition to a New Economy: Lessons from Two Technological Revolutions' (2007) 97(1) the American Economic Review 64.

Awojobi O. N. and Tetteh J, 'The Impacts of Climate Change in Africa: A Review of the Scientific Literature' (2017) 5(11) Journal of International Academic Research for Multidisciplinary 40.

Ayanlade A. and Jegede M. O, 'Climate Change Education and Knowledge Among Nigerian University Graduates' (2016) 8(4) Weather, Climate and Society 465.

Baker S. H, 'Climate Change and International Economic Law' (2016) 43(1) Ecology Law Quarterly 53.

Batruch C, 'Climate Change and Sustainability in the Energy Sector' (2017) 10(5) Journal of World Energy and Business 444.

Beer C. T, 'Climate Justice, the Global South and Policy Preferences of Kenyan Environmental NGOs' (2014) 8(2) The Global South 84.

Bell D, 'Global Climate Justice, Historical Emissions, and Excusable Ignorance' (2011) 94(3) The Monist: Morality and Climate Change 391.

Bettauer R. J, 'International Environmental Law-Making and the International Court of Justice' (2011) 105 American Society of International Law 61.

Biber E, 'Climate Change and Backlash' (2009) 17 N. Y. U. Environmental Law Journal 1295.

Blanchard A. and Vanderlinden JP, 'Dissipating the Fuzziness around Interdisciplinarity: The case of Climate Change research' (2010) 3(1) SAPIENS 1 http://sapiens.revenue.org/990 accessed 10 May 2018.

Blanchard A. and Vanderlinden JP, 'Pre-requisites to Interdisciplinary Research for Climate Change: Lessons from a participatory action research process in Ile-de-France' (2013) 16 (1/2) Int. J. Sustainable Development 1.

Bodansky D, 'The Copenhagen Climate Change Conference: a Postmortem' (2010) 104(2) the American Journal of International Law 230.

Bodansky D, 'The Legal Character of the Paris Agreement' (2016) 25(2) Review of European, Comparative and International European Law 142.

Bratspies R, 'Do We Need a Human Right to a Healthy Environment?' (2015) 13(1) Santa Clara Journal of International Law 31.

Bulhan H. A, 'Stages of Colonialism in Africa: From Occupation of Land to Occupation of Being' (2015) 3(1) Journal of Social and Political Psychology 239.

Bulkeley H, 'Governing Climate Change: the Politics of Risk Society?' (2001) 26 Transactions of the Institute of British Geographers 430.

Burkett M, 'Behind the Veil: climate migration, regime shift and a new theory of justice' (2018) 53 Harvard Civil Rights-Civil Liberties Law Review 445.

Burns S. P, Molotch N. P. et al, 'Snow Temperature Changes within a Seasonal Snowpack and the Relationship to Turbulent Fluxes of Sensible and Latent Heat' (2014) 15 Journal of Hydrometeorology 117.

Callicott J. B, 'Non-Anthropocentric Value Theory and Environmental Ethics' (1984) 21(4) American Philosophical Quarterly 299.

Campbell D, 'What does the Paris Agreement actually do?' (2016) 27(8) Energy & Environment 883.

Caney S, 'Cosmopolitan Justice, Responsibility and Global Climate Change' (2005) 18(4) Leiden Journal of International Law 747.

Carlarne C, 'Delinking International Environmental Law and Climate Change' (2014) 4(1) Michigan Journal of Environmental and Administrative Law 1.

Carpenter C, 'Businesses, Green Groups and the Media: the Role of Non-Governmental Organizations in the Climate Change Debate' (2001) 77(2) International Affairs 313.

Carvalho J, 'Law, Language and Knowledge: Legal Transplants from a Cultural Perspective' (2019) 20 German Law Journal 21.

Caytas J. D, 'The COP21 Negotiations: One Step Forward, Two Steps Back' (2018) 19(1) Consilience: The Journal of Sustainable Development 1.

Chinowsky P, Hayles C. et al, 'Climate Change: Comparative Impact on Developing and Developed Countries' (2011) 1(1) the Engineering Project Organization Journal 67.

Chisadza B, Tumbare M. J. et al, 'Linkages between local knowledge drought forecasting indicators and scientific drought forecasting parameters in the Limpopo River Basin in Southern Africa' (2015) 12 International Journal of Disaster Risk Reduction 226.

Church J, 'Enforcing the Climate Change Act' (2015) 4(1) UCL Journal of Law and Jurisprudence 109.

Corbera E. and Friedli C, 'Planting Trees through the Clean Development Mechanism: a Critical Assessment' (2012) 12(1/2) Ephemera: Theory & Politics in Organization 206.

Cuniberti G, 'Enhancing Judicial Reputation through Legal Transplants: Estoppel Travels to France' (2012) 60(2) the American Journal of Comparative Law 383.

Dados N. and Connell R, 'The Global South' (2012) 11(1) Contexts 12.

Davis K. and Riddell T, 'The Warming War: How Climate Change is Creating Threats to International Peace and Security' (2017) 30(1) The Georgetown Environmental Law Review 47.

Deere-Birkbeck C, 'Global Governance in the context of Climate Change: the Challenges of Increasingly Complex Risk Parameters' (2009) 85(6) International Affairs 1173.

Dei G. J. S, 'Sustainable Development in the African Context: revisiting some theoretical and methodological issues' (1993) 18(2) Africa Development 97.

Depledge M. and Carlarne C, 'Sick of the Weather: Climate Change, Human Health and International Law' (2007) 9 Environment Law Review 231.

Dernbach J. C. and Cheever F, 'Sustainable Development and Its Discontents' (2015) 4(2) Transnational Environmental Law 247.

Devall B, 'The Deep Ecology Movement' (1980) 20(2) Natural Resources Journal 299.

Di Paola M. and Jamieson D, 'Climate Change and the Challenges to Democracy' (2018) 72(2) University of Miami Law Review 369.

Dolidze A, 'Bridging Comparative and International Law: Amicus Curiae Participation as a Vertical Legal Transplant (2015) 26(4) European Journal of International Law 851.

Dorn M, 'Summary of the Conference on Global Environmental Governance' (2007) 19(2) Georgetown International Environmental Law Review 303.

Dowd R. and McAdam J, 'International Cooperation and Responsibility Sharing to Combat Climate Change: Lessons for International Refugee Law' (2017) 18(2) Melbourne Journal of International Law 180.

Dumic I. and Severnini E, "Ticking Bomb": The Impact of Climate Change on the Incidence of Lyme Disease' (2018) Canadian Journal of Infectious Diseases and Medical Microbiology 1.

du Pont Y. R. and Meinshausen M, 'Warming Assessment of the bottom-up Paris Agreement Emission Pledges' (2018) 9(4810) Nature Communications 1.

Ebele N. E. and Emodi N. V, 'Climate Change and its Impact in Nigerian Economy' (2016) 10(6) Journal of Scientific Research and Reports 1.

Eckersley R, 'Beyond Human Racism' (1998) 7(2) Environmental Values 165.

Efevwerhan D. I, 'The Kyoto Protocol and Oil – Dependent Economies of Developing Nations: Nigeria in Focus' (2006) 4 OGEL 10.

Egede E, 'Bringing Human Rights Home: an examination of the domestication of human rights treaties in Nigeria' (2007) 51(2) Journal of African Law 249.

Egunjobi L, 'Issues in Environmental Management for Sustainable Development in Nigeria' (1993) 13 Environmentalist 33.

Eisen J. B, 'From Stockholm to Kyoto and Back to the United States: International Environmental Law's Effect on Domestic Law' (1999) 32 University of Richmond Law Review 1435.

Emeh I. E. J, 'Dependency Theory and Africa's Underdevelopment: a Paradigm Shift from Pseudo-Intellectualism: the Nigerian Perspective' (2013) 1 International Journal of African and Asian Studies 116.

Emerson R, 'Colonialism' (1969) 4(1) Journal of Contemporary History 3.

Etieyibo E, 'Anthropocentrism, African Metaphysical Worldview, and Animal Practices: a reply to Kai Horsthemke' (2017) 7(2) Journal of Animal Ethics 145.

Ezroj A, 'Climate Change and International Norms' (2011) 27 Journal of Land Use and Environmental Law 72.

Fadairo O, Calland R. et al, 'A Corruption Risk Assessment for Reducing Emissions from Deforestation and Forest Degradation in Nigeria' (2017) 10(1) The International Journal of Climate Change: Impacts and Responses 1.

Fairbanks S. J, 'Climate Change and Moral Responsibility' (2014) 4 Earth Jurisprudence and Environmental Justice Journal 57.

Farber D. A, 'A Legal Framework for Climate Adaptation Assessment' (2009) 9(14) Resources For The Future 1.

Farkas B, 'Quality of Governance and Varieties of Capitalism in the European Union: Core and Periphery Division?' (2019) 31(5) Post-Communist Economies 563.

Ferrando F, 'The Party of the Anthropocene: post-humanism, environmentalism and the postanthropocentric paradigm shift' (2016) 4(2) Relations Beyond Anthropocentrism 159.

Ferris E. and Bergmann J, 'Soft Law, Migration and Climate Change Governance' (2017) 8(1) Journal of Human Rights and the Environment 6.

Franck S, Bounama C. and von Bloh W, 'Causes and Timing of Future Biosphere Extinctions' (2006) 3(1) Biogeosciences 85.

Friday O. O, 'Climate Change – A Global Perspective: The Case of Nigeria' (2012) 5(3) Journal of Politics and Law 33.

Galbraith J, 'From Treaties to International Commitments: The Changing Landscape of Foreign Relations Law' (2017) 84(4) The University of Chicago Law Review 1675.

Gladwin T. G, Kennelly J. J. and Krause TS, 'Shifting Paradigms for Sustainable Development: Implications for Management Theory and Research' (1995) 20(4) Academy of Management Review 874.

Godden L, 'Death, Desire, Modernity and Redemption: Climate Change and Public International Environmental Law' (2009) 10(2) Melbourne Journal of International Law 543.

Goldbach T. S, 'Why Legal Transplants' (2019) 15 Annual Review of Law and Social Science 583.

Gonzalez C. G, 'Bridging the North-South Divide: International Environmental Law in the Anthropocene' (2015) 32 Pace Environmental Law Review 407.

Grossman M. R, 'Climate Change and the Law' (2010) 58 American Journal of Comparative Law 223.

Gunningham N, 'The New Collaborative Environmental Governance: The Localization of Regulation' (2009) 36(1) Journal of Law and Society 145.

Haas P, 'Is Sustainable Development Politically Sustainable?' (1996) 3(2) Brown Journal of World Affairs 239.

Hardin G, 'The Tragedy of the Commons' (1968) 162(3859) Science 1243.

Harper C. K, 'Climate Change and Tax Policy' (2007) 30(2) Boston College International and Comparative Law Review 411.

Harvard Law Review Association, 'Developments in the Law: International Environmental Law' (1991) 104(7) Harvard Law Review 1484.

Heinzerling L, 'The Role of Science in Massachusetts v. EPA' (2008) 58 Emory Law Journal 411.

Henderson G. E, 'Rawls and Sustainable Development' (2011) 7(1) McGill International Journal of Sustainable Development Law and Policy 1.

Hilson C, 'It's All About Climate Change Stupid! Exploring the Relationship Between Environmental Law and Climate Law' (2013) 25(3) Journal of Environmental Law 359.

Holden E, Linnerud K. and Banister D, 'Sustainable Development: Our Common Future revisited' (2014) 26 Global Environmental Change 130.

Hopwood B, Mello M. and O'Brien G, 'Sustainable Development: Mapping Different Approaches' (2005) 13(1) Sustainable Development 38.

Horner R, 'Towards a new Paradigm of Global Development? Beyond the Limits of International Development' (2020) 44(3) Progress in Human Geography 415.

Hove H, 'Critiquing Sustainable Development: A Meaningful way of Mediating the Development Impasse?' (2004) 1(1) Undercurrent 48.

Hsu S, 'Fairness versus Efficiency in Environmental Law' (2004) 31(2) Ecology Law Quarterly 303.

Hussein D. S, Jermsittiparsert K. and Ahmad P, 'The Importance of the Rule of Law in Governance' (2019) 6(1) Journal of University of Raparin 73.

Hutchinson M. and Laborde I, 'Cap and Trade: The View from the United Kingdom' (2012) 26(4) Natural Resources & Environment 40.

Hutchinson T. and Duncan N. J, 'Defining and Describing what we do: Doctrinal Legal Research' (2012) 17 (1) Deakin Law Review 83.

Idowu A. A, Ayoola S. O. et al, 'Impacts of Climate Change in Nigeria' (2011) 2(2) Iranica Journal of Energy and Environment 145.

Ijaiya H. and Joseph O. T, 'Rethinking Environmental Law Enforcement in Nigeria' (2014) 5 Beijing Law Review 306.

Iqbal I. and Pierson C, 'A North-South Struggle: Political and Economic Obstacles to Sustainable Development' (2016) 16(2) Sustainable Development Law & Policy 16.

Inokoba P. K, Suenu A. and Perepreghabofa J, 'The African Metaphysical Worldview and its Prostrate Condition of Backwardness' (2010) 29(1) Journal of Human Ecology 23.

Jobodwana Z. N, 'Africa, Global Warming and Climate Change Environmental Court' (2011) 8 US-China Law Review 217.

Jordanova L, 'The Interpretation of Nature: A Review Article' (1987) 27(1) Comparative Studies in Society and History 195.

Kacowicz A. M, 'Globalization, Poverty, and the North-South Divide' (2007) 9(4) International Studies Review 565.

Karari P, 'Modus Operandi of Oppressing the "Savages": The Kenyan British Colonial Experience' (2018) 25(1) Peace and Conflict Studies 1.

Kates R, Parris T. and Leiserowitz A, 'What is Sustainable Development? : goals, indicators, values and practice' (2005) 47(3) Environment: Science and Policy for Sustainable Development 8.

Kimani N, 'Participatory Aspirations of Environmental Governance in East Africa' (2010) 6(2) Law, Environment and Development Journal 200.

Klein J. T, 'Interdisciplinary Needs: The Current Context' (1996) 45(2) Library Trends 134.

Klein N, 'Let Them Drown: The Violence of Othering in a Warming World' (2016) 38(11) London Review of Books 1.

Kopnina H, Washington H. et al, 'Anthropocentrism: more than just a misunderstood problem' (2018) 31 Journal of Agricultural and Environmental and Ethics 109.

Kretz L, 'Climate Change: Bridging the Theory-Action Gap' (2012) 17(2) Ethics and the Environment 9.

Kroeze I. J, 'Legal Research Methodology and the Dream of Interdisciplinarity' (2013) 16(3) PELJ 36.

Ladan M. T, 'Recent Trends in Environmental Regulations in Nigeria' (2014) 44(5) Environmental Law and Policy 461.

Ladan S. I, 'The Environment and Environmental Law in Nigeria' (2007) 3(1) Environmental Watch Journal of Environmental Law 232.

Larsson M, 'Legal Definitions of the Environment and of Environmental Damage' (1999) 35 Stockholm Institute for Scandinavian Law 155.

Lazarus R. J, 'Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future' (2009) 9(5) Cornell Law Review 1153.

Lin A. C, 'Evangelizing Climate Change' (2009) 17 N. Y. U. Environmental Law Journal 1135.

Liverman D, 'Conventions of Climate Change: Constructions of Danger and the Dispossession of the Atmosphere' (2009) 35 Journal of Historical Geography 279.

Lockwood M, 'The Political Sustainability of Climate Policy: the Case of the UK Climate Change Act' (2013) 23(5) Global Environmental Change 1339.

Man W, Zhou T. and Jungclaus J. H, 'Effects of Large Volcanic Eruptions on Global summer Climate and East Asian Monsoon Changes during the Last Millennium: Analysis of MPI-ESM' (2014) 27(19) Journal of Climate 7394.

Maniruzzaman A. F. M, 'State Contracts in Contemporary International Law: monist versus dualist controversies (2001) 12 European Journal of International Law 309.

Mayer B. and Rajavuori M, 'State Ownership and Climate Change: Overcoming the Carbon Curse' (2017) 11(3) Carbon & Climate Law Review 223.

Mbaya P. Y, Tella C. M. and Adola R. A, 'The Process of Law Making in a Presidential System of Government: The Nigerian Experience' (2013) 9(2) Asian Social Science 106.

Mboya A, 'Human Rights and the Global Climate Change Regime' (2018) 58(1) Natural Resources Journal 51.

McEldowney J. and Salter D, 'Environmental Taxation in the UK: the Climate Change Levy and Policy Making' (2015) 28 Denning Law Journal 37.

Meadowcroft J, 'Who is in Charge here? Governance for Sustainable Development in a Complex World' (2007) 9(3-4) Journal of Environmental Policy and Planning 299.

Merrill J, 'Climate Change and its effect on Indigenous Peoples of the Southwest' (2013) 38(1) American Indian Law Review 225.

Michaels P. J. and Knappenberger P. C, 'Climate Data vs. Climate Models: Why do climate change assessments overlook the difference between the climate models they use and the empirical data?' (2013) 36 CATO Regulation 32.

Mills M, Van de Bunt G. G. and de Bruijn J, 'Comparative Research: Persistent Problems and Promising Solutions' (2006) 21(5) International Sociology Association 619.

Mohajan H. K, 'Poverty and Economic Development of Kenya' (2013) 18(1) International Journal of Information Technology and Business Management 72.

Nagle J. C, 'Climate Exceptionalism' (2010) 40(1) Environmental Law 53.

Nasong'O W. S, 'Environmental Policy and Practice in Kenya: Between Cornucopians and Neo-Malthusians' (2017) 3(1) The International Journal on Green Growth and Development 1.

Niles M. T. and Mueller N. D, 'Farmer Perceptions of Climate Change: associations with observed temperature and precipitation trends, irrigation and climate beliefs' (2016) 39 Global Environmental Change Journal 133.

Nopens P, 'The Impact of Global Warming on the Geopolitics of the Artic: A Historical Opportunity for Russia?' (2010) 8 EGMONT Royal Institute for International Relations 1.

Null S. E. and Lund J. R, 'Reassembling Hetch Hetchy: water supply without O'Shaughnessy dam' (2006) 42(2) JAWRA 395.

Nwankwoala H. N. L, 'Causes of Climate and Environmental Changes: The need for Environmental-Friendly Education Policy in Nigeria' (2015) 6(30) Journal of Education and Practice 224.

O'Connell M. E, 'Enforcement and the Success of International Environmental Law' (1995) 3(1) Indiana Journal of Global Legal Studies 47.

O'Hara D. P. and Abelsohn A, 'Ethical Response to Climate Change' (2011) 16(1) Ethics and Environment 25.

Obabori A. O, Ekpu A. O. and Ojealaro B. P, 'An Appraisal of the Concept of Sustainable Environment under Nigerian Law' (2009) 28(2) J. Hum Ecol. 138.

Oberthur S. and Kelly C. R, 'EU Leadership in International Climate Policy: Achievements and Challenges' (2008) 43(3) The International Spectator 35.

Odeh L. E, 'A Comparative Analysis of Global North and Global South Economies' (2010) 12(3) Journal of Sustainable Development in Africa 338.

Odeku K. and Meyer E, 'Climate Change Surge: Implementing Stringent Mitigation and Adaptation Strategies in South Africa' (2010) 54(2) Journal of African Law 159.

Ogbeidi M, 'Political Leadership and Corruption in Nigeria Since 1960: A Socio-economic Analysis' (2012) 1(2) Journal of Nigerian Studies 1.

Ogbodo G. S. and Stewart F. N, 'Climate Change and Nigeria's Sustainable Development of Vision 20-2020' (2014) 20 Ann. Surv. Int'l & Comp. L. 17.

Ogbodo G. S, 'Environmental Protection in Nigeria: Two Decades after the Koko Incident' (2009) 15(1) Annual Survey of International and Comparative Law 1.

Ogbuabor J. E. and Egwuchukwu E. I, 'The Impact of Climate Change on the Nigerian Economy' (2017) 7(2) International Journal of Energy, Economics and Policy 217.

Ogbumgbada C. C, 'The Paris Agreement: an imperfect but progressive document' (2016) 8 International Energy Law Review 320.

Ogunba A, 'An Appraisal of the Evolution of Environmental Legislation in Nigeria' (2016) 40 Vermont Law Review 673.

Ogunleye F, 'Environmental Sustainability in Nigeria: The "Awareness" Imperative' (2004) 32 (1/2) African Issues 41.

Ojo A, Papachristodoulou N. and Ibeh S, 'The Development of an Infrastructure Quality Index for Nigerian Metropolitan Areas using Multivariate Geo-Statistical Data Fusion' (2018) 2(3) Urban Science 1.

Ojo E. O, 'Nigeria, 1914-2014: From Creation to Cremation?' (2014) 23 Journal of the Historical Society of Nigeria 67.

Ojo E. O, 'Underdevelopment in Africa: Theories and Facts' (2016) 41(1) The Journal of Social, Political and Economic Studies 89.

Ojwang L, Rosendo S. et al, 'Assessment of Coastal Governance for Climate Change Adaptation in Kenya' (2017) 5(11) Earth's Future 1119.

Okeke C. E. and Anushiem M. I, 'Implementation of Treaties in Nigeria: issues, challenges and the way forward' (2018) 9(2) Nnamdi Azikwe University Journal of International Law and Jurisprudence 216.

Okeke C. N, 'The Use of International Law in the Domestic Courts of Ghana and Nigeria' (2015) 32(2) Arizona Journal of International and Comparative Law 371.

Okonkwo T, 'Protecting the Environment and People from Climate Change through Climate Change Litigation' (2017) 10(5) Journal of Politics and Law 66.

Olashore O. O, 'Implementation of the International Legal Framework regarding Climate Change in Developing Countries: A review of Nigeria, Kenya and Botswana's Environmental Provisions Governing Climate Change' (2019) 21(3) Environmental Law Review 189.

Omofonmwan S. I. and Osa-Edoh G. I, 'The Challenges of Environmental Problems in Nigeria' (2008) 23(1) J. Hum Ecol. 53.

Omorede C, 'Assessment of the Impacts of Oil and Gas Resource Exploration on the Environment of Selected Communities in Delta State, Nigeria' (2014) 3(2) International Journal of Management, Economics and Social Sciences 79.

Omorogbe Y, 'A Status Report on Climate Change and the Kyoto Protocol in Nigeria' (2006) 2 International Energy Law and Taxation Review 43.

Onomrerhinor F. A, 'A Re-examination of the Requirement of Domestication of Treaties in Nigeria' (2016) 7 Nnamdi Azikwe University Journal of International Law and Jurisprudence 17.

Osofsky H. M, 'Is Climate Change "International"? Litigation's Diagonal Regulatory Role' (2009) 49(3) Virginia Journal of Law 585.

Osunyikanmi F. A, 'Anglo-Nigerian Relations in the First Twenty-Five Years of Nigeria's Independence: A Critical Analysis' (2019) 6(2) World Journal of Social Science Research 205.

Oyedepo S. O, 'Energy and Sustainable Development in Nigeria: the way forward' (2012) 2(15) Energy, Sustainability and Society 1.

Peel J, 'Climate Change Law: The Emergence of a New Legal Discipline' (2008) 32(3) Melbourne University Law Review 922.

Peel J, 'Divergent Responses to Climate Change in a Multipolar World: A View from Down Under' (2013) 107 American Society of International Law 76.

Petersen B. V. and Bollerup K, 'The Clean Development Mechanism and Its Failure in Delivering Sustainable Development' (2012) 8(1) the Interdisciplinary Journal of International Studies 75.

Peterson A. C, 'Articulating Moral Bases for Regional Responses to Deforestation and Climate Change: Africa' (2013) 38(1) William and Mary Environmental Law and Policy Review 81.

Pidgeon N, 'Public Understanding of, and Attitudes to, Climate Change: UK and International Perspectives and Policy' (2012) 12(1) Climate Policy 85.

Pincus S. 'Reconfiguring the British Empire' (2012) 69(1) the William and Mary Quarterly 63.

Pinto B, 'Nigeria During and After the Oil Boom: A Policy Comparison with Indonesia' (1987) 1(3) The World Bank Economic Review 420.

Pooja L. T, Pooja P and Ranveer A. C, 'The Greenhouse Effect and its Impacts on Environment' (2015) 1(3) IJIRCT 333.

Price R, 'One Big Thing: Britain, Its Empire, and Their Imperial Culture' (2006) 45(3) Journal of British Studies 602

Purser R. E, Park C. and Montuori A, 'Limits to Anthropocentrism: Towards an Ecocentric Organization Paradigm?' (1995) 20(4) Academy of Management Review 1053.

Rajamani L, 'Ambition and differentiation in the 2015 Paris Agreement: interpretative possibilities and underlying politics' (2016) 26 I.C.L.Q 2.

Rajamani L, 'The Making and Unmaking of the Copenhagen Accord' (2010) 59(3) the International and Comparative Law Quarterly 824.

Rathbun B. C, 'The Magnificent Fraud: Trust, International Cooperation, and the Hidden Domestic Politics of American Multilateralism after World War II' (2011) 55(1) International Studies Quarterly 1.

Ripple W. J, Wolf C. et al, 'World Scientists' Warning of a Climate Emergency' (2020) 70(1) BioScience 8.

Rittel H. and Webber M, 'Dilemmas in a General Theory of Planning' (1973) 4(2) Policy Science 155.

Rodoman B. B, 'The Organized Anthroposphere' (2014) 9 Soviet Geography Journal 1.

Roesler S. M, 'Evaluating Corporate Speech about Science' (2018) 106 Georgetown Law Journal 447.

Romm N. R. A, 'Interdisciplinary Practice as Reflexivity' (1998) 11(1) Systematic Practice and Action Research 63.

Roose M, 'Greenpeace, Social Media and the Possibility of Global Deliberation on the Environment' (2012) 19(1) Indiana Journal of Global Legal Studies 347.

Rosen-Zvi I, 'Climate Change Governance: Mapping the Terrain' (2011) 5(2) Carbon and Climate Law Review 234.

Ross A, 'Modern Interpretations of Sustainable Development' (2009) 36(1) Journal of Law and Society 32.

Ruhl J. B, 'Climate Change Adaptation and the Structural Transformation of Environmental Law' (2010) 40 Environmental Law 363.

Sanganyado E, Teta C. and Masiri B, 'Impact of African Traditional Worldview on Climate Change Adaptation' (2018) 14(2) Integrated Environmental Assessment and Management 189.

Sanwal M, 'Sustainable Development Perspective of Climate Change' (2008) 43(15) Economic and Political Weekly 49.

Sarkar S. K, Begum R. A. et al, 'Impacts of and Adaptations to Sea Level Rise in Malaysia' (2014) 11(2) Asian Journal of Water, Environment and Pollution 29.

Schiermeier Q, 'The Kyoto Protocol: Hot Air' (2012) 491 Nature 656 <<u>https://www.nature.com/polopoly_fs/1.11882!/menu/main/topColumns/topLeftColumn/pdf/</u>491656a.pdf> accessed 30 April 2019.

Scholtz W, 'Equity as the Basis for a Future International Climate Change Agreement: Between Pragmatic Panacea and Idealistic Impediment. The Optimisation of the CBDR Principle via Realism' (2009) 42(2) The Comparative and International Law Journal of Southern Africa 170.

Scotford E, Minas S. and Macintosh A, 'Climate Change and National Laws across Commonwealth Countries' (2017) 43(3-4) Commonwealth Law Bulletin 318.

Sealey-Huggins L, ''1.5°C to Stay Alive': Climate Change, Imperialism and Justice for the Caribbean' (2017) 38(11) Third World Quarterly 2444.

Segger M, 'Advancing the Paris Agreement on Climate Change for Sustainable Development' (2016) 5(2) Cambridge Journal of International and Comparative Law 202.

Serdeczny O, Adams S. et al, 'Climate Change Impacts in Sub-Saharan Africa: from Physical Changes to their Social Repercussions' (2016) 15(8) Regional Environmental Change 1 <<u>https://climateanalytics.org/media/ssa_final_published.pdf</u>> accessed 2 November 2019.

Shellenberger M. and Nordhaus T, 'The Death of Environmentalism: Global Warming Politics in a Post-environmental World' (2009) 1(1) Geopolitics, History and International Relations 121.

Siyum N, 'Why Africa remains underdeveloped despite its potential? Which theory can help Africa to develop? (2018) 1(2) Open Access Biostatistics & Bioinformatics 1.

Stallworthy M, 'Environmental Justice Imperatives for an Era of Climate Change' (2009) 36(1) Journal of Law and Society 55.

Steiner A, Kimball L. A. and Scanlon J, 'Global Governance for the Environment and the role of Multilateral Environmental Agreements in Conservation' (2003) 37(2) Oryx, 227.

Steynor A. and Pasquini L, 'Informing Climate Services in Africa through Climate Change Risk Perceptions' (2019) 15(100112) Climate Services 1.

Suberu O. J, Ajala O. A, et al, 'Diversification of the Nigerian Economy towards a Sustainable Growth and Economic Development' (2015) 3(2) International Journal of Economics, Finance and Management Sciences 107.

Wabwile M. N, 'The Place of English Law in Kenya' (2003) 3(1) Oxford University Commonwealth Law Journal 51.

Weiner J. B, 'Something Borrowed for Something Blue: Legal Transplants and the Evolution of Global Environmental Law' (2001) 27 Ecology Law Quarterly 1295.

Weiss E. B, 'International Law in a Kaleidoscopic World' (2011) 1(1) Asian Journal of International Law 21.

Williams A, 'Solidarity, Justice and Climate Change Law' (2009) 10(2) Melbourne Journal of Law 493.

Winchester B. N, 'Emerging Global Environmental Governance' (2009) 16(1) Indiana Journal of Global Legal Studies, 7.

Xanthaki H, 'Legal Transplants in Legislation: Diffusing the trap' (2008) 57 International Comparative Law Quarterly 659.

Yang T. and Percival R. V, 'The Emergence of Global Environmental Law' (2009) 36 Ecology Law Quarterly 615.

Yoshikazu N, 'Historical Contexts and Logics of American Expansionism' (2008) 25 Ritsumikan Law Review 123.

Yusuf H, 'The Judiciary and Political Change in Africa: Developing transitional jurisprudence in Nigeria' (2009) 7(4) International Journal of Constitutional Law 654.

Zahar A, 'Collective Obligation and Individual Ambition in the Paris Agreement' (2020) 9(1) Transnational Environmental Law 165.

Zapatrina I, 'Sustainable Development Goals for Developing Economies and Public-Private Partnership' (2016) 11(1) European Procurement and Public Private Partnership Law Review 39.

POLICY DOCUMENTS

Allen M, Babiker B. et al, 'Summary for Policymakers' in Delmotte M, Zhai P. et al (eds), 'Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and efforts to Eradicate Poverty' (2018) IPCC <https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf > accessed 13 August 2019

Atakos V, 'Change for the Better' (2016) Climate Change, Agriculture and Food Security <<u>https://ccafs.cgiar.org/sites/default/files/CCAFS_2016_Annual_Report.pdf</u>> accessed 24 November 2019.

Baede A. P. M, Ahlonsou E. et al, 'The Climate System: an Overview' in Houghton J. T, Ding Y. et al (eds), 'Climate Change 2001: The Scientific Basis' (2001) Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) <https://www.ipcc.ch/ipccreports/tar/wg1/pdf/WGI_TAR_full_report.pdf> accessed 9 April 2018.

Center for Climate and Energy Solutions, 'Outcomes of the UN Climate Change Conference in Paris' December 2015 <<u>https://www.c2es.org/site/assets/uploads/2015/12/outcomes-of-the-u-n-climate-change-conference-in-paris.pdf</u>> accessed 21 May 2019.

Committee on Climate Change, 'Net Zero: The UK's Contribution to stopping Global Warming' (2019) 8 <<u>https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/</u>> accessed 22 November 2019.

Conference of Parties Serving as the Meeting of the Parties to the Kyoto Protocol (2012) FCCC/KP/CMP/2012/13.

Cubasch U, Wuebbles D. et al, 'Introduction' in Stocker T. F, Qin D. et al (eds), 'Climate Change 2013: The Physical Science Basis' (2013) Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) <https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter04_FINAL.pdf> accessed 21 April 2018.

Department for Business, Energy & Industrial Strategy, 'UK Becomes First Major Economy to Pass Net Zero Emissions Law' (2019) <<u>https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law</u>> accessed 22 November 2019.

Framework Convention on Climate Change, Report of the Eleventh Session of the Conference of Parties (2005) FCCC/CP/2005/5/Add.1.

Framework Convention on Climate Change, Report of the Fifteenth Session of the Conference of Parties (2009) FCCC/CP/2009/11/Add.1.

Framework Convention on Climate Change, Report of the Nineteenth Session of the Conference of Parties (2013) FCCC/CP/2013/10/Add.1.

Framework Convention on Climate Change, Report of the Seventh Session of the Conference of Parties (2001) FCCC/CP/2001/13.

Framework Convention on Climate Change, Report of the Seventeenth Session of the Conference of Parties (2011) FCCC/CP/2011/9/Add.1.

Framework Convention on Climate Change, Report of the Sixteenth Session of the Conference of Parties (2010) FCCC/CP/2010/7/Add.1.

Framework Convention on Climate Change, Report of the Thirteenth Session of the Conference of Parties (2007) FCCC/CP/2007/6/Add.1.

Framework Convention on Climate Change, Report of the Twentieth Session of the Conference of Parties (2014) FCCC/CP/2014/10/Add.1.

Framework Convention on Climate Change, Report of the Twenty first Session of the Conference of Parties (2015) FCCC/CP/2015/10/Add.1.

Folland C. K, Karl T. R. et al, 'Observed Climate Variability and Change' in Houghton J. T, Ding Y. et al (eds), 'Climate Change 2001: The Scientific Basis' (2001) Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) <https://www.ipcc.ch/ipccreports/tar/wg1/pdf/WGI_TAR_full_report.pdf> accessed 9 April 2018.

Grantham Research Institute on Climate Change and the Environment, 'Nigeria' <<u>https://climate-laws.org/cclow/geographies/130/policies</u>> accessed 2 February 2020.

Huber D. G. and Gulledge J, 'Extreme Weather and Climate Change: Understanding the Link and Managing the Risk' (2011) Science and Impacts Program: Centre for Climate and Energy Solutions http://www.c2es.org/publications/extreme-weather-and-climate-change accessed 20 May 2018.

IPCC Working Group I, 'Policymakers Summary' in Houghton J. T, Jenkins G. J. and Ephraums J. J. (eds), *Climate Change: The IPCC Scientific Assessment* (CUP 1990).

Kramer K, 'Sinking Cities, Rising Seas: A Perfect Storm of Climate Change and BadDevelopmentChoices'(2018)Christian<<u>https://www.christianaid.org.uk/sites/default/files/2018-10/Christian-Aid-Sinking-cities-
rising-seas-report.pdf</u>> accessed 26 May 2019.

Le Treut H, Somerville R. et al, 'Historical Overview of Climate Change Science' in Solomon S, Qin D. et al (eds), 'Climate Change 2007: The Physical Science Basis' (2007) Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) https://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter1.pdf> accessed 21 April 2018.

Melilo J. M, Callaghan T. V. et al 'Effects on Ecosystem' in Houghton J. T, Jenkins G. J. and Ephraums J. J. (eds), *Climate Change: The IPCC Scientific Assessment* (CUP 1990).

Nielsen L, 'Classifications of Countries Based on Their Level of Development: How it is done and how it could be done' (2011) WP/11/31 International Monetary Fund (IMF) Working Paper.

Report of the World Commission on Environment and Development, *Our Common Future* (UN 1987) (the Brundtland Report).

Stocker T. F, Qin D. et al, 'Technical Summary' in Stocker T. F, Qin D. et al (eds), 'Climate Change 2013: The Physical Science Basis' (2013) Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) <https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter04_FINAL.pdf> accessed 21 April 2018.

Transforming our World: the 2030 Agenda for Sustainable Development, A/RES/70/1 (UN 2015) (SDGs)

UN-REDD Programme, 'Community Based REDD+ Programmes in Nigeria: A Success Story' (2018) https://www.un-redd.org/post/2018/06/21/community-based-redd-programme-in-nigeria-a-success-story accessed 6 February 2020.

United Nations Department of Economic and Social Affairs, *World Population Prospects: The* 2017 Revision (UN Department of Public Information, 21 June, 2017) <www.un.org/development/desa/publications/graphic/wpp2017-global-population> accessed 23 February 2018.

United Nations Framework Convention on Climate Change, Report of the Conference of Parties First Session (1995) FCCC/CP/1995/7.

United States Global Change Research Program (USGCRP), 'Climate Literacy: The Essential Principles of Climate Science' (2nd Version 2009) https://downloads.globalchange.gov/Literacy/climate_literacy_highres_english.pdf accessed 8 April 2018.

Vaughan D. G, Comiso J. C. et al, 'Observations: Cryosphere' in Stocker T. F, Qin D. et al (eds), 'Climate Change 2013: The Physical Science Basis' (2013) Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter04_FINAL.pdf> accessed 21 April 2018.

Warrick R. A. and Oerlemans H, 'Sea Level Rise' in Houghton J. T, Jenkins G. J. and Ephraums J. J. (eds), *Climate Change: The IPCC Scientific Assessment* (CUP 1990).

Yusuf H, 'Nigeria: The Colonial Legacy and Transitional Justice' (2017) Centre for the Study of Violence and Reconciliation 1.

Zillman J. W, 'A History of Climate Activities' (2009) 58(3) WMO Bulletin 141.

CONFERENCE PAPERS, SPEECHES, NEWSPAPER ARTICLES and

WEBSITES

Adegoroye A, 'The Challenges of Environmental Enforcement in Africa: The Nigerian Experience' (Third International Conference on Environmental Enforcement, Oaxaca, April 1994).

Anjorin O, 'Gas Flaring in Nigeria' (The Punch newspaper, 1 January, 2020) <<u>https://punchng.com/gas-flaring-in-nigeria/</u>> accessed 14 March 2020.

Birgen R, 'Reflections of the Lamu Coal Plant Case' Poverty' (Natural Justice, 25 July 2019) <<u>https://naturaljustice.org/reflections-of-the-lamu-coal-plant-case/</u>> accessed 02 July 2020.

CDM Registered activities: <<u>https://cdm.unfccc.int/Projects/projsearch.html</u>> accessed 10 July 2019.

Clement S. and Dennis B, 'Post-ABC poll: Nearly 6 in 10 oppose Trump scrapping Paris Agreement' (The Washington Post, 5 June, 2017) <<u>https://www.washingtonpost.com/news/energy-environment/wp/2017/06/05/post-abc-poll-nearly-6-in-10-oppose-trump-scrapping-paris-agreement/?utm_term=.70673db80d43> accessed 24 May 2019.</u>

'Climate Change: Trumps says US 'could conceivably' re-join the Paris deal' (BBC News, 11 January, 2018) http://www.bbc.co.uk/news/world-us-canada-42642331 accessed 7 March 2018.

Department of Climate Change <<u>http://climatechange.gov.ng/</u>> accessed 2 February 2020.

EU Emissions Trading System (EU ETS): <<u>https://ec.europa.eu/clima/policies/ets_en</u>> accessed 10 July 2019.

Falk R, 'Voluntary International Law and the Paris Agreement' (Global Justice in the 21st Century, 16 January, 2016) <<u>https://richardfalk.wordpress.com/2016/01/16/voluntary-international-law-and-the-paris-agreement/</u>> accessed 24 May 2019.

Federal Ministry of Environment Nigeria, 'About' <<u>http://environment.gov.ng/</u>> accessed 6 March 2020.

Federal Republic of Nigeria National Assembly, 'Bill Tracker' <<u>https://www.nassnig.org/documents/bill/10740</u>> accessed 10 July 2020.

Fraccia F, 'The Legal Definition of Environment: From Rights to Duties' (2005) Bocconi Legal Studies Research Paper 06/09, 11 <<u>http://ssrn.com/abstract=850488</u>> accessed 14 May 2014.

Fuchs M. H, 'The Ticking Bomb of Climate Change is America's Biggest Threat' (The
Guardian, 29 November, 2018)
<https://www.theguardian.com/commentisfree/2018/nov/29/ticking-bomb-climate-change-
america-threat> accessed 10 February 2020.

Gambino M, 'Is It Too Late For Sustainable Development? : Dennis Meadows thinks so. Forty Years after his book *The Limit to Growth*, he explains why' (Smithsonian Magazine, 15 March, 2012) <<u>https://www.smithsonianmag.com/science-nature/is-it-too-late-for-sustainabledevelopment-125411410/> accessed 20 May 2020.</u>

Gore A, 'We've Arrived at a Moment of Decision' (Huffington Post, 25 May, 2011) </br><www.huffingtonpost.com/al-gore/were-arrived-at-a-moment_b_161627.html> accessed 18January 2018.

Green C. P, Heywood J. S. and Navarro M, 'Did the London Congestion Charge Reduce Pollution?' (2018) Lancaster University Management School, Economic Working Paper Series 2018/007.

Gustin G, 'The Paris Climate Problem: a dangerous lack of urgency' (Inside Climate News, 7 November, 2019) <<u>https://insideclimatenews.org/news/07112019/paris-climate-agreement-pledges-lack-urgency-ipcc-timeline-warning</u>> accessed 22 June 2020.

Hashim A, 'At least 60 dead as Pakistan's Karachi sizzles in heatwave' (Aljazeera, 23 May, 2018) http://www.aljazeera.com/news/2018/05/kills-65-pakistan-karachi-180523080507561.html> accessed 24 May 2018.

Hoffman A. J. and Sandelands L. E, 'Getting right with nature: Anthropocentrism, Ecocentrism and Theocentrism' (2004) Ross School of Business Working Paper Series 903, 1 http://ssrn.com/abstract=901660> accessed 17 May 2014.

Hott L. and Garey D, 'The Wilderness idea: John Muir, Gifford Pinchot and the first great battle for wilderness' (1989) Video documentary by Direct Cinema Limited: Santa Monica, CA.

Howton E, 'Understanding Poverty' (World Bank Group, October 2019) <<u>https://www.worldbank.org/en/topic/poverty/overview#1</u>> accessed 29 October 2019.

Jaeger J, 'Developing Policies for Responding to Climate Change: a Summary of the Discussions and Recommendations of the Workshops held in Villach (28 September -2 October 1987) and Bellagio (9–13 November 1987) under the Auspices of the Beijer Institute, Stockholm' in Clark W. C. et al, *World Climate Programme Impact Studies* (World Metrological Organization 1988).

Kenya's Legislative Process <<u>http://www.parliament.go.ke/the-senate/house-business/bills-tracker</u>> accessed 24 April 2020.

Krishi M. A, 'Buhai Rejects Climate Change Bill, 4 Others' (Daily Trust, 21 March, 2019) <<u>https://www.dailytrust.com.ng/buhari-rejects-climate-change-bill-4-others.html</u>> accessed 26 May 2019.

Kokorin A. O, 'Impact on the Nature' in Chestin I. E. and Collof A. N. (eds), 'Russia and Neighboring Countries: Environmental, Economic and Social Impacts of Climate Change' (2008) WWF.

Levin K, Cashore B. et al, 'Playing it Forward: Path Dependency, Progressive Incrementalism, and the "Super Wicked" Problem of Global Climate Change' (International Studies Association Annual Convention, Chicago, February 2007).

List of countries that have accepted the Doha Agreement can be found on the UN website <<u>https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-</u> <u>c&chapter=27&clang=_en</u>> accessed 21 May 2019.

List of countries that have submitted their NDCs can be found on the UNFCCC website <<u>https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx</u>> accessed 27 May 2019.

Milman O, Smith D. and Carrington D, 'Donald Trump confirms US will quit Paris Climate Agreement' (The Guardian, 1 June, 2017) <<u>https://www.theguardian.com/environment/2017/jun/01/donald-trump-confirms-us-will-quit-paris-climate-deal</u>> accessed 23 March 2018.

National Environmental Standards and Regulations Enforcement Agency, 'Laws & Regulations' <<u>http://www.nesrea.gov.ng/regulations/index.html</u>> accessed 20 January 2020.

National Environmental Standards and Regulations Enforcement Agency (NESREA), 'National Policy on the Environment' <<u>https://www.nesrea.gov.ng/wp-content/uploads/2017/09/National-Policy-on-Environment.pdf</u>> accessed 5 March 2020.

Nigeria'sIntendedNationallyDeterminedContribution<<u>https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Nigeria%20First/Approved</u>%20Nigeria%27s%20INDC_271115.pdf> accessed 27 May 2019.
Slaughter A, 'The Paris Approach to Global Governance' (Project Syndicate, 28 December, 2015) <<u>https://www.project-syndicate.org/commentary/paris-agreement-model-for-global-governance-by-anne-marie-slaughter-2015-12?barrier=accesspaylog</u>> accessed 24 May 2019.

Smith M, 'Kenya Enters the Oil Business' (Petroleum Economist, 26 September 2019) <<u>https://www.petroleum-economist.com/articles/politics-economics/africa/2019/kenya-enters-the-oil-business</u>> accessed 02 July 2020.

StatusoftheParisAgreement:<<u>https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-</u>d&chapter=27&clang=_en> accessed 23 May 2019.

UK Legislative Process <<u>https://services.parliament.uk/bills/</u>> accessed 24 April 2020.

UNFCCC, 'Appendix I- Quantified Economy-Wide Emissions Targets 2020' <<u>https://unfccc.int/process/conferences/pastconferences/copenhagen-climate-change-</u> <u>conference-december-2009/statements-and-resources/appendix-i-quantified-economy-wide-</u> <u>emissions-targets-for-2020</u>> accessed 12 May 2019.

UNFCCC, 'Appendix II- Nationally Appropriate Mitigation Actions of Developing Country Parties' <<u>https://unfccc.int/process/conferences/pastconferences/copenhagen-climate-change-conference-december-2009/statements-and-resources/4</u>> accessed 12 May 2019.

United Nations Framework Convention on Climate Change treaty status <<u>https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=IND&mtdsg_no=XXVII-</u>7&chapter=27&Temp=mtdsg3&clang=_en> accessed 14 April 2020.

Velasquez-Manoff M, 'As Sea Levels Rise, so do Ghost Forests' (The New York Times, 8 October,2019) <<u>https://www.nytimes.com/interactive/2019/10/08/climate/ghost-</u> forests.html?te=1&nl=morning-

briefing&emc=edit_NN_p_20191009§ion=whatElse?campaign_id=9&instance_id=1294 9&segment_id=17708&user_id=7b3eb82e4651ae7a49de6acaed37b19c®i_id=71146706io n=whatElse> accessed 8 October 2019.

Walker P, Mason R. and Carrington D, 'Theresa May Commits to Net Zero UK Carbon Emissions by 2050' (The Guardian, 11 June 2019) <<u>https://www.theguardian.com/environment/2019/jun/11/theresa-may-commits-to-net-zero-uk-carbon-emissions-by-2050</u>> accessed 22 November 2019.

Watts J, 'We have 12 years to limit Climate Change catastrophe, warns UN' (The Guardian, 8 October, 2018) <<u>https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report</u>> accessed 13 August 2019.

World Metrological Organization, 'Proceedings of the World Climate Conference: a Conference of Experts on Climate and Mankind' (WMO No. 537, Geneva, February 1979) 1.

World Metrological Organization, 'Proceedings of the World Conference on the Changing Atmosphere: Implications for Global Security' (WMO No. 710, Geneva, June 1988) 1.

Zell H, 'Earth's Atmospheric Layers' (NASA, 7 August 2017) <<u>https://www.nasa.gov/mission_pages/sunearth/science/atmosphere-layers2.html</u>> accessed 15 May 2020.