Decision-making processes of African Leaders on climate change: A case study of the succession to the Kyoto-Protocol

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By

Saidat Aderonke Roni Ajao

A thesis submitted in partial fulfilment of the requirements for the Award of the Degree of Doctor of Business Administration

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ABSTRACT

The research examines the decision-making processes of African Leaders in the context of a common international issue. The *Theory of Bounded Rationality* is utilised as a theoretical framework. More specifically, the research explores how a group of African Leaders come together to make a common decision known as the *Common African Position* in relation to the succession to the Kyoto Protocol under the United Nations Framework Convention on Climate Change (UNFCCC). The originality of the research is contributed by decision-making processes utilising the *Bounded Rationality Theory* in the context of climate change. This is taken further by utilising the model in the decision-making processes of African Leaders as limited research has been conducted in this field in Africa. Researchers have argued that whilst extensive research has been undertaken in the US and UK, only a limited amount has been conducted in other regions (Elbanna and Child 2007). Furthermore, Hoskisson, et. al.,. (2000) argues that research on strategy practice in emerging economies such as China, and Latin America has not been matched with other regions such as, Africa and the Middle East. The originality of the research is also presented by the uniqueness of the case study. The study was conducted during the largest ever political gathering of world leaders – The Fifteen Session of the Conference of the Parties and the Fifth Session of the Meeting of the Parties of the UNFCCC (COP15) in Copenhagen, Denmark in December 2009. COP15 comprised 120 Heads of States and Governments and 193 national delegations including Member States of the continent of Africa. The research design was qualitative in nature. The methods for the primary data collection were Semi-structured Interviews, Focus Groups and Participant-Observation. Participants were Heads of Government, Ministers and other leaders, i.e. Secretary Generals, Ambassadors and Directors. Secondary data in the form of books, speeches, articles, newspapers, briefs and other publications were also utilised. The data was analysed using content analysis. The analyses revealed that the decision-making processes commenced two years before COP15. The decision-making processes were definitive, co-ordinated and structured involving a wide number of strategic organisations to the continent of Africa, i.e. the African Union Commission (AUC). The decision-making processes were largely followed by the group of African Leaders prior to and during the initial week of COP15. However, during the High-level Segment the dis-unity amongst African Member States became apparent. Bi-lateral deals with developed nations outside the African Common Position were at play, especially by South Africa and Ethiopia. The final outcome of COP15, the *'Copenhagen Accord'* further revealed the decision-making processes and decisions made by African Leaders were irrational. Individual country interests were paramount, resulting in a total failure by the African Group to maintain the Common African Position. The findings also revealed that due to the diverse nature of the impact of climate change on different African regions, the implications of a common decision in addressing climate change in the future should be circumvented. Limitations of the study include the high security level during COP15 due to the attendance of world leaders, the immense size of the event in terms of participants, and the large number of meetings, which made it impossible for the researcher to follow all activities that were pertinent to decision-making. The research makes contributions to academia and to practice. Academically, in the field of strategic decision-making and by the use of Bounded Rationality; and the application of the Theory of Bounded Rationality in the context of the decision-making processes of African Leaders is novel in the literature further contributed by the extraordinary United Nations COP15 Conference. Furthermore, the results support the assumptions of Bounded Rationality in decision-making. In the field of practice, it suggests ways in which the decision-making processes of African Leaders in an international setting can be improved as it relates to climate change. The research concludes with recommendations, areas for further research in the field of strategic decision-making and a reflection of the research journey.

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ABBREVIATIONS

ADP	Ad hoc Working Group on Long Term Co-operative Action
AfDB	African Development Bank
AMCEN	African Ministerial Conference on the Environment
ANOVA	Analysis of Variance
AOSIS	Alliance of Small Island States
AU	African Union
AUC	African Union Commission
AWG-LCA	Ad-hoc Working Group on Long-Term Cooperative Action
AWG-KP	Ad-hoc Working Group on further commitments for Annex I Parties under the Kyoto Protocol
BAP	Bali Action Plan
CAHSGOCC	Committee of African Heads of State and Governments on Climate Change
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CFA	Confirmatory Factor Analysis
CIS	Commonwealth of Independent States
CO_2	Carbon Dioxide
COP	Conference of the Parties
COP15	Fifteenth Session of the Conference of the Parties of the United Nations Climate Change Conference
DBA	Doctorate in Business Administration
DFID	Department for International Development
ECA	Economic Commission for Africa
EIT	Economics in Transition
ENB	Earth Negotiation Bulletin
EU	European Union
GCF	Green Climate Fund
G77	Group of Seventy Seven Countries and China under the UNFCCC
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
IPCC	Intergovernmental Panel on Climate Change
INC	International Negotiating Committee
LDCs	Least Developed Countries
KP	Kyoto Protocol
MANOVA	Multivariate Analysis of Variance
MOP	Meeting of the Parties
NGO	Non-Governmental Organization
N_2O	Nitrous Oxide

OLS	Ordinary Least Squares Regression or Linear Regression
OECD	Organisation for Economic Co-operation and Development
PCA	Principal Component Analysis
REDD	Reduced Emission from Deforestation and Forest Degradation
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SDs	Strategic Decisions
SDM	Strategic Decision-making
SEM	Structural Equation Modelling
TMT	Top Management Teams
TWB	Third World Bulletin
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCG	United Nations Communication Group
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change

STATEMENT OF COPYRIGHT

I, Saidat Aderonke (Roni) Ajao, certify that the content of this doctoral thesis has not been submitted for the award of any other degree and is not currently being submitted for any such degree.

The work presented in this thesis is the individual and creative work of the author. I certify that to the best of my knowledge any assistance that has been received in developing this thesis and all sources used have been acknowledged accordingly.

I also certify that this doctoral thesis does not exceed the stipulated word count as specified in the Doctorate in Business Administration University Guidelines submission requirements. The word count of this doctoral thesis excludes quotations, tables, the titles and associated text accompanying illustrations and pictures, the bibliography and appendices.

Ms Saidat Aderonke Roni Ajao

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DEDICATION

In loving memory of my dearest mother, Clara Somibe Ajao (Nee Pepple)

I miss you so very dearly. God bless your gentle soul as you rest in God's eternal peace.

EPIGRAPH

'Through wisdom is a house built;
And by understanding it is established;
And by knowledge shall the chambers be filled with all precious and pleasant riches'.
(KJV Proverbs 24: 3 – 4)

'… and by Him all things are possible'.

CHAPTER ONE LOOKING THROUGH THE RESEARCHLENS

1.1 INTRODUCTION

This chapter introduces the research by presenting the background to the thesis. The problem is discussed justifying the rationale for the research, culminating in the research aim, questions to be addressed. The various terminologies used in the thesis are also defined to clarify how these concepts are used and interpreted. The boundary of the research in terms of scope is delineated and the context in which the research is undertaken is also discussed. The chapter concludes with the organisation of the thesis and an overarching summary.

1.2 PURPOSE OF THE RESEARCH

There is a plethora of literature available on the topic of decision-making, including factors that lead to effective decision-making and the process of decision-making (Mele, 2010; Adair, 1985, 2009; Nutt, 2001; Mintzberg and Westley, 2001; Simon, 1977). Furthermore, the literature reinforces the significance of decision-making as an important managerial subject which is regarded highly on the management agenda (Mele, 2010, Mintzberg and Westley, 2001). However, Nutt (2011) contends that whilst there is extensive literature in the field there are also gaps in the decision-making research, such as, the link between process, context, content, costs and the benefits of a decision, all of which need to be explored in more depth. Nutt (2011) also argues that there are conflicting views as to the best process or method to adopt for effective decision-making at the strategic level.

A recent review conducted on strategic decision-making research identifies two main categories (Nutt, 2011): *'Content Research'* and '*Process Research'* (Elbanna and Child, 2007). According to Elbanna and Child (2007) '*Content Research'* deals with the *'wh*at' of strategic decision-making. This area of decision-making includes portfolio management, diversification, mergers and acquisitions, and the alignment of a firm's strategies with its internal and external environmental characteristics. '*Process Research'*, by contrast, deals with the '*how*' of strategic decision-making and is defined as *'the process through which a strategic decision is made and implemented*' (Pettigrew, 2003). It also involves the factors which affect the process. In essence, process research investigates a number of fundamental questions that are of interest to decision–makers at different levels, whether at an individual, departmental, organisational, regional or international level. Against this milieu, the present research examines the decision-making processes of African Leaders at the international level.

Views on the process of decision-making are also held by a number of other scholars who argue that the process of decision-making cannot be understood unless the context in which it

takes place is understood (De Wit and Meyer, 2005) and the formulation and implementation of the decision is studied (Pettigrew 2003).Therefore to understand the process of decision-making, studies are often undertaken using observations, interviews and surveys to explore the processes and procedures used (Nutt, 2011; Dean and Sharfman, 1996). The research design and methodology adopted for the study is discussed in depth in Chapter Four.

Mintzberg and Waters (1985) claim that the content and process research areas of decision-making are complementary to one another: Content research can pointedly influence the path of process research and vice versa. While the issues of content have tended to predominate the research literature over the last two decades, Rajagopalan et. al., (1997) contends that interest in process research has been growing.

Elbanna and Child (2007) maintain that decision-making processes can be explained by considering an array of factors. These factors include and relate to the external environment (environmental determinism perspective), the organisation's internal environment (i.e. the organisation's characteristics perspective), the characteristics of the members of the top management team (strategic choice perspective) and the decision-specific characteristics, also known as the decision perspective (Elbanna and Child, 2007). Decision-making process also examines the decision process outcomes, for example effectiveness, quality, commitment and the organisational outcomes (Nutt and Wilson, 2010).

This study takes the view that negotiation is an integral part of good decision-making processes. In today's complex and turbulent economic and political world, people are less prepared to accept decisions made for them - they want to be involved in decisions that have a direct bearing on their lives. Thus the terms decision-making process and negotiation are seemingly interrelated. The term 'negotiation' refers to *'a discussion intended to produce an agreement. This discussion may encompass parties whose needs being different, come to an interface where they achieve a common solution'* (Albin, 1993). This is clearly illustrated in this study where a group of different African leaders come together, negotiated, and stood their ground to defend their particular interests.

The various decision-making studies to date have offered many useful and insightful observations. Notwithstanding, an integration of these findings has been limited by the variation in conceptualisations (Nutt, 2010). From the researcher's point of view, the types of outcomes, content and context considered vary widely, in addition to the underlying theories, measures and techniques used to capture decision-making processes. More importantly, according to Nutt (2010) researchers conceptualise process very differently. Nutt (2010) contends that most research efforts identify some features of a process, or its motivation, but not how the decision was made.

Research undertaken by Dean and Sharfman (1996) classify a process by procedural features such as rationality based on the systematic collection and interpretation of information, political behaviour centred on power, influence and adaptability. Other researchers such as Hickson et. al.,. (1986) use process descriptors, for example, 'sporadic' including negotiations and time delays as a result of the negotiations, 'formalised' process or 'constricted'. Fredrickson (1985) on the other hand uses a classification based on the comprehensiveness of the process, to other researchers the process of decision-making is a coalition formation or social process of control and focusing on a decision makers attributes, such as, tolerance for ambiguity, uncertainty or risk aversion (Poole and Van de Ven, 2004). However one of the criticisms in the literature is that these studies do not explain how a decision is made (Nutt, 2010).

> *…We find a reluctance to deal with process. Much of the research reported here and elsewhere deals with generalisations about process, its political nature or rationality, but not action steps' (Nutt and Wilson, 2010: 646).*

However, according to Draft (2003), a number of decision-making models have emerged which endeavour to describe decisions and organisational decision-making processes. Furthermore, Poole and Van de Ven (2010) contend that to study decision-making processes, the researcher must be able to 'follow the action', i.e. the sequence of events or actions that lead to the decision from the beginning to the end. From the various activities, incidents, and occurrences observable during the decision, the researcher must identify what is significant and what patterns characterise the unfolding process (Poole and Van de Ven, 2010). The aim is to document the 'processes, i.e. the steps followed to make a decision (Bell et. al.,, 1998).

In essence, decision makers make decisions following a process made up of a series of steps and tactics to carry out each step (Nutt, 2002; 2008). Poole and Van de Ven (2010) stipulate that action-taking identifies the procedures followed by decision-makers to make a decision which differs from one researcher to another. For instance, some researchers draw on the philosophy of science to gain an insight on how decisions should be made leading to the formulation of processes by specifying procedures such as Simon, (1977); Daft, 1995; Nutt, 1989.

As with most processes involving human interaction, such as strategic decision-making, the negotiation process is critical to how succeeding stages will unfold (Wheeler, 2004). However, whilst strategic decision-making has emerged as one of the most active areas of current management research, and despite a substantial body of literature, it is still widely recognised that research in the area of strategic decision-making processes is limited (Papadakis, 1998, Nutt, 2011; Nutt and Wilson, 2010).

In conclusion, making good decisions involves some form of negotiating and bargaining. If negotiation is the process of two individuals or groups reaching joint agreement about differing

needs or ideas, then negotiation requires communication skills and good general knowledge. It can be argued that negotiation skills are essential components of decision-making.

This study therefore aims to explore how a group of African Leaders made a common decision in relation to the succession of the Kyoto Protocol in the international arena of the Fifteenth Session of the Conference of the Parties of the United Nations Climate Change Conference in Copenhagen, Denmark, popularly known as COP15 *utilising the Theory of Bounded Rationality* The decision outcome will also be discussed to fully grasp the decision-making processes based *on the theory of* '*Bounded Rationality'*. Therefore, a comprehensive description of the processes taken by a group of African leaders to make a common decision on the outcome of the succession of the Kyoto Protocol – The '*Copenhagen Accord'* at COP15 is presented.

The '*Rationality of decision-making'* processes occupy a central place in the debate on strategic decision-making (Nutt and Wilson, 2010; Elbanna, 2006; Miller et. al., 1996). However, according to some researchers, there is inconsistency amongst the results of earlier studies on strategic decision rationality and as such these scholars advocate the need for further research in strategic decision rationality (Nutt, 2010; Papadakis et. al., 1998; Dean and Sharfman, 1993; Kukalls, 1991; Fredickson, and Iaquinto, 1989).

As previously stated, Pettigrew (2003) points out that rationality in strategic decision processes cannot be well understood unless their context is implicit. This view proposes that the context in which strategic decision rationality takes place has a recognizable impact (Elbanna and Child, 2007). According to Elbanna and Child (2007) the term *'context'* refers to the characteristics of decision-makers, the decision-specific characteristics, features of the external environment and those of the organisation itself. Furthermore, Hough and White (2003) contend that any examination of strategic decision rationality that fails to consider these contextual factors is likely to provide an incomplete and conceivably an inaccurate picture. Notwithstanding, whilst there has been a tremendous increase in knowledge in the field of strategic decision-making, only relatively limited research has been conducted on the subject outside the USA and UK (Elbanna and Child, 2007). Moreover, the growing body of research on strategy practice in some emerging economies such as China, India and Latin America, has not been matched with other regions such as Africa and the Middle East (Hoskisson et. al.,, 2000; Wright et. al., 2005).

Whittington and Mayer (2000) argue that previous management research has not been '*culture free but culture blind'*; and therefore recommend that the '*time and place'* should be taken into account when investigating managerial practices such as strategic decision-making.

The conclusion that can be drawn from the above arguments is that they provide useful insights into the decision-making and decision-making processes. However, they have fallen

short of covering decision-making and its associated processes in the less developed and emerging nations. This point is elaborated in more depth in the literature review which is the focus of the chapter highlighting the original contribution this research also brings to the field.

In light of the above arguments, this research aims to contribute to the knowledge of the rationality of decision-making by a group of Africa Leaders in the context of the United Nations Framework Convention on Climate Change (UNFCCC) in relation to the succession of the Kyoto Protocol. The added value of this study is therefore to expand the literature in the field of decision-making, more specifically, the rationality of decision-making using the theory of *Bounded Rationality*. The research also focuses on the African Group, which differs from the main stream research work that has been undertaken in this area, further contributing to the body of knowledge.

1.3 THE RESEARCH PROBLEM

Negotiations about global issues involve numerous actors at different levels, specifically, politicians at national levels and professional negotiators at the international level (Gsottbauer and van den Bergh, 2012). COP15 under the UNFCCC is one such example. Negotiators implement specific negotiation strategies which are guided by national politicians, i.e. Ministers and other technical professional. In such settings interest groups and other key stakeholders are influential in these types of decision-making (Gsottbauer and van den Bergh, 2012). According to researchers such as Gsottbauer and van den Bergh, (2012 :2) '*each of these actors show bounded rationality and other preferences regarding behaviour'.*

At each level of climate negotiations and preparations, information is clarified and decisions are taken by a number of individuals, including civil servants, lobbyist, Ministers, technical experts, advisers etc. which often suggests that the outcomes of these negotiations are directly connected to behavioural features and choices. According to Gsottbauer and van den Bergh (2012: 2) '*the choices made are crucial for understanding both individual and group processes underlying climate negotiations, where groups may range from teams through regions to countries'*

For some African leaders, owing to a lack of experience, the 'Copenhagen Accord' at COP15 was a learning process, and identifying the issues and familiarising themselves with the negotiating style of others in order to reach a decision seemed overwhelming. The process of exchange and skills of persuasion were lacking in some meetings.

As previously stated, large organisations such as the UN and national governments are involved in climate negotiations. Researchers have long argued that Bounded Rationality is important in understanding decision-making processes in all kinds of organisations (Gsottbauer and van den Bergh, 2012; McFadden, 1999; Colinsk, 1996. Furthermore, Jones

(1999) contends that in complex environments, groups and individuals do not respond effectively. For instance, to date, international policy decision-making has been dominated by the economically stronger Annex I countries and the richer and better organised developing countries from the south. This has left most of the African countries with a weakened voice position and virtually voiceless in the negotiations and decision-making processes (Omenya, 2008). Repeatedly, the concerns of African countries, their policy issues and specific interests remain poorly articulated, vaguely defined and weakly represented in the UNFCCC (UN, 2010). This is due to the fact that firstly, African Leaders are divided and secondly, they are ill-prepared and unqualified. In situations where the specific positions of African Member States are clear, they are often defeated through stronger and better organised lobbying groups from the north (Omenya, 2009).

Whilst the African '*voice*' is frequently heard in regional and continental forums, such as the African Union, the Commission for Africa, Inter-ministerial conferences, i.e. the African Ministerial Committee on Environment (AMCEN) regional trading blocs, i.e. ECOWAS – the Economic Community of West African States and the New Economic Partnership for Africa's Development (NEPAD), most of these are limited to on- the-side presentation events within the UNFCCC, and seldom reach the negotiating table. Evidence has also shown that African Member States are often excluded in the key decision outcomes at these international meetings which is also corroborated by Omenya's findings (2009).

According to Omenya, (2009) there are a number of reasons contributing to this problem. These include:

i. African countries are only able to send small delegations to international meetings, events and conferences due to limited resources. These delegations are often poorly prepared and become mystified by the negotiations and decision-making process. In addition, these delegations are often not up to the task because they are further undermined and weakened by a lack of continuity and consistency internal to their nations.

ii. African countries suffer from uncoordinated and limited technical expertise on factual information required by policy makers and during the decision-making process. For example, information from research institutions in many African countries seldom reaches policy-makers, implementers and those preparing to attend international negotiations. Additionally, available data is often inaccurate and obsolete.

iii. The inadequate understanding of climate change policy internationally and its implications locally amongst policy makers and negotiating teams from Africa.

iv. The limited awareness of African Leaders and other members from the continent of how climate change policy decisions can be integrated into general development policies and programmes.

v. Weak institutional cultures, thereby limiting the extent to which African delegations share resources and information they require and acquire in these international negotiations and decision-making meetings.

vi. Prevalent issues, such as hunger, through to poverty and war, limit the extent to which national governments prioritise climate change and climate change policies despite the obvious vulnerabilities associated with this issue.

Inherently, Africa's position indecision-making in international policy continues to be inadequate, (AMCEN, 2010; Omenya, 2009; Gardiner, 2009)even though the continent is the most affected by the impacts of climate change and remains the most vulnerable (IPCC, 2007).In essence, African countries continue to be drowned in international negotiations having little impact on the final decision outcomes (UNDP, 2010). Nationally, in most African countries, non-existent, ineffective, poorly planned and integrated policies relating to climate change continue to hamper these nations' capabilities to deal with the impacts of climate change or negotiate and impact on decision-making in the most relevant policy options internationally (Omenya, 2009).

1.4 RATIONALE: THE RESEARCHER'S PERSPECTIVE

According to Blaikie (2010), the researcher's motive for undertaking research is associated with the type of research, i.e. whether it is '*basic research',* '*theory-oriented research'* or whether it is '*applied research'* or '*policy-oriented research'*. Applied research is concerned with producing knowledge for understanding, whilst policy-oriented research focuses on producing knowledge for action (Blaikie, 2010). From the researcher's perspective, both types of research are problem focused, basic research for theoretical problems and applied research for social or practical problems. However, based on the above classification, this research is '*applied research'* as applied research is concerned with practical outcomes. Applied research tries to address practical problems. It helps practitioners accomplish tasks, and aids the development and implementation of policy, where the results of the research are required immediately, unlike basic research which has a longer timeframe (Blaikie, 2010).

Intrinsically, the researcher's interest in this study stems from recent work as an international consultant working within the United Nations' systems for African governments. Working as an international consultant has given the researcher the opportunity to meet and work with leaders from around the world. More specifically, the researcher's role as the Special Technical Assistant: Strategy, Communications and Change for the Nigerian Minister of

Environment. This role introduced the researcher in more depth to the issues and challenges presented by decision-making in relation to climate change and the complexity of the decisions that need to be made at the national and international levels. The researcher therefore examines the problem of decision-making of African Leaders at an international level within the UN organisational system due the limited research undertaken in this field.

The complexity and challenges faced by nations in decision-making at an international level is also epitomised in the following extract from Hoste (2010) in relation to the succession of the Kyoto Protocol on which this research focuses:

> *…''A political commitment was reached in Copenhagen between five countries, namely the US, China, India, Brazil and South Africa. The rest of the world simply ''took note of it'', most with resignation, many with anger*' (Hoste, 2010:23).

Another aspect in relation to the research rationale is whilst the researcher's personal motives and goals for undertaking the research are important, the purpose of research is concerned with the type of knowledge a researcher wants to produce. In social research, this ranges from simple to complex, encompassing both basic and applied research and according to Blaikie (2010) is classified into the following categories: '*Explore, Describe, Explain, Understand, Predict, Change, Evaluate, and Access Impacts'* (Blaikie, 2010:26).

Using the above groupings, basic research focuses on the following five purposes: Explore, describe, explain, understand and predict and in particular describe, explain and predict. While applied research may include some of these basic purposes, it is mainly concerned with change, evaluation and impact assessment (Blaikie, 2010). Other researchers have classified the purposes of research into exploratory, descriptive, explanatory, and emancipatory (Marshall and Rossman, 2006) and exploratory, descriptive, explanatory, evaluation, action and social impact assessment (Neuman, 2007).

Exploratory research is conducted when very little is known about the topic being investigated or the context in which the research is to be conducted (Yin, 2009) and as such the research is exploratory in nature. The purpose of the research is to explore the process of how a common decision was made by a group of African Leaders in relation to the complex climate change negotiations on the decision relating to the succession to the Kyoto Protocol under the United Nations Framework Convention on Climate Change using the *Bounded Rationality* theory. The research also aims to answer the following sub-questions: *'How did Africa's decision-making strategy emerge in relation to COP15?' What was the outcome of the collective decision-making processes by African Leaders at COP15? 'What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?'*

Based on the above, this research is exploratory in nature with the aim of resulting in some form of change to address the problem. Rich descriptions of the decision-making processes of

African leaders are presented and recommendations put forward on how the decision-making processes of African leaders can be improved using the theory of Bounded Rationality.

Scientific evidence to date has revealed that climate change is an all-encompassing threat to the survival and sustainable development of humanity (Odey, 2009). For instance, climate change has resulted in increased adverse impacts on the environment, including food security, natural resources, human health, economic activities, physical infrastructures and sustainable livelihoods.

According to the IPCC, (2007) Africa remains one of the poorest regions in the world and is one of the regions forecast to be the most affected by climate change. Over the last decades, the impact of climate variability has demonstrated the region's vulnerability (IIed, 2006). Furthermore, according to Webster (2002), Manne and Richels (1995), Morgan and Keith (1995) and Nordhaus (1994), policy formulation for climate change poses a great challenge because it presents a problem of decision–making under uncertainty.

However, Penetrante (2012) contends that studies of the negotiation process in the context of climate change have been limited and that the dynamics and processes of climate change negotiations are difficult. These issues have been further recognised by the IPCC (2010). According to Penetrante (2012:280) '*an effective process-oriented analysis of climate change negotiations should involve identifying those factors that inhibit Member States from reaching mutually acceptable global agreements'.* A process approach would involve not only addressing the complexity of the substantial scientific and technical issues related to climate change (Adger et. al.,. 2003; Marland, 2006) but also the complexity of the negotiation process.

Often national governments fail to consider the full range of negotiation complexities in the preparations prior to events (Penetrante, 2012). For example, negotiations on emission reductions inevitably affect the decision on issues such as energy security (Penetrante, 2012). Another example is where policy makers are required to meet international standards in their negotiation behaviour but must also address issues emerging from domestic pressures, e.g. the role of nuclear energy to guarantee energy security. The complexities of the various negotiation and decision-making processes have been one of the features of climate change negotiation, which has further complicated setting agendas, increased the number of stakeholders and required the co-ordination of a large number of decision-makers (Penetrante, 2012: 281).

To illustrate, COP15 involved two years of pre-negotiation and negotiation processes by African leaders in conjunction with various parallel negotiations, such as the European Union (EU) summits which are discussed in more depth in Chapter Three. During COP15 the chair had a fixed plan that an agreement would be put in place before the end of the conference

which led to inflexibility in managing the decision-making process. For example, there were insufficient consultations with various countries considered to be outside the inner circle of leading nations around the world. This lead to the leaking of the Danish Text to several countries resulting in protests by several countries including members States of the Continent of Africa, as a result African nations walked out on 14th December 2012 (ENB, 2009; Vidal, 2009) delaying the conference by a day. Conflict resolution is a basic dimension of the climate change negotiations and decision-making process which aligns with notion of *'satisfying'* coined by Simon, (1977). Furthermore, decision-making under uncertainty often violates the full rationality assumptions (Gsottbauer and Van den Bergh, 2012). '*Bounded Rationality involves behavioural abnormalities in choice under risk and uncertainty, intertemporal choice and other inconsistencies in decision-making (Gsottbauer and Van den Bergh*, 2012:266).

Strategic decision-making relating to climate change is therefore extremely complex and needs to take into account the unique characteristics of the *'problem'*. These problems include large uncertainties, scientific and economic, possible non-linearities and irreversibilitie's of the resulting damage, the distorted distribution of the impacts geographically and temporally, the extended time horizons of the problem, and the global nature of climate change (IPCC, 2007). Whilst Africa is the region least responsible for climate change (IPPC, 2007), it is particularly the most vulnerable to the effects. The effects are numerous and comprise reduced agricultural production, worsening food security, increased incidences of flooding and drought, the continual spreading of diseases and the increased potential for internal conflict over scarce land and water resources (IPPC, 2007). It is therefore evident that support from development partners such as the United Nations, the World Bank, the Overseas Development Agency, the UK Department for International Development (DFID) and many others, is needed to help Africa cope with the effects of climate change. More precisely, actions on a broader range of issues are also necessary-by the wider international community, by multilateral and bilateral development agencies, and most importantly by African governments themselves. An example is the negotiation and decision-making processes of the UNFCCC. It is therefore crucial that Africa speaks with a strong and unified voice in international negotiations such as the UNFCCC and that Africa is heard to ensure that the decision outcomes help to build and address the many challenges faced by the continent.

1.5 RESEARCH AIM AND QUESTIONS

This research therefore aims to put forward theoretical and practical recommendations on how the decision-making process of African Leaders can be improved in international decision-making. The research explores how common decisions were made by a group of African Leaders from different countries on the global issue of climate change to reach a Common African Position adopting the Bounded Rationality Theory of decision-making. In the context of this research, the global issue examined is the decision-making processes and the outcome of the succession of the Kyoto Protocol under the UNFCCC by a group of African Leaders

through a qualitative analysis. The unique and historic case study of the Climate Change Conference – COP15 is explored in-depth addressing the questions as stated in Section 1.4 above.

Research questions constitute the most important element of the research design and need to be stated clearly and concisely (Saunders, 2009). Research questions can be classified into three main types: '*what', 'why'* and *'how'*. '*What*' questions seek descriptions, '*why'* questions seek explanations and '*how*' questions are concerned with interventions to bring about change (Blaikie, 2010). The central research question for this study is: -

i. *How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?*

In addition to the main research question, the following specific questions are explored: -

ii. How did Africa's decision-making strategy emerge in relation to COP15?
iii. What was the outcome of the collective decision-making processes by African Leaders at COP15?
iv. What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?

Case study dissertations should represent original research, be methodical, well-written, insightful, systematic and explicitly related to the literature of the field. Furthermore, the research should cover the focus in depth (Walliman, 2011). Theoretical issues may be political-theoretic, decision-theoretic, economic or market-theoretic, public policy or action-theoretic, to mention just a few of the possible dimensions of theory. In this way the criteria for acceptable case study dissertations do not differ from those for other types of dissertations (Walliman, 2011).

The relevant theoretical themes are discussed in greater detail in the literature relating to strategic decision-making, the theory of *Bounded Rationality* decision-making processes and climate change under the UNFCCC. Therefore, the theoretical underpinning of the research and its applicability to the unique and single case study of COP15 is substantiated in the ensuing chapters.

1.6 Scope of the Research

The research for this doctoral thesis was completed through a single and unique case study. The study was conducted in its natural setting and was a unique historic event which grabbed the world's attention by posing the question of how to address the issue of climate change based on the succession to the Kyoto Protocol. The scope of the research is the decision-making processes of the African Group as defined under the United Nations Framework Convention on Climate Change.

As stated earlier, the research was conducted during the Fifteenth Session of the Conference of the Parties of the United Nations Climate Change Conference usually referred to as COP15 in Copenhagen, Denmark in December 2009. The research was conducted from December 7th to December 20th2009.A pre-pilot was undertaken in Bangkok, Thailand in October 2009, with the pilot being conducted in Barcelona, Spain in November 2009.The pilot studies are discussed in more depth in Chapter Five.

COP15was hosted by the Government of Denmark and consisted of the following sessions:

I. Fifteenth session of the Conference of the Parties (COP15).
II. Fifth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP 5).
III. Thirty-first session of the Subsidiary Body for Implementation (SBI 31).
IV. Thirty-first session of the Subsidiary Body for Scientific and Technological Advice (SBSTA 31).
V. Tenth session of the Ad hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP 10).
VI. Eighth session of the Ad hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA 8).

The scope of this study was limited to the following two sessions:

I. Fifteenth session of the Conference of the Parties (COP15).
II. Fifth session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 5).

The research was limited to the first two sessions as these were the key sessions which discussed the succession to the Kyoto Protocol. Furthermore, due to the sheer size of the Conference, it would be beyond the scope of this study to cover all the sessions. Moreover, covering all the sessions would make the scope of the research too wide for the purposes of the doctorate. The overarching cost and budgetary implications were also a further contributing factor in limiting the scope of the research. All the African Group sessions and meetings relating to the Kyoto Protocol were attended by the researcher. The method by which the research was conducted is discussed in more depth in Chapter Six.

COP15 was an exceptional world-wide event that attracted unprecedented participants and resulted in:

- Attendance *by 120 Heads of State and Government, raising climate discussions to a new level.*
- *Record numbers of participants including 10,500 delegates, 13,500 observers, and coverage by more than 3,000 media representatives.*

- *Intensive negotiations characterized by over 1,000 officials, informal and group meetings among Parties. Observers discussed climate change in more than 400 meetings and media attended over 300 press conferences.*
- *A vibrant programme of over 200 side events.*
- *Over 220 exhibits from Parties, UN, IGOs and civil society.*
- *A total of 23 decisions adopted by the COP and the CMP'* (UN, 2010:4).

1.7 DEFINITION OF TERMINOLOGIES

Definitions adopted and terms frequently used in this research are set out in this section on key terminologies. This is in order to confirm their intended interpretation by the researcher, and include: decision-making, group decision-making, the United Nations Framework Convention on Climate Change (UNFCCC), African Leaders, the African Group in the context of the UNFCCC, including Annex l countries, Climate Change and the Kyoto Protocol. It is important to define the various terms used in order that the holistic contents of this thesis will be understood from a common standpoint.

1.7.1 DECISION-MAKING

Decision-making is a process of making a choice from a number of alternatives to achieve a desired result' (Eisenfuhr, 2011:2). Decision-making in the context of this research is defined as '*a moment in an on-going process of evaluating alternatives for meeting an objective'* (Harrison 1999:59).

1.7.2 DECISION-MAKING PROCESS

A decision-making process is a sequence of steps, phases or routes by which a decision is made (Papadakis, et. al., 1998) and is applicable to this research.

1.7.3 GROUP DECISION-MAKING

Many authors define group decision-making as two or more interacting and interdependent individuals who come together to solve a problem (Lewis et. al., (2001), Lee et. al., (1999); Robbins et. al., (1998); Shapira (1997); Stoner et. al., (1994); Bartol et. al., (1997)). In the context of this research, group decision-making is defined as '*sharing the process of decision-making with relevant peers or subordinates in a group discussion'* (Nutt and Wilson, 2010:581).

1.7.4 CLIMATE CHANGE

Climate change refers to a '*change in the state of the climate that can be identified by changes in the mean and/or variability of its properties and that persists for an extended period, typically decades or longer'* (IPCC, 2007:327).

Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. The Framework Convention on Climate Change, i.e. the UNFCCC, in its Article I, defines climate change as: '*a change in the climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods'*. The UNFCC thus makes a distinction between climate change attributed to human activities altering the atmospheric composition, and climate variability attributable to natural causes (IPCC, 2007). For the purpose of this research, the UNFCCC's definition has been adopted.

1.7.5 THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty produced at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro in 1992. The treaty was aimed at reducing emissions of greenhouse gases, pursuant to its supporters' belief in the global warming hypothesis. The ultimate objective of the UNFCCC was '*the stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*' (UNFCCC 1993, Article 2).

The treaty, as originally framed, set no mandatory limits in greenhouse gas emissions for individual nations and it contained no enforcement provisions; it is therefore considered legally non-binding. Rather, the treaty included provisions for updates (called 'protocols') that would set mandatory emission limits. The principal update is the Kyoto Protocol, which has become much better known than the UNFCCC itself. Signatories to the UNFCCC are split into three groups: -

- Annex I countries (*Industrialised countries*). The Annex l Parties are: The 40 countries plus the European Economic Community listed in Annex l of the UNFCCC that agreed to try to limit their GHG emissions namely: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, European Economic Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, The Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and United States.

- Annex II countries (developed countries which pay for the costs of developing countries).
- Developing countries (These are countries not included in any of the classifications above).

Annex I countries agree to reduce their emissions (particularly carbon dioxide) to target levels below their 1990 emissions levels. If they cannot do so, they must buy emission credits or invest in conservation initiatives. Carbon dioxide (CO_2) is a colourless, odourless, non-poisonous gas that is a normal part of the ambient air. Of the six greenhouse gases normally targeted, CO_2 contributes the most to human-induced global warming. Human activities such as fossil fuel combustion and deforestation have increased atmospheric concentrations of CO_2 by approximately 30 per cent since the industrial revolution.CO_2 is the standard used to determine the "global warming potentials" (GWPs) of other gases. CO_2 has been assigned a 100-year GWP OF 1 (i.e., the warming effects over a 100-year time frame relative to other greenhouse gases).

However, developing countries have immediate restrictions under the UNFCCC. This serves three purposes:

i. Avoids restrictions on growth because pollution is strongly linked to industrial growth, and developing economies can potentially grow very fast.
ii. It means that they cannot sell emission credits to industrialised nations to permit those to over-pollute.
iii. They receive money and technologies from the developed countries in Annex I. Developing countries may become classified as Annex I countries when they are sufficiently developed (UN, 2010).

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). The IPCC is responsible for providing the scientific and technical foundation for the UNFCCC primarily through the publication of periodic assessment reports. For the purpose of the research, the latest, i.e. the Forth Assessment Report of the IPCC was used.

1.7.6 THE KYOTO PROTOCOL

The Kyoto Protocol is an international agreement linked to the UNFCCC. The main feature of the Kyoto Protocol is that it sets binding targets for 37 industrialised countries and the European Community for reducing greenhouse gas (GHG) emissions. This amounts to an average of five per cent against 1990 levels over the five-year period 2008-2012 (UN, 2010).

The major distinction between the Kyoto Protocol and the UNFCCC is that whilst the UNFCCC encouraged industrialised countries to stabilize GHG emissions, the Kyoto Protocol commits them. Recognising that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of '*common but differentiated responsibilities'* (UNFCCC, 2009).

1.7.7 THE CONFERENCE OF THE PARTIES (COP) UNDER THE UNFCCC

The '*Supreme Body'* of the Convention is the highest decision-making authority under the UNFCCC. It is an association of all the countries that are Parties to the Convention (UNFCCC, 2009).

1.7.8 THE MEETING OF THE PARTIES (MOP) UNDER THE UNFCCC

The '*Conference of the Parties'* serves as the '*Meeting of the Parties'* to the Kyoto Protocol (MOP). The MOP meets during the same period as the COP. Parties to the Convention that are not Parties to the Protocol are able to participate in the MOP as observers, but without the right to make decisions. The functions of the MOP relating to the Protocol are similar to those carried out by the COP for the Convention (UNFCCC, 2009).For the purpose of this research, COP15 is the term used for the Conference of the Parties Fifteen, and MOP5 for the Meeting of the Parties both held in Copenhagen, Denmark in December 2009.

1.7.9 THE AWG-KP

The Ad-Hoc Working Group on further commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) was created at the United Nations Climate Change Conference in 2005, Parties to the Kyoto Protocol which initiated a process to consider further commitments by Annex I Parties for the period beyond 2012. The resulting decision established an open-ended Ad hoc working group of Parties to the Kyoto Protocol to conduct that process and report to each session of the CMP on the status of this process (UNFCCC, 2009).

1.7.10 PLENARY MEETING OF THE CONFERENCE OF THE PARTIES

At Plenary Meetings, each delegation is represented and all delegations sit in a single large room. State representatives can have an opportunity to address the Convention. All votes take place in the Plenary Meeting (Mace et. al., 2006).

1.7.11 AFRICAN LEADERS

African Leaders in the context of this thesis are defined '*as those individuals who have a significant leadership role within their country and are also assigned to address the issue of climate change under the UNFCCC*'. In essence, these individuals are Heads of State,

Ministers, Permanent Secretaries, Directors or other senior management individuals within the Member States. The African Leaders are the countries' lead negotiators and senior members of the delegation.

1.7.12 The African Group in the Context of the UNFCCC

The African Group under the UNFCCC consists of the 53 Member States in the continent of Africa. This list is attached as Appendix 1 and the map of Africa as Appendix 2. The African Group addresses various common concerns, including the lack of resources, vulnerability to extreme weather conditions, finance, capacity building and technology transfer. The Group is divided into three levels:

i. Heads of State
ii. Ministerial
iii. Technical

During COP15 Nigeria co-chaired the African Group with the Republic of Congo.

The African Group is also part of the G77 and China comprising 130 members. The G77 and China form a diverse group of developing countries with differing interests on climate change issues. Even within the African Group there is a diversity of interests. For example, Algeria and Nigeria are both members of OPEC, and South Africa is a relatively advanced country while the Least Developed Countries (LDCs) in the G77 all fall within the African Group. The African Group also has linguistic diversity, with a number of Anglophone and Francophone countries (Mace et. al., 2006).

1.8 Structure of the Thesis

The following section gives a description of the structure of the thesis. The thesis consists of nine chapters as follows: -

Chapter One – Looking through the Research Lens

This chapter presents the research topic, formulates the research problem and outlines the rationale from the researcher's perspective, the literature and anecdotal evidence. Key terminologies used within the research are expounded and defined. The chapter also delineates the scope of the research and concludes with an overview of the structure of the thesis including an overarching summary of this opening chapter and an introduction to the literature review which is deliberated in Chapter Two.

Chapter Two – Theoretical Perspectives of Decision-making – A Literature Review

This chapter critically reviews the literature. The relevant literature around decision-making theory to develop an appropriate theoretical framework is analysed. More specifically, the concept of strategic decision-making is discussed; the various theories are presented which leads to Bounded Rationality as a Theory of decision-making. The theoretical arguments presented lead to the identified gap in the literature which in turn leads to the main research question. The research aims to address the following question: *'How do a group of African Leaders make a common decision on the succession of the Kyoto* Protocol *using the theory of Bounded Rationality?* The research question is explored in the context of the United Nations Framework Convention on Climate Change with further supplementary questions, exploring '*How did Africa's decision-making strategy emerge in relation to COP15?'What was the outcome of the collective decision-making processes by African leaders?'* and '*What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?*' The literature on climate change decision-making is also introduced in the context of the UNFCC which forms the main focus of Chapter Three. The theoretical underpinnings, the research problem leading to the research questions are summarised to conclude this key chapter.

Chapter Three – Decision-making and Climate Change in the United Nations

This chapter provides an in-depth discussion on the literature relating to climate change as an international issue which sets the context of the research under the umbrella of the UNFCCC. The problem of climate change as an important international issue is presented. The complexities as to what to do to address climate change, i.e. how, when and by whom (Dow and Downing, 2007) is also discussed. An introduction to the decision-making processes within the UN system, and the decision-making processes as they relate to climate change, in addition to Africa as a region, is also presented. The literature review then proceeds to define the relationships and interconnections between the different research fields to further emphasise the gap in the literature leading to the research questions. The chapter culminates in a summary of the topics considered.

Chapter Four – Research Design and Methodology

This chapter discusses the research design and methodology adopted for the study in more depth, more specifically: the research paradigm, justification for the qualitative approach, the research design and the choice of the case study, the research instrument questions for the semi-structured interviews and focus groups, the data collection methods, the approach taken to analyse the data and the relevant ethical considerations. In essence, the chapter articulates the empirical process for the research including an overview of the organisational theory presenting the epistemological and ontological perspectives and the researcher's justification

for the research paradigm. The methods adopted for safeguarding the integrity of the data collected due to the limitation of the case study methodology are also discussed.

Chapter Five – A Preliminary Investigation: Exploring the Case

Chapter Five discusses the preliminary investigation of the study referred to as the '*pre-pilot'* and the '*pilot'* conducted prior to the main research. The pre-pilot was undertaken in Bangkok, Thailand at the United Nations Climate Change Convention meeting in October 2009, whilst the pilot was conducted in Barcelona, Spain in November 2009 prior to the main conference in Copenhagen in December 2009.

The purposes of the pre-pilot and pilot are explained as are the decision-making processes of the African Group. The pilots were also used to test the procedures and specifically the interview questions; the focus group interview guide including the audio recording equipment and the process followed to achieve this are also discussed. The role of participants in providing feedback on the various data collection techniques and instruments used is also discussed, including the general findings emerging from the pilots. The chapter concludes with an overarching summary and an introduction to the main study, COP15.

Chapter Six – The Unique Case – The Climate Change Conference in Copenhagen

This chapter presents the main research and discusses the process in more depth. It describes the setting of COP15, how the main study was conducted, the uniqueness of this case study, the selection criteria of the participants, the interview and focus group questions and what the questions in the semi-structured interviews and focus groups aimed to address in relation to the main research questions. The semi-structured interviews, the researcher's observations at various plenary sessions and the African Group and African Ministerial Committee on the Environment (AMCEN) meetings including the Committee of African Heads of State and Government on Climate Change (CAHOSGCC) are also presented. The chapter discusses the focus group interviews and the collection of other secondary sources of data. It also discusses the limitations of the data collection methods and how these were addressed. The chapter concludes with a brief summary.

Chapter Seven – Data Analysis and Research Findings

This chapter analyses the data and discusses the research findings. The chapter concludes with a brief summary and leads into the introduction of the succeeding discussion chapter.

Chapter Eight – Discussion

Chapter Eight analyses and interprets the research findings emanating from the main study in more depth, addressing the research questions. The chapter concludes with an introduction to the next chapter which brings the research to a conclusion.

Chapter Nine – Conclusion and Recommendations

This chapter culminates in the conclusion of the research and puts forward recommendations by drawing the various elements and components of the literature and research together. The research moves on to discuss the contributions of the thesis and puts forward suggestions for further research. The reflective journey of the researcher is also presented, ending in an overarching summary.

1. 9 SUMMARY OF CHAPTER ONE

This introductory chapter provided an overview of the thesis. The chapter commenced with the background to the research before highlighting the research problem, the research aim, objectives and the research questions to be addressed in the study. The justification for the research from the researcher's perspective is also given in this introductory chapter, various definitions of the terminologies used were cited and the scope also delineated. The chapter concludes with the overarching structure of the thesis.

The following chapter reviews the pertinent literature in relation to strategic decision-making culminating in the identification of the research gap, which is further extended in Chapter Three in the context of the UNFCCC.

CHAPTER TWO THEORETICAL PERSPECTIVES OF DECISION-MAKING - A LITERATURE REVIEW

2.1 INTRODUCTION

This chapter introduces the key literature areas for the research. Decision-making is considered to be the parent discipline of the research. The concept of decision-making, more specifically strategic decision-making from an organisational perspective is discussed. This is followed by a critique of literature on strategic decision-making. The literature review is based on an amalgamation of the comprehensive reviews of the works on strategic decision-making by scholars such as Harrison and Phillips (1991), Eisenhardt and Zbaracki (1992), Meindel et. al., (1996); Papadakis and Barwise (1998) and more recently Nutt and Wilson (2010). The literature and arguments for the descriptive model of strategic decision-making are presented, and the choice of the *Bounded Rationality Theory* is discussed in depth. The different levels of decision-making including a brief look at the literature on the concept of group decision-making are discussed as the research explores the decision-making process of a group of African Leaders in the context of the succession to the Kyoto Protocol under the United Nations Framework Convention on Climate Change.

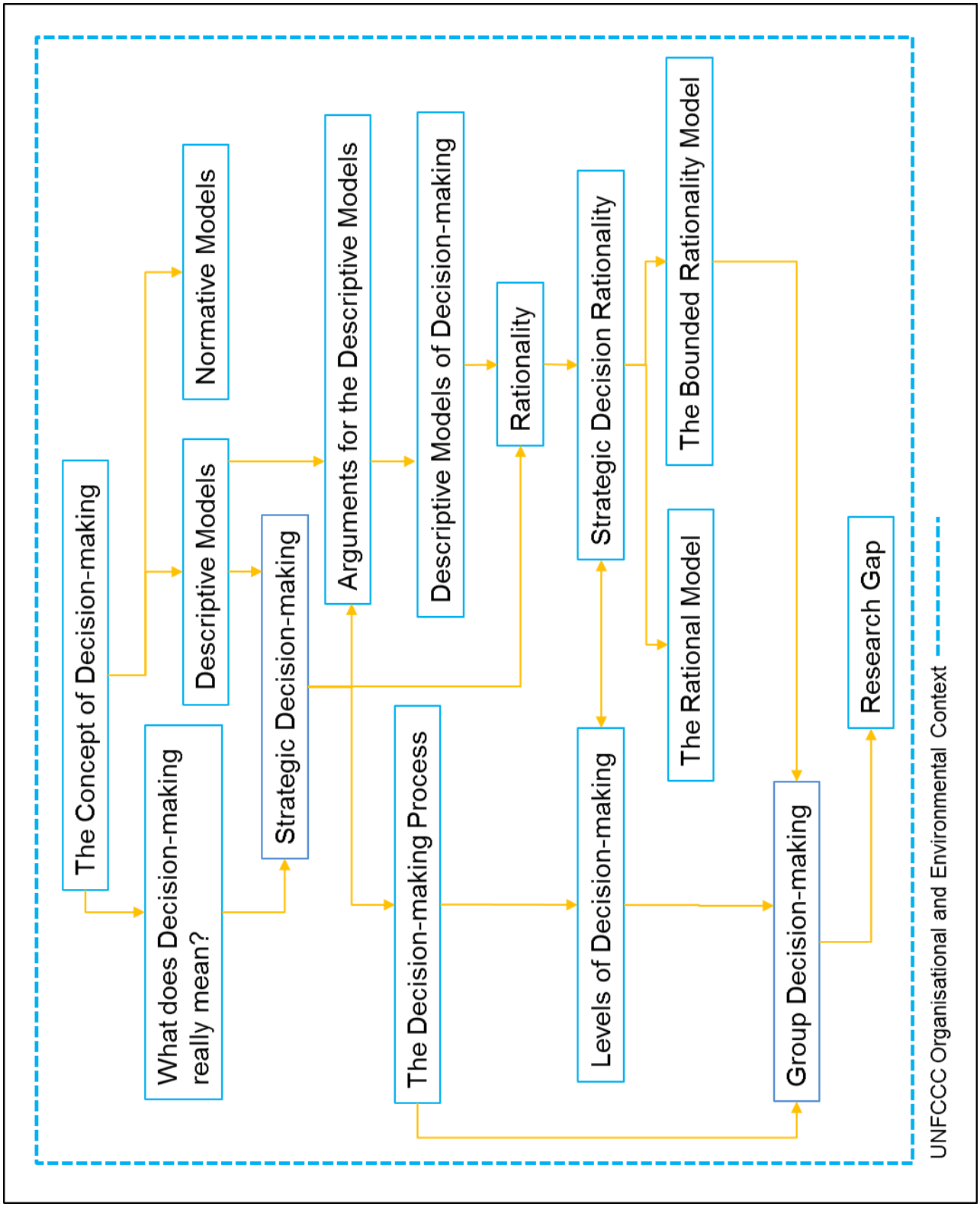
The research problem, critique of the literature on strategic decision-making and the emergent research issues culminate in the identification of the research gap leading to the questions the study intends to address.

The decision-making processes within the UN system as it relates to the Framework Convention on Climate Change are discussed in depth in the subsequent chapter. More specifically, strategic decision-making as it relates to Climate Change Policy decisions in the context of the United Nations in its primary role as an international organisation for addressing a wide range of global issues, such as climate change, is then examined. The various research areas are brought together to further highlight the gaps in the literature.

Whilst this review is extensive, the justification is given based on the breadth of the body of literature and the complexity of the nature of the research.

The structure of the literature review is illustrated in Figure 1 below.

FIGURE 1 STRUCTURE OF THE LITERATURE REVIEW



Source: Compiled by the Researcher

2.2 The Concept of Decision-making

The study of decision-making is not new. Decision-making has traversed a number of levels of analysis, from individual human cognition to the cultural characteristics of nation states, and as an area of research has a significant historical trajectory with many distinguished contributions (Nutt, 2011).

The term strategic decision-making is frequently used to signify important or key decisions made at the helm of organisations of all types. In the context of this research, the UN is the organisation in question. The UN as an organisation includes a collection of social, economic and political activities involving a plurality of human effort (Wilson, 2007) and is discussed in more depth in relation to the research phenomenon in the following chapter.

World leaders are required to make strategic decisions amongst alternative choices. The decisions that are required to be made are often uncertain choices. Furthermore, these choices are required to benefit both the organisation to which they relate and key influential stakeholders (Nutt and Wilson, 2010). As a result, according to Nutt and Wilson (2010):

> …*''this has prompted researchers to study decision processes to find ways in which decisions can be improved' (Nutt and Wilson, 2010:3).*

Additionally:-

> …''*strategic decisions are seen as large, expensive, and precedent setting producing ambiguity about how they find a solution and uncertainty in the solutions' outcomes'* (Nutt and Wilson, 2010:4).

Researchers contend that strategic decisions have the following general characteristics: -

- *Elusive problems that are difficult to define precisely.*
- *Require an understanding of the problem to find a viable solution.*
- *Rarely have one best solution, but often a series of possible solutions.*
- *Solution benefits are difficult to assess as to their effectiveness, in part because they lack a clear and final end point against which effectiveness can be judged.*
- *High levels of ambiguity and uncertainty are associated with the solutions.*
- *Realising hoped-for benefits has considerable risks.*
- *Strategic decisions have competing interests that prompt key players to use political pressure to ensure that a choice aligns with their preferences*' (Nutt and Wilson, 2010:4).

Researchers contend that strategic decision-making is frequently treated as an instantaneous choice between two or more known alternatives (Nutt, 2011). However, this approach is unable to capture the richness and complexity of the processes that are involved in making these decisions (Nutt and Wilson, 2010). Intrinsically, decision-making studies often undertake

observations, interviews and surveys to find out about the processes or procedures that are used in practice (Nutt and Wilson, 2010; Nutt et. al., 1984; Dean and Sharfman, 1996). Nonetheless, researchers have argued that whilst decision-making research has offered extensive investigations, structuring techniques, prescriptions and analytical tools, few scholars have integrated this body of knowledge into sound theory. Furthermore, the literature suggests that research has yet to develop a coherent description of the process of decision-making and therefore, there is need for research that informs practice to enhance the decision-making processes of leaders and managers to enable decisions and their outcomes to be successful (Nutt, 2011).

The research contributes to this field of literature by exploring the decision-making processes of African Leaders in relation to the succession of the Kyoto Protocol within the Framework Convention on Climate Change with the United Nations organisation.

Since the 1950s, theories relating to the art of decision-making have been an active area of research in several fields such as management, economics, statistics, psychology, and engineering. For example, *decision theory* is an area of discrete mathematics that models human decision-making. As a result, decision theory has become a useful tool to many professionals, such as, in the social sciences and management arenas. Furthermore, because decisions are made at all levels of an organisation, it is not surprising that it has continued to attract the attention of leaders, management academics, social science researchers and consultants (Huczynski and Buchanan, 2007).

Two common tenets of decision theory are '*normative'* or '*prescriptive'* and '*positive'* or '*descriptive'*. *Normative Decision Theory is* concerned with identifying the best decision to make, in other words what decisions '*should' we* make, whilst '*Descriptive Decision Theory'* describes '*how*' decisions are made, that is, '*what people actually do'*, and as such, allows for further tests of the kind of decision-making that occurs in practice.

This research addresses how a group of African Leaders make decisions on climate change adopting the '*descriptive*' approach to decision-making based on the theory of *Bounded Rationality*. The model is used to examine the decision-making processes of African Leaders in an international setting, i.e. within the United Nations organisational system, more specifically, the Framework Convention on Climate Change. Research to date has revealed that due to the poor decision-making of African nations in relation to climate change, this has had an immense detrimental impact on these nations (Onyema, 2010).

According to Mallard (2012) the term '*Rationality'* refers to the ability of individuals to make optimal decisions based on information available to them. The information may be currently available, in the past or future. On the other hand, *Global Rationality*, also known as *Objective Rationality* on relates to an individual's ability to identify and absorb all the relevant information present to address the challenge faced, processing it to ensure that the given objective

function is maximised (Mallard, 2012). The concept of 'Bounded Rationality' stems from the Theory of Rationality, as a contrary argument to the theory (Mallard, 2012). *Bounded Rationality* is used to designate rational choice taking into account the cognitive limitations of the decision-maker in terms of the knowledge of the problem and the individuals' computational capacity (Simon, 1997).

The concept of *Bounded Rationality* is accredited to Herbert Simon (1957). A crucial premise of the theory argued by Simon (1957) is that:

> …'*the capacity of the human mind for formulating and solving complex problems is very small compared to the size of the problems whose solutions is required for objectively rational behaviour in the real world – or even for a reasonable approximation to such objective rationality'* (Simon, 1957:197).

According to Simon (1957), the notion of decision-making is contrasted with the more classical notion of decision-making used in economics. Economics uses a model of behaviour where behaviour is explained by individuals maximising their utility based on fixed preferences that are only influenced by price and income (Gsottbauer and van den Bergh, 2012). In essence, economists assume that decision-makers are rational in all circumstances (Ibrahim, 2009). However, behavioural economics offers an alternative elucidation based on recognising *Bounded Rationality* and limited self-interest. Simon (1957) contends that while individuals gather, analyse and retrieve information from memory, their ability to make meaningful inferences is limited due to a number of inherent factors. These factors include the complexity of the external environment, the limited mental capabilities of individuals in comparison with the demands of the environment, and resource constraints in terms of time and budgets. As such, decisions are made under conditions of extreme uncertainty and these decisions are made only in an '*intendedly'* rational manner.

According to Mallard (2012), the incorporation of *Bounded Rationality* into the field of economic analysis has produced:

> *… 'a more realistic and powerful behavioural assumption into economic theory'* (Mallard, 2012:674).

Notwithstanding, Mallard (2012) also suggests the need to explore how '*Bounded Rationality'* can be used in different contexts and how it can be used in the literature to model group or intra-organisation decision-making is important as this presents a gap in the literature. Other researchers such as Nutt, (2011); Nutt and Wilson, (2010); Brown et. al., (2009) and Basov (2005) support this view. The research therefore uses *Bounded Rationality* to explore the decision-making processes of African Leaders in the context of the UNFCCC. This is further defensible as argued by Simon (1997); Jones, (1999) that *Bounded Rationality* can be used to study the processes involved in decision-making and, as such, can be applied in

circumstances dealing with extreme uncertainty, such as climate change which does not assume the knowledge of probabilities (Simon, 1997).

A good understanding of decision-making is essential to explain how decisions are made and the processes involved in decision-making (Mallard, 2012). The degree of rationality in decision-making has been widely recognised as one of the key dimensions of strategic decision-making and has been the subject of copious theoretical and empirical investigations within the literature (Dean and Sharfman, 1993; Eisenhardt and Zbaracki, 1992; Elbana, 2006; Wilson, 2003; Nutt and Wilson, 2010; Nutt, 2011).

However, to date, researchers have revealed that there have been radical changes to how strategic decision-making has been researched (Nutt, 2011). For instance, according to Nutt (2011), in the 1950s and 1960s a planning approach to decision-making was accentuated based on portfolio matrices. Yet, in the 1970's, decision-making focused on payoffs to organisations based on alternative strategic options being adopted. These options included diversification, acquisition, joint ventures and internationalisation decisions. The following decade, more specifically the 1980s, involved the move from the content of strategic decisions to the processes involved in decision-making. In this era, researchers attempted to explore the stages of a strategic decision and make inferences about the processes as to why and how they occur (Hickson et. al., 1986).

Notwithstanding, from the 1990s to date, interest has been growing amongst researchers in unfolding the characteristics of decision-making processes and, more recently, on the relationship between decision-making and decision outcomes (Nutt and Wilson, 2010). For example, in terms of outcomes, the curiosity now is in exploring whether the decision succeeded or failed (Nutt, 1999, 2002; Hickson et. al., 2003).This recent trend is also validated by Jarzabkowski and Wilson (2006) who assert that:

> …''*much of the traditional strategic decision-making theory has been criticised because it is not actionable in practice' (*Jarzabkowski and Wilson, 2006:46).

Another important aspect of strategic decision-making in the literature is the '*situation'* of the decision (Jarzabkowski, 2005). This forms an important part of the understanding of decision-making. The term *'situation'* or '*situated'* identifies the relational nature of the actors with the '*situations*' being the *'context'* in which they operate. In other words, the action by a leader or manager must be seen and understood in the context of the situation in which the action occurs (Nutt and Wilson, 2010).Researchers have argued that context influences choices, the benefits realised and the processes applied in decision-making (Nutt, 1998;Bell et. al., 1998).

These arguments are again applicable in the current research in exploring the decision-making processes of African Leaders using the theory of *Bounded Rationality* in the contextual situation of the United Nations Climate Change Conference negotiations in relation to the

succession of the Kyoto Protocol in Copenhagen, Denmark in 2009. The exploration of the decision-making processes enabled a better understanding of how decisions were made in relation to the outcome, i.e. the *Copenhagen Accord*. The outcome of COP15 is discussed in more depth in subsequent chapters.

Additionally, researchers in strategic decision-making have long argued and re-iterated that the current focus of strategic decision-making research should centre on the following themes, aspects of which are applicable in this study:

- Increasing the focus of outcomes in order to increase managerial relevance.
- Explaining the influence of the broader context on strategic decision-making processes and outcomes; for example the organisation, the specifics of the decision, planning systems, national culture, and corporate governance.
- Integrated research to bridge the gap between strategy process and strategy content.
- The inclusion of CEOs and top management teams in strategic decision-making research.
- In-depth research on strategic decision-making as it relates to learning, implementation and Information Systems (Papadakis et. al., 2010).

The above arguments are supported by the use of the '*Bounded Rationality Theory* as it allows for the:

> …''*detailed and systematic empirical study of human decision-making'* at the strategic or lower levels in '*real world situations....and it is concerned with capturing the actual process of a decision as well as the substance of the final outcome'* (Simon, 1997:293).

Furthermore, national culture is another key area that researchers have argued for in research in strategic decision-making. For instance, according to Nutt (2011) the majority of research on strategic decision-making comes from the USA. Yet, in an era of increased globalisation, it is important managerially as well as scientifically to investigate how closely the various concepts, theories and results apply to strategic decision-making in other nations (Nutt, 2011).

Numerous articles were reviewed in the relevant fields relating to the research, and the extensive relevant studies identified and comprehensively reviewed by the researcher on strategic decision-making are shown in Table 1 below. The articles were drawn from the years 1998 to the current date and reflect the various studies appearing in the strategic decision-making literature; however, only one study on strategic decision-making is based in Africa. This study investigates 169 strategic decisions of Egyptian manufacturing firms employing more than 100 employees. The research was undertaken using a cross-sectional field study using both qualitative and quantitative methods. The study concludes that rationality is shaped by decisions relating to environmental and firm characteristics (Elbanna and Child, 2007).

According to researchers, strategic decisions are intentionally made and implemented resulting in strategic action of one form or another (Ericson, 2010). Conversely, when engaged in complex and contentious situations, leaders tend to address conflicting decisions through an array of political tactics, i.e. alliances, the use of experts, limiting the availability of information, etc. to build allies and/or a strong power base in order to pursue their particular decision of interest (Eisenhardt and Bourgeois, 1988; Pettigrew, 1992).In these situations, the leader controlling the information has the power to exert influence on the decision-making-process (Ericson, 2010). Similarly, *Bounded Rationality* can involve behavioural inconsistencies when leaders are faced with choices under risk and uncertainty, inter-temporal choice and other unpredictable actions in decision-making.

Furthermore, some researchers argue that an individual can be rational when faced with the influences of power and/or politics in decision-making; however in a group of individuals made of these same individuals this is not usually the case (Pfeffer, 1992). Pfeffer (1992) argues that, in these situations, emphasis is on resolving conflict and using tactics such as coalitions, information control and influence to arrive at a decision (Pettigrew, 1973).

Moreover, research emerging from decision theory, behavioural decision theory, behavioural organisational theory, survey research and experimental economics has revealed the failure of rational choice as a descriptive model (Jones, 1999). However, *Bounded Rationality* asserts that decision-makers

> ...''*are intentionally rational but due to human cognition and emotions they occasionally fail in important decisions'* (Jones, 1999:297).

This failure in decision-making can be attributed to two factors: procedural limits, i.e. '*how a decision is made'* and substantive limits which refer to the *'particular choice made* 'in essence, the outcome of the decision (Jones, 1999).

The implications in terms of the study are that generally one can argue that rational responses characterise decision-making, but at important points rationality fails, and as a consequence there is a discrepancy between the decision-making environment and the choices of the decision-maker. This mismatch is referred to as '*Bounded Rationality showing through'* (Simon, 1997).

Limited research has been undertaken in observing *Bounded Rationality* and Environmental Policy research (Gsottbauer and van den Bergh, 2011). Research that has been undertaken has been from an environmental perspective, rather than from a strategic management standpoint.

Today, the most important area of environmental policy making is climate change, more specifically the reduction of greenhouse gases, mitigation and adaptation (Gsottbauer and van den Bergh, 2011). According to Gsottbauer and van den Bergh (2011) most proposals for climate change policy rest on the assumption of rational behaviour in strategic decision-making.

Furthermore, whilst this research does not argue from the *'usual'* mathematical or economic stance associated with decision theory, *Bounded Rationality* can be used to study the processes involved in decision-making (Simon, 1997). Simon (1997) also contends that:

> *..."whilst we should select appropriate research techniques for addressing different problems, disciplinary parochialism should be avoided' (*Simon, 1997:303).

TABLE 1 REVIEW OF THE KEY STUDIES IN THE SDM LITERATURE

No	Author(s)	Date(s)	Sample	Design / Sources of Information	Analyses	Linkage(s)	Main Findings
1.	Brenes et. al., (2008)	2008	81 firms operating in Latin America.	Survey research, cross-sectional.	Descriptive Statistics	4, 3, 6	Strategic formulation process, CEO leadership, systematic execution, and strategy control and follow-up influence the successful implementation of business strategy.
2.	Elbanna and Younies (2008)	2008	As that of Elbanna and Child (2007a).	As that of Elbanna and Child (2007a).	PCA	12	Decision-makers can be simultaneously rational, political, and / or intuitive.
3.	Miller (2008)	2008	79 US firms from various industries.	Survey research, cross-sectional, multiple respondents' performance is measured with archival data.	Multiple Regression	5B, 2B	In non-turbulent environments comprehensiveness and performance exhibit an inverted U-shaped relationship, while in turbulent environments there is a positive relationship that is concave downward based on diminishing effects.
4.	Nutt (2008)	2008	202 strategic decisions in US and Canadian firms.	Field study, longitudinal, multi-method, multiple respondents.	ANOVA, MANOVA	5A, 7A	Controlling for context and content (based on the type of decision), discovery processes lead to more successful strategic decisions than idea imposition, redevelopment, and emergent opportunity processes.
5.	Nooraie (2008)	2008	44 firms operating in Malaysia.	Survey research, cross-sectional.	Hierarchical Regression	5A, 1A	Rationality mediates the relationship between decision magnitude of impact and decision satisfaction. There is a positive relationship between decision magnitude of impact and decision rationality.
6.	Walter et. al., (2008)	2008	106 strategic alliances from high-technology US firms.	Survey research, cross-sectional.	CFA for scales and Multiple Regression	5A, 2A, 7A	The relationship between alliance performance and processes (rationality, openness, recursiveness) is moderated by micro political context.

No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
7.	Elbanna and Child (2007a)	2007a	169 strategic decisions from Egyptian manufacturing firms, employing more than 100 employees.	Field study, cross-sectional, utilises both qualitative and quantitative approaches.	Hierarchical Regression and PCA	1A	Rationality is shaped by decision, environmental and firm characteristics.
8.	Elbanna and Child (2007b)	2007b	As that of Elbanna and Child (2007a).	Field study, cross-sectional, utilises both qualitative and quantitative approaches.	Hierarchical Regression and correlations	5A, 2A, 7A	Rationality and political behaviour influence strategic decision effectiveness more than intuition. This relationship is shaped by decision, environmental and firm characteristics variables.
9.	Martinsons and Davison (2007)	2007	133 Americans, 82 Japanese and 88 Chinese top managers.	Multi-method (questionnaires and interviews), cross-sectional.	Pairwise t-test.	1B	Executives from the three countries have distinct decision-making styles.
10.	Mueller et. al., (2007)	2007	42 undiversified US manufacturing firms.	Survey research, cross-sectional, multiple respondents.	Hierarchical Regression	5B, 2B, 7B	The elements of rationality are related to firm performance (ROA). Environmental dynamism moderates this relationship.
11.	Nutt (2007)	2007	As that of Nutt (2000a).	Field study, longitudinal, multi-method, multiple respondents.	ANOVA	5A	Performance Gapping and Premising influence the search approach that managers use to uncover alternatives.
12.	Olson et. al., (2007)	2007	252 Chinese managers.	Survey research, multiple TMT responses.	Hierarchical Regression	2A, 5A	Cognitive diversity has a positive relationship with decision commitment and quality. This relationship is moderated by effect-based and cognition-based trust.
13.	Olson et. al., (2007)	2007	85 Top Management Teams from US hospitals.	Survey research.	CFA and SEM	2A, 5A	Cognitive diversity has a positive relationship with task conflict. Task conflict mediates the relationship between cognitive diversity and decision outcomes.

No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
14.	Papadakis (2006)	2006	107 strategic decisions from 59 manufacturing firms operating in Greece.	Field study, cross-sectional, multiple sources.	Hierarchical Regression	1A	Broader context is more influential than the characteristics of the CEO. CEO's demographic characteristics appear to influence some process characteristics, while personality characteristics exert no influence.
15.	Carr (2005)	2005	28 UK, 35 German, 14 US and 13 Japanese vehicle component firms.	Interviews, longitudinal.	Content Analysis	1B	Institutional and cultural factors have a profound effect on the style of decision-making.
16.	Forbes (2005)	2005	98 Internet start-up firms from the '*Silicon Alley'* Community.	Field study, cross-sectional.	T-tests and OLS Regression	2A, 5A	Firms managed by older and experienced managers make faster strategic decisions.
17.	Goll and Rasheed (2005)	2005	159 manufacturing firms operating in the USA.	Rational decision-making was measured based on a survey, while all the other variables are archival, multiple TMT responses.	Multiple Regression	1B, 2B, 5B, 7B	Top Management Team demographic characteristics (age, tenure) influence the degree of rational decision-making. Environmental munificence moderates the relationship between rational decision-making and firm performance.
18.	Hough and Ogilvie (2005)	2005	749 Executives.	Simulation	SEM	5A, 7A	Cognitive style influences decision outcomes.
19.	Nutt (2005)	2005	As that of Nutt (2000a).	As that of Nutt (2000a).	ANOVA, MANOVA	5A	A rational, goal-oriented search is more apt to produce more successful outcomes.
20.	Atuahene Gima and Li (2004)	2004	373 Chinese firms involved in technological ventures.	Survey research, cross-sectional, multiple TMT responses.	CFA and Hierarchical Regression	5A, 2A, 7A	The relationship between strategic decision comprehensiveness and new product performance was negatively moderated by technology uncertainty but positively moderated by demand uncertainty.

No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
21.	Atuahene Gima and Murray (2004)	2004	149 US manufacturing firms.	Survey research.	CFA and Hierarchical Regression	1A, 5A, 2A, 7A	Marketing strategy comprehensiveness is influenced by organisational and environmental factors. The relationship between marketing strategy comprehensiveness and product performance is positively moderated by implementation speed and technology uncertainty and negatively by market uncertainty.
22.	Collier et. al., (2004)	2004	6394 managers attending an executive course in a UK university.	Survey research, cross-sectional.	Correlations	4, 6	There is a positive relationship between involvement in strategy-making and rationality and a negative one between involvement and politics.
23.	Miller et. al., (2004)	2004	As that of Hickson et. al., (2003).	As that of Hickson et. al., (2003).	PCA and Correlations	2A, 4, 6	Managerial experience and organisational context (structure, culture) influence the successful implementation of strategic decisions.
24.	Sadler-Smith (2004)	2004	141 firms operating in the UK.	Survey research, cross-sectional, performance is measured with archival data.	Correlations, Hierarchical Regression	5B, 2B, 7B	Intuition is positively related to firm performance. Environmental instability does not moderate this relationship.
25.	Walters and Bhuian (2004)	2004	89 acute-care hospitals operating in the USA.	Survey research, cross-sectional, objective and subjective measures of performance.	SEM	10,11,2B, 5B, 7B	Environmental dynamism positively moderates the relationship between comprehensiveness and performance and hybrid strategy and performance.

No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
26.	Baum and Wally (2003)	2003	318 CEOs of US firms.	Survey research, cross-sectional, multiple respondents, subjective measures of performance.	SEM	2A, 9,2B	Strategic decision speed is influenced by a multiplicity of organisational and environmental factors and moderates the relationship between dynamism, munificence centralisation, formalisation, and firm performance.
27.	Hickson et. al., (2003)	2003	55 UK firms.	Case study design, longitudinal.	PCA and Multiple Regression	2A, 4, 6	Planned and prioritised options influence the success of strategic decisions.
28.	Hough and White (2003)	2003	400 decisions.	Simulation.	ANOVA, correlations and logistics Regression	5A, 2A, 7A	Environmental dynamism moderates the relationship between rational decision-making and decision quality.
29.	Papadakis and Barwise (2002)	2002	As that of Papadakis et. al., (1998).	As that of Papadakis et. al., (1998).	Hierarchical Regression	1A	TMT and CEO influence the strategic decision-making processes, but the former has more influence.
30.	Covin et. al., (2001)	2001	96 manufacturing firms in South-western Pennsylvania.	Field study, cross-sectional, multiple sources, performance is measured with archival data.	Multiple Regression	5B, 2B, 7B	The relationship between decision-making style and organisational performance is moderated by environmental and technological sophistication.
31.	Brouthers et. al., (2000)	2000	42 Dutch financial institutions.	Field study, cross-sectional, survey research.	Multiple Regression	1B	Strategic aggressiveness is shaped by environmental and management factors.

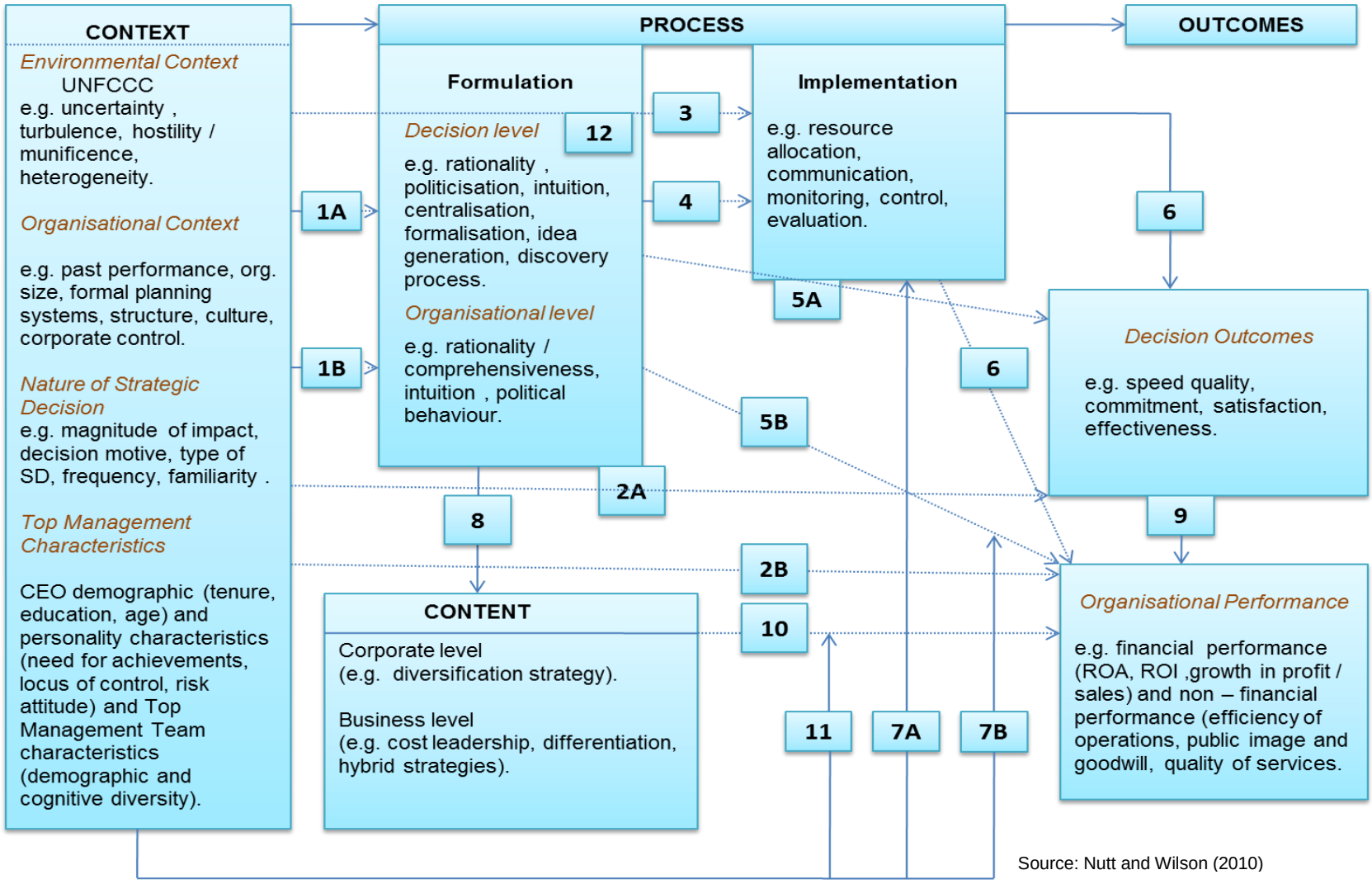
No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
32.	Khatri and Ng (2000)	2000	221 US companies drawn from three sectors (computers, banks and utilities).	Survey research, cross-sectional and subjective measure of performance.	ANOVA and Regression Analyses	5B, 2B, 7B	A positive relationship exists between intuition and firm performance in an unstable environment and a negative in a stable one.
33.	Nutt (2000a)	2000a	376 strategic decisions in US and Canadian firms.	Field study, longitudinal, multi-method, multiple respondents.	ANOVA, Duncan Test	1A	Public, private and third sector organisations follow different tactics to uncover alternatives.
34.	Nutt (2000b)	2000b	As that of Nutt (1998b).	As that of Nutt (1998b).	Multiple Regression and Duncan Test	5A, 2A	Decision-makers use nine tactics (e.g. bargaining, judgment, analysis) to uncover alternatives.
35.	Gottschalk (1999)	1999	190 Norwegian firms.	Survey research, cross-sectional.	Multiple Regression	4	There is a positive relationship between planning and implementation.
36.	Papadakis et. al., (1999)	1999	A Greek chemical firm.	Qualitative longitudinal.	Content Analysis	1A	The categorisation of an issue (i.e. crisis, opportunity) influences the processes followed.
37.	Simons et. al., (1999)	1999	57 Top Management Teams from 57 electronic components manufacturing US firms.	Survey research, multiple TMT responses.	Hierarchical Regression	5B	Comprehensiveness mediates the interactive effects of diversity and debate on firm performance.
38.	Brouthers et. al., (1998)	1998	90 Dutch firms.	Survey research, Cross-sectional.	Descriptive Statistics	1B	Executives of small firms tend to rely more on intuition.

No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
39.	Chou and Dyson (1998)	1998	80 strategic investment decisions from Taiwanese firms.	Survey research, cross-sectional.	PCA and Correlations	2A, 1A	IT intensity in the investment project is negatively related to the effectiveness of SDs and to several process characteristics (duration, interaction, involvement).
40.	Goll and Sambharya (1998)	1998	92 large US manufacturing firms.	Survey research, cross-sectional, performance is measured with archival data.	Multiple Regression	5B, 8	Diversification strategy acts as a mediator in the relationship between rational decision-making and firm performance.
41.	Kim and Mauborgne (1998)	1998	Interviews with 48 senior executives from 8 firms (Round 1).	Qualitative design.	Content Analysis	4, 5A	A sense of procedural justice among the team enhances the right execution of strategic decisions.
42.	Miller et. al., (1998)	1998	Study1: 38 CEOs of USA firms operating in various industries. Study 2: 108 CEOs from hospitals in Texas. Study 3: TMT responses for 71 companies in various industries in the USA.	Survey research, cross-sectional.	Multiple Regression	1B, 5B	Comprehensiveness and extensiveness of strategic planning are negatively related to Top Management Team cognitive diversity. Firm performance is positively related to both comprehensiveness and strategic planning. Also, an indirect relationship exists between executive diversity and firm performance.
43.	Nutt (1998a)	1998a	376 strategic decisions in US and Canadian firms.	Field study, longitudinal, multi-method, multiple respondents.	Duncan Test, Chi-square	6	Four distinct implementation approaches (i.e. intervention, participation, persuasion, and edict). The first two seem to lead to more successful decisions than the last two.

No	Author(s)	Dates	Sample	Design/ Sources of Information	Analyses	Linkage(s)	Main Findings
44.	Nutt (1998b)	1998b	317 strategic decisions in US and Canadian firms.	Field study, longitudinal, multi-method, multiple respondents.	ANOVA, Duncan Test	5A	Political tactics, although rarely used are quite effective. Judgmental tactics (intuitive) have the poorest success record. Analytical tactics are most widely used and successful in most of the cases.
45.	Papadakis et. al., (1998)	1998	70 strategic decisions form 38 manufacturing firms operating in Greece.	Field study, cross-sectional, multiple sources.	Multiple Regression and PCA	1A	Decision processes are shaped by multiple factors, though decision-specific characteristics have the most important influence.
46.	Papadakis et. al., (1998)	1998	As that of Papadakis et. al., (1998).	As that of Papadakis et. al., (1998), both objective and subjective measures of performance.	Correlations	1A	Long-term performance is related more to 'structural' characteristics of SD processes (rationality, financial reporting) while short-term performance is related to more 'behavioral' characteristics of SDs.

Source: Nutt and Wilson (2010)

FIGURE 2 LINKAGES BETWEEN THE LITERATURE AREAS IN STRATEGIC DECISION-MAKING



Source: Nutt and Wilson (2010)

The explanation of the various linkages in relation to the various studies identified in Table 1 and shown in Figure 2 is given below:

Linkage 1A: Context influences on the process of making strategic decisions (decision level).
Linkage 1B: Context influences on the process of making strategic decisions (organisational level).
Linkage 2A: Context influences on the success of strategic decisions (decision level).
Linkage 2B: Context influences on organisational performance (organisational level).
Linkage 3: Context influences on implementation.
Linkage 4: The relationship between formulation and implementation.
Linkage 5A: Process influences on the success of strategic decisions (decision level).
Linkage 5B: Process influences on organisational performance (organisational level).
Linkage 6: Implementation influences on outcomes (organisational and decision level).
Linkage 7A*:* Moderating effects of context variables on the relationship between process and decision success.
Linkage 7B: Moderating effects of context variables on the relationship between process and organisational performance.
Linkage 8: The relationship between process and content.
Linkage 9: The relationship between decision process outcomes and organisational performance.
Linkage 10: Content influences on organisational performance.
Linkage 11: Moderating effects of context variables on the relationship between content and outcomes (organisational and decision level)
Linkage 12: The relationship between the characteristics of the strategy process.

(Nutt and Wilson, 2010:46)

Figure 2 illustrates the linkages between the different research areas in the strategic decision-making literature. As afore mentioned, the literature in strategic decision-making has been separated into two distinct categories: 'content research' and 'process research' (Elbana, 2006). Content research typically deals with the '*what*' and process deals with the '*how*' (Nutt and Wilson, 2010). However, this approach has been questioned by various researchers, who contend that future researchers need to explore the relationship between not just process and content (Elbanna, 2006) but also the context and the outcomes also need to be taken into consideration. The linkages between these areas and the various studies shown in Table 1 are therefore illustrated above.

2.3 WHAT DOES DECISION-MAKING REALLY MEAN?

As discussed in Section 2.2, decision-making has a long history involving a diverse number of perspectives, philosophical positions and prescriptions. Over the years there have been various debates about the possibilities and practices of effective strategic decision-making, the

significance of strategic decision-making for other aspects of organisational functioning, the links with power in organisational settings and whether the concept has any real efficacy (Miller et. al., 2006). To this extent, the term decision-making is first defined followed by strategic decision-making. Decision-making has been defined in numerous ways, the most common definition being:

> ...''*is to make a judgement of what an individual should do in a certain situation after deliberating on some alternative course of action*' (Ofstad, 1961:5).

Likewise, Stoner et. al., (1994) defines decision-making as:

> *…''the process by which a course of action is selected as the solution to a specific problem'* (Stoner et. al.,1994:132).

Furthermore, Adair (1999) defines decision-making as deciding what action to take, usually involving a choice between different alternatives, while Mele (2010) contends that decision-making is a process in which a problem is defined and the decision-maker structures one or more objectives to solve the problem. Other researchers consider decision-making and problem-solving as activities that are in synergy with one another, an argument that is not held by all researchers. For instance, Lang et. al., (1978) argue that whilst some researchers view problem-solving as a broad process that includes decision-making, others accept that problem-solving is an element of decision-making.

The researcher maintains that decision-making may be part of the decision-making problem-solving process up to the stage of implementation. This is because no decision needs to be made but there are significant steps in assessing whether the decision and outcome of the decision is effective.

There is no doubt that decision-making is an important topic, especially in today's turbulent environment. According to Adair (1994) the '*actual moment'* of a decision cannot be studied, therefore the process of decision-making is what needs to be understood. Adair (1994) further postulates that the outcome of a decision in terms of its success or failure is dependent on both the decision itself and the effective implementation of the decision.

Other researchers such as Kania (2008), argue that good decision-making needs data collection, analysis, action planning, implementation and evaluation, concluding that a good decision will not adhere to just one approach but considers several methods. This view is also held by Hoy and Tarter (2010) stating:

> *…''there is no best way to make decisions, in fact, a large part of the art of successful decision-making rests with the notion of matching the correct model of decision-making with the appropriate situation'* (Hoy and Tarter, 2010:351).

For the purpose of the research, a decision is defined as *'a moment in an on-going process of evaluating alternatives for meeting an objective' (Harrison, 1999:59). 'A decision-making*

process is defined as a sequence of steps, phases or routes by which a decision is made ' (Papadakis et.al., 1998). However, In this case, the process taken to make a decision on the succession of the Kyoto Protocol by African leaders, expectations about a particular course of action impel the decision-maker(s) to select that course of action most likely to result in meeting the objective' (Harrison, 1999). Decision-making, on the other hand, is defined as '*the process of making choices from amongst several options or alternatives* (Huczynski and Buchanan, 2007).

Strategic decision-making, however, are those decisions that are made at the helm of the organisation and have a wide impact both internally and externally (Child et. al., 2010 cited in Nutt and Wilson, 2010). In the case of the research, as previously stated, this is the United Nations organisation.

2.3.1 Arguments for the Descriptive Models of Decision-making

Decision-making is a multifactor, multi-dimensional process that often requires the processing of information. As research has evolved, the difference between descriptive and normative theories has become blurred (Dillion, 2007). Earlier researchers, Luce and von Winterfeldt (1994) postulate that the gap between *'descriptive'* decision-making – what we are observed to do - and '*normative'* decision-making - what we should do - is extensive and has widened in recent years.

Normative theories have been advanced so that they better 'describe' decision-making, e.g. Prospect Theory (Kahneman and Tversky, 1979). Similarly, descriptive theories have sought to introduce normative axioms; examples include the Advantage Model (Shafir et. al., 1993). However, it is important that the difference between the descriptive and normative models remains distinct (Dillon, 2007). From a practitioner's perspective the distinction serves as a useful reference point when endeavouring to improve managerial decision-making (Dillion, 2007). More recently, a third classifier has been presented which better describes models such as the Advantage Model and the Prospect Theory, known as the '*Prescriptive Model'.*

The *Prescriptive Model* is one which decision-makers can use and is used to address both the specific situation and needs of the decision-maker. According to Dillon (2007), prescriptive models are based on both strong theoretical foundations of normative theory in combination with the observation of descriptive theory. The differences between the models of decision-making are highlighted in Figure 3 below

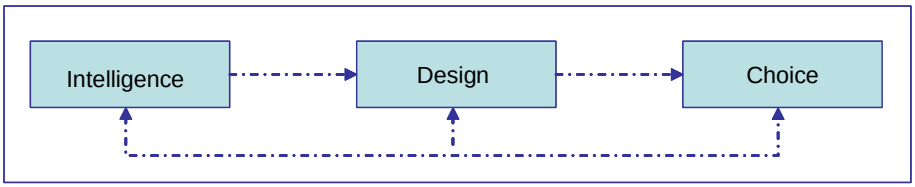
FIGURE 3 BASIC MODELS OF DECISION-MAKING

Descriptive: What people ***actually*** do, or have done
Prescriptive: What people ***should*** do and ***can*** do
Normative: What people ***should*** do (in theory)

Source: Dillon (2007)

Simon (1977) proposed a three-phase trichotomy of decision processes namely, '*Intelligence'*, '*Design '*and '*Choice'* as illustrated in Figure 4 below.

FIGURE 4 SIMON'S MODEL OF DECISION-MAKING



Source: Simon, H. A (1977)

Intelligence involves identifying the need for a decision. Once the need for a decision has been identified, the design phase commences which involves '*investigating and developing the problem domain and potential alternatives'* (Simon, 1977:243). According to Simon (1977), the final stage in the decision-making process is choice, which describes the activity of selecting the most appropriate course of action from the alternatives previously generated.

Huber (1980) distinguishes decision-making from '*choice making'* and '*problem solving'*. Huber (1980) argues that '*choice making'* refers to the narrow set of activities involved in choosing one option set from another set of alternatives. Choice making is one part of decision-making, while '*problem solving'* refers to the broad set of activities involved in finding and implementing a course of action to correct an unsatisfactory situation (Huber, 1980). Decision-making incorporates both these components and a decision process can therefore be defined as:

> *…''a set of action and dynamic factors that begins with the identification of a stimulus for actions and ends with a specific commitment to action'* (Mintzberg et. al., 1976:251).

Plunkett and Hale (1982) stress that decision-making is not an art but a process, the most important part of the process is the identification of worthwhile actions to undertake (Nutt, 1983). As such, Nutt (1983, 2011) therefore defines a decision process as:

> *…''a made upstream of action taking steps that begins with claims by stakeholders drawn from signals that seem important and end with a decision being adopted'* (Nutt, 1983:14).

Due to the complex nature of decision-making, various studies have attempted to explain the decision-making process. Examples include Simon (1977), stating:

…'decision-making comprises four principal phases which are: finding the occasion for making a decision; finding possible courses of action; choosing among those courses of action and evaluating past choices' Simon (1977 cited by Knapp and Zupancic, 2007:527).

> …''decision-making comprises four principal phases which are: finding the occasion for making a decision; finding possible courses of action; choosing among those courses of action and evaluating past choices''

The section below attempts to simplify the numerous processes involved in decision-making. No single analysis manages to incorporate all possible variables of decision-making. An alternative method researchers have taken to examine decision-making is to deconstruct the process into separate stages.

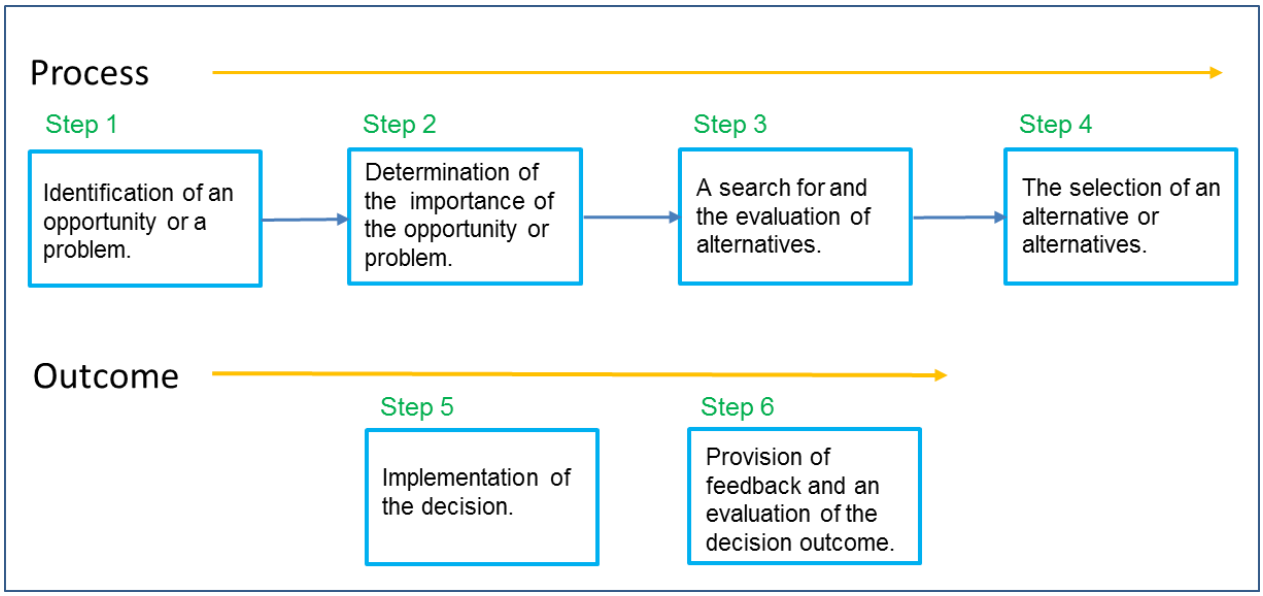
2.3.2 THE DECISION-MAKING PROCESS

'*Decision-making* is a process of making a choice from a number of alternatives to achieve a desired result' (Eisenfuhr, 2011:2). Notably, leaders make a variety of decisions each day. These decisions can affect a limited number of individuals within an organisation or a wide range of people across a continent or a number of continents. These decisions can be present from a few seconds to a few days or in the future, from a few weeks to many years. Furthermore, in the context of organisations such as the UN, a group of members consisting of representative countries, referred to as Member States, makes organisational decisions which impact the world, rather than individuals. On such basis, decision-making can be described as a social process whose outcomes are usually dispersed amongst an array of organisational members (Chen et. al., 1996; Gioffre et. al., 1992; Offermand and Gowing, 1991; Sniezek and Henry 1990).

Figure 5 below illustrates the stages of decision-making which includes both process and outcome. Lawson and Shen (1998) point out that organisational decision-making usually arises within turbulent, cacophonous or high velocity environments in which change is ever present. The numerous challenges faced by leaders worldwide due to the impacts of climate change are a point in question. World leaders and governments have to make decisions to adjust and invest in policies, programmes, projects and other initiatives that reduce CO_2emissions to reduce the impact of climate change. The decision-making process within the UN is discussed in more depth in Chapter Three.

Decision-making usually commences with the identification of an opportunity also known as '*anticipatory decision-making'* or a problem i.e. '*reactive decision-making'*. The challenges posed by climate change are reactive despite an aspect of anticipatory decision-making in terms of making decisions to lessen the impact of climate change. To date, some of the impacts of climate change are being mitigated by implementing various 'green initiatives' i.e. tree planting and other environmentally-friendly programmes, such as the Clean Development Mechanism (CDM) – a carbon trading scheme between rich and poor nations.

FIGURE 5 THE DECISION-MAKING PROCESS



Source: Compiled by the Researcher from the works of Stoner, et. al.,.(1994)

Generally, the more closely the decision-making group is to the real time data (Lawson and Shen, 1998) the more likely they are to identify opportunities (such as technology transfer, new markets, organisational processes) rather than focus on problems defined by historical or forecasted data sets. Thereafter the decision-making group needs to determine if the focal situation is an important opportunity or problem that requires attention and action. This is an interesting fact, as the study revealed some African Leaders maximising the opportunities presented by COP15.

Using the decision-making diagram above, Stages 3 and 4 can be completed quickly or slowly depending on the decision-maker's level of tolerance for risk. In considering different alternatives for climate change, decision-makers are now focusing on implementation issues, so there is a clear linkage between the process and outcome components (UN, 2010). Furthermore, the time the Kyoto Protocol will lapse for the negotiation of a second commitment period is at the end of 2012.

In Stages 5 and 6 there is a shift to what may be called the '*right-to-the-left*' thinking in that the goal or anticipated outcome of the decision is now clearly stated and attention is given to plans of action that outline what specific actions need to be undertaken. This right-to-the-left thinking increases the anticipation of the barriers and the development of strategies to deal with them. Once a decision is implemented, it is important to monitor the outcome measures such as improved quality, reduced environmental impact, reduced costs, shorter delivery timescales, environmental programme performance, etc. (Nutt and Wilson, 2010). The outcome measures need to be determined and undertaken carefully including an appropriate feedback loop. However, Lawson and Shen (1998) argue that without systematic feedback it is impossible to determine the overall effectiveness of the decision-making process.

Furthermore, leaders often have to vary their approach to decision-making depending on the particular *'situation'* in question (Stoner et. al., 1994). Simon (1977) assumes that decisions can be classified as either programmed or non-programmed.

Lawson and Shen (1998) ascertain that programmed decisions usually involve highly repetitive and routine problems in which the procedures for decision-making are well established, applied frequently, easily triggered and require immediate action. Similarly, Simon (1977) suggests that in programmed decision-making, the focus is on the implementation of the decision, with the first steps highly standardised as represented in operating manuals and standard operating procedures.

Nutt and Wilson (2010) also suggest that programmed decisions are made in routine, well-structured situations using predetermined decision rules. The decision may be based on habit, statistical techniques or established policies and procedures that stem from prior experience or technical knowledge about what works in the particular situation. The UN as an organisation consists of programmed decisions with pre-determined decision rules and procedures.

In contrast, non-programmed decisions are used when predetermined decision rules are impractical, as in novel or ill-structured situations (Bass 1983). Most significant strategic decisions are non-programmed and involve significant uncertainty (Bartol et. al., 1998; Lawson and Shen 1998; Robbins et. al., 2000; Stoner et. al., 1994). Decisions made under these conditions involve risk (Bartol et. al., 1998; Lawson and Shen, 1998; Robbins et. al., 2000; Stoner et. al., 1994) and the possibility of a chosen action leading to losses rather than the intended results. Climate change comprises uncertainty and risk, which adds to the complexity of the problem in relation to decision-making.

Bromiley and Rau (2010) suggested that uncertainty stems from a variety of sources. For example, elements in the environment that are difficult to predict or control can affect the success of a decision, and cost and time constraints can limit information collection as revealed by the study. Bartol et. al., (1998) also point out that social and political organisational factors, such as poor inter-unit communication, makes relevant information gathering difficult in such situations. Moreover, rapid situational changes render information quickly obsolete.

Furthermore, according to researchers, the proportion of non-programmed decisions that a leader makes increases at each hierarchical level (Bartol et. al., 1998). Since these decisions require effective decision-making skills and creativity, they provide the biggest challenge to leaders. Larrick (1993) points out that preferences for risk or certainty arises not only from the perceived value of outcomes and their probability but more importantly because the outcomes will enhance or erode one's self-esteem and efficacy as a decision-maker.

In general, most leaders believe that they reason clearly, exercise sound judgement and make decisions rationally and logically. However, many researchers have identified a number of

fallacies and systemic errors that leaders tend to commit when thinking and making decisions (Nutt and Wilson, 2010).

For example, leaders are influenced by whether a choice is framed in terms of gains or losses. Similarly leaders often take risks because they do not necessarily assume that they will have to suffer the consequences of a 'risky' decision (Bromiley and Rau, 2010). Thus a leader's choice is often unduly tilted in the direction of what they want or what they want to believe.

Moreover, when making decisions, leaders tend to over-estimate how many other people agree with their beliefs and attitudes (Bromiley and Rau, 2010).

2.3.2 MODELS OF DECISION-MAKING

The interdisciplinary aspects of decision-making are best illustrated within the framework of models. These models illustrate how much emphasis applicable disciplines receive in the strategic decision-making literature. Moreover, models can represent a particular segment of the real world when placed under varying conditions (Nutt and Wilson, 2010).

Rice and Bishoprick (1971) defined models as follows:

> *…''Models can be mathematical, social or philosophical. They can involve physical phenomena, emotional phenomena or in fact anything capable of theoretical analysis. Because they are used in theoretical analysis there have been many different models developed to explain the same or similar phenomena. Each theoretical discipline, in examining an occurrence, must develop its own model to explain it.'*(Rice and Bishoprick,1971:47).

Researchers have argued that there are four types of decision-making models (Kania, 2008; Browne, 1993; Harrison, 1987). These models are:

- Rationality or Rational Choice Model
- Bureaucratic / Organisational Model
- Political Model
- Process Models.

A summary of these models is given in Table 2 below.

Section 2.2 discussed the main tenets of strategic decision-making theory – i.e. '*Descriptive', 'Prescriptive'* and *'Normative'* which is also depicted in Table 2. The researcher's choice and arguments for the descriptive model of decision-making is based on the fact that descriptive models describe the process of what leaders and managers actually do in decision-making (Dillon, 2007). As previously stated, the theory of *Bounded Rationality* is '*concerned with capturing the actual process of a decision as well as the substance of the final outcome'* (Simon, 1997:293).

The section below gives an overview of the various descriptive models concluding with the justification for the theory of *Bounded Rationality.* Other models were not considered suitable for the phenomenon under investigation due to the limited research undertaken within the body of literature.

TABLE 2 INTERDISCIPLINARY MODELS OF DECISON-MAKING

Model	Decision-making criterion	Key aspects	Associated assumptions
Rational Model (Classical) *Descriptive*	Maximised outcome	Objectives: specific states of nature; subjective probabilities; quantified utilities; exhaustive alternatives; computational decision-making strategy, short term horizon; highest structured process.	Fixed objectives, unlimited information, no cognitive limitations, no time and cost constraints, quantifiable and controlled variables, closed systems; quantitatively limited outcomes.
Organisational (Neoclassical) *Normative*	Satisfying outcome	Objectives: General states of nature, limited subjective probabilities; partially quantified utilities; non-exhaustive alternatives; sensitive environment; judgemental decision-making strategy: short-term horizon; moderately structured process.	Attainable objectives: limited information; cognitive limitations; time and cost constraints; partially quantifiable and intransitive alternatives; open system; qualitatively and moderately quantitatively limited.
Political (Adaptive) *Prescriptive*	Acceptable outcome	Objectives: General states of nature; no probabilities; unquantifiable utilities; non-exhaustive alternatives; dominant environment; compromise or bargaining decision-making strategy; restricted number of outcomes; short term horizon; incremental steps; loosely structured process.	Limited objective: unlimited information; no cognitive limitations; no time and cost constraints; non-quantifiable and generally transitive alternative; open system; environmentally-limited. Outcomes; no ‘right’ decision.

Model	Decision-making criteria	Key aspects	Associated assumptions
Process (Managerial) *Normative*	Objective oriented outcome	Objectives: general states of nature; generally subjective probabilities, objective-oriented utilities; exhaustive alternatives; sensitive to environment constraints; judgemental decision-making strategy with selective use of computation and compromise; long-term horizon; limited number of outcomes; highly structured process.	Highly dynamic objective: limited information; time and cost constraints generally non-quantifiable and intransitive alternatives; open system; sequential decision-making functions; objective-oriented outcomes.

Source: Adapted from Harrison, (1993)

2.3.3 DESCRIPTIVE MODELS OF DECISION-MAKING

Descriptive decision-making models vary by the extent to which they make trade-offs among attributes (Payne et. al., 1993). According to Schoemaker (1980:22), '*a model is deemed Non-Compensatory if 'surpluses' on subsequent dimensions cannot compensate for deficiencies uncovered at an early stage of the evaluation process; since the alternative will have already been eliminated*'. In other words, models which disregard alternatives through sequential comparison or assessment of their attributes are classified as being *Non-Compensatory* (Schoemaker, 1980). Once these attributes have been omitted, the attributes cannot be assessed on any other attribute regardless of their performance on these subsequent attributes (Schoemaker, 1980). Other researchers have argued on the contrary that *'being 'Compensatory' implies that a decision-maker will 'trade-off' between a high value on one dimension of an alternative and a low value on another dimension*' (Payne, 1976:63).

The oldest descriptive theory is the '*Satisfying Model* 'which is closely linked to the idea of *Bounded Rationality* (Simon, 1960). The theory theorises that decision-makers choose an alternative that exceeds some criterion or standard (Simon, 1960). This argument is centred on the basis that decision-makers do not and are unable to maximise in most situations. In other words, the *Satisfying Model* entails choosing the first alternative that satisfies minimal standards of acceptability without exploring all possible alternatives (Nielsen, 2011). According to Simon (1997):

> *….''Decision-making whether individual or organisational is concerned with the discovery and selection of satisfactory alternatives; only in exceptional circumstances is it concerned with the discovery and selection of optimal alternatives'* (Simon, 1997:141).

In the case of the current research, the Fifteenth Conference of the Parties (COP15) of the UNFCCC aimed to establish a decisive legally-binding agreement by the end of 2012 to succeed the Kyoto Protocol. The establishment of a legally-binding agreement to reduce CO_2 emissions to stabilise greenhouse gases to reduce the impacts of climate change is taken as the optimal outcome of the decision-making process. The concept of *Bounded Rationality* is therefore considered more appropriate and is discussed in more depth in Section 2.4 below. The '*Garbage Can Model'* is another '*Descriptive Model'* in response to organised anarchies also known as decision situations, characterised by three general properties: '*Problematic Preferences', 'Unclear Technology' and 'Fluid Participation'* (Cohen et. al.,1972:12). The theory suggests:

> …''*that within an organised anarchy, it is difficult to assign preferences to a specific decision problem due to the fact that the organisation consists of a loose, ill-defined group of ideas rather than a set of clear preferences'* (Cohen et. al.,1972:13).

This model is fundamentally distinct from other descriptive theories, on the basis that when most decision situations occur, conventional practice is to determine the most appropriate action. Therefore, to understand processes within an organisation, one can view a choice opportunity as a '*Garbage Can'* into which various kinds of problems and solutions are deposited by participants as they are generated (Cohen et. al., 1972). This model was deemed unsuitable for the current research in that it does not take contextual factors into account. Rajagopalan et. al., (1993) maintain that despite the differences amongst the various models which have attempted to explain strategic decision-making, general propositions can be drawn about the likely influencing factors such as the internal organisation, context and environmental factors. Furthermore, mixing problems, solutions and decision participants results in interaction patterns leading to decisions which do not follow a logical process (Lunenburg, 2010).

A modern theory of the descriptive model of decision-making is the '*Image Theory'* developed by Beach and Mitchell (1990). '*Image Theory'* is based on the '*Lexicographic Model'* discussed below, and the '*Strategy Selection Model'* (Tversky, 1972). This model is a modification and synthesis of existing ideas applied to real world decisions (Tversky, 1972). The model attempts to describe two types of decision-making, namely, '*Progress Decisions' and 'Adoption Decisions'*. Progress decisions relate to whether past decisions are being carried out whilst adoption decisions replace incorrect or unachievable decisions made previously (Tversky, 1972). Due to the changing nature and complexity of climate change and the decision-making processes within the UN organisation, this model was not considered appropriate for the current research. More specifically, whilst progress decisions are applicable within the UN system, once a decision has been adopted, these decisions are not usually ratified due to the global impact these decisions have on nations.

The '*Conjunctive'* also known as the '*Disjunctive Model'* is a combination of models and works by combining information. The model, as proposed by a number of early researchers (Coombs and Kao, 1955; Dawes, 1974; Einhorn, 1970), '*aims to select a solution or a group of solutions from a list of alternatives'. 'All alternatives which exceed some threshold or aspiration level become part of this group' (*Einhorn, 1970:516). Alternatives which do not exceed the level are eliminated. The model attempts to search for an adequate solution or solutions rather than the optimal solution.

Inconsistent CO_2 emission reduction targets amongst members, mainly the developed nations and other signatory parties to the UNFCCC, excluded the '*Conjunctive Model'*. In essence, this is based on the premise that currently there exists no common threshold in terms of CO_2 reduction targets amongst Member States to discuss available alternatives in terms of the succession to the Kyoto Protocol. The Convention text is neither linked with quantitative emission reduction targets nor with certain threshold values as the limit of the atmospheric GHG concentrations (UNFCCC, 2006:21).

In the *Lexicographic Model* the decision-maker should '*know the attributes which make up the alternatives and must be able to rank them in order of importance'* (Tversky, 1969:23). Each pair of alternatives is compared in terms of attributes beginning with the most important, until dominance over one solution over the other occurs. Tversky and Kahneman (1974) '*go a step further and present a probabilistic model of choice – the 'Elimination By Aspects (EBA) Model' which is related to the earlier 'Lexicographic Model' in that they both follow intra-dimensional evaluation strategies* (Payne et. al., 1993:33). Each alternative is viewed as a set of aspects which are sequentially evaluated.

However, the complex nature of climate change decision-making makes it impossible for all the attributes to be known. It is a phenomenon with multiple dimensions with the cause and impact distributed unequally in a temporal and geographical perspective. For example, researchers have argued that different parameters in climate change models have different impacts and yield different results; as such, it becomes difficult to rank alternatives to make meaningful decisions to address climate change (Dessai and Hulme, 2004). Furthermore, the principles within the UNFCCC, defined in Article 3, view climate change as a collective challenge but one which needs to account for the different economic and geographical constitutions and capacities of the Member Parties which adds a further complexity to the model in terms of ranking evaluation strategies.

Klein (1989) developed the '*Recognition Primed Decision' (RPD) Model' as a descriptive model of decision-making in natural settings, i.e. within some organisational real life context, and contains four major components; recognising cases as 'Typical', 'Situational Understanding', 'Serial Evaluation' and 'Mental Stimulation' (*Klein, 1989:54). The four parts are employed in a sequential manner and involve revisiting and comparing previous decisions

along with simulating how various options may be carried out and what the outcomes could be (Dillon, 2007).

The challenges offered in applying the *RPD* Model of decision-making to this study are similar to those discussed above and have therefore been acknowledged but not included as suitable for this study. Furthermore, climate change does not have a typical nature, but varies significantly geographically and temporally.

Other models referred to in the descriptive literature are '*The Additive' and 'Additive Difference Model'*. These models are considered to be good approximations of multi-attribute decision-making behaviour in risk free situations and are more commonly used by researchers as tools to predict judgement of various experts such as clinical diagnosticians and stockbrokers (Schoemaker, 1980). However, these models were not appropriate to be used in the current study due to the risk, uncertainty and complexity associated with climate change.

'*The Judgement'* and '*Heuristics*' and '*Biases*' models represent other models in decision-making, more specifically from an economic psychology and behavioural economic literature perspective (Wilkinson, 2008). These models are considered alternatives to *Prospect Theory* discussed earlier in this chapter leading to the concepts of *Rationality* and *Bounded Rationality*.

2.4 Rationality and Bounded Rationality

According to Hendry (2000), earlier perspectives of strategic decision-making amplifies decisions as being conceptually unchallenging, ontologically unproblematic and shaped by managerial intention. This is a view grounded in the notions of '*Rationality*' which is defined as:

> … '*the use of scientific reasoning empiricism and positivism, as the decision criteria of evidence, logical argument and reasoning'* (Huczynski and Buchanan, 2007:12).

As previously identified, rational behaviour is '*typified by a decision-maker who has a 'well-organised and stable system of preferences including a skill in computation that enables the individual to calculate alternative courses of action available' (*Huczynski and Buchanan, 2007:14). One of these alternatives enables the individual to reach the highest attainable point on his preference scale (Simon, 1955).

2.4.1 The Rational Model of Decision-making

The *Rational Model* is based on the assumption that decision-makers are entirely rational and seek the best or most effective alternative for a given problem (Browne, 1993). The *Rational Model* is the classical approach in the field of decision theory and provides the foundation for the quantitative disciplines of economics, mathematics and statistics and is the primary reason

why many practitioners regard decision-making as essentially quantitative (Bartol et. al., 1998). However, criticism of the *Rational Model* was based on the fact that some problems in society cannot necessarily be addressed by quantitative models and the behavioural aspect of decision-making is fundamental, leading to the development of other decision-making models, such as the *theory of Bounded Rational.* As previously stated, Simon (1979) is the key proponent of this argument. The *Rational Model* explicitly presumes that if a given variable cannot be assigned a numeric value, it should be disregarded or assumed as a constant or given a value. The *Rational Model* is a model which operates within a closed environment with a single fixed objective and a rather precise number of variables.

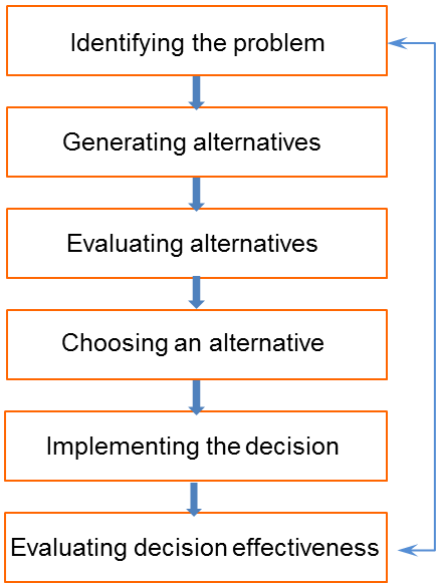
Neoclassical economic assumptions underpin such perspectives where decision-making is viewed as a rational choice based on logical connections between cause and effect, where the decision-maker identifies a problem, searches for alternative potential solutions, prioritises preferences according to identified criteria and arrives at an optimising choice (Miller et. al., 2006). In essence, rational decisions are decisions which are based on '*Rationality',* that is, on a rational mode of thinking (Simon, 1986; Langley, 1989).

The *Rational Model* of decision-making proposes a linear, sequential style of decision-making as depicted in Figure 6 comprising of six steps: Identifying and defining the problem; generating alternatives; evaluating the alternatives; gathering and analysing the facts relevant to the problem; and selecting the most satisfactory alternative and converting this to action.

The *Rational Model* further assumes that decision-makers:

i. Have complete information on the problem;
ii. Have complete information about all alternatives and the consequence of selecting one alternative over another;
iii. Make a decision solely on the basis of expectations of the future outcomes, rather than on power or political considerations (Schoernfield, 2011).

FIGURE 6 THE BASIC DECISION-MAKING PROCESSES OF THE RATIONAL MODEL



Source: Schoernfeld, A. (2011)

Climate change is a complex phenomenon with a considerable amount of uncertainty which affects the world population at large (UN, 2010). To date, no complete information on the appropriate solution(s) to address climate change exists. A number of decisions have been considered in relation to the succession of the Kyoto Protocol. In addition, many other discrete decisions outside the scope of this research, such as decision-making relating to reducing emissions from deforestation and forest degradation (REDD) in developing countries have been explored as a way to combat climate change. Furthermore, the UN system consists of 193 Member States (UN, 2010) comprising numerous political groupings such as the African Group, the Group of Seventy Seven Countries and China (G77+China), the Least Developed Countries (LDC), to mention just a few. The decision-making process within the UN system as it relates to the UNFCCC is discussed in more depth in Chapter Three.

Notwithstanding, given the above, the *Rational Model* of decision-making was deemed to be inappropriate in addressing the research questions due to the nature and uncertainty of the problem of climate change, the nature and organisational composition of the UN system in terms of the large number of Member States and political groupings within the UN system, and the role that these groups play in determining decisions.

A criticism of the *Rational Model* is that it aggregates the behaviour of individuals and groups. It assumes that since individual managers make rational decisions, group decision-making is also rational. In general, individuals and organisations such as the UN aspire to make as many decisions as possible on the basis of rational considerations. However, there are many situations where a Member State has voted against the decision of the group and as such, this creates a major impediment to this approach. Other factors relate to the nature of the UN organisation, constraints on resources, and limited information that can be amassed on

climate change and processed by a decision-making group, such as the African Group, within a given time.

Furthermore, Simon (1945) argued the limitations of the *Rational Model* and ascertained that decision-makers cannot operate under conditions of perfect rationality; instead decision-makers operate within a *Bounded Rationality*. Simon (1960) held *Bounded Rationality* recognises that:

i. *The definition of a situation is likely to be incomplete.*
ii. *It is impossible to generate all the alternatives.*
iii. *It is impossible to predict all the consequences of each alternative.*
iv. *Final decisions are often influenced by constructing personal and political factors'* Simon (1960:334).

The view that leaders operate within a *Bounded Rationality* is also held by other researchers. Miller and Wilson (2006) claim managers are independently rational and their behaviour is reasoned and not irrational, which is a natural distinction, but unrealistic in expecting them to meet the stringent requirements of strictly rational behaviour.

Numerous empirical studies of human decision–making from experiments in the laboratory to large-scale social surveys to observational studies in the field have demonstrated that individuals do not often conform to the strictures of rationality (Nutt and Wilson, 2010).

Furthermore, following an extensive review of the literature, *Bounded Rationality* has been a key component since the 1950s in both public administration and public policy studies (Jones, 1999). According to various researchers (Lyengar, 1990; Sniderman et. al.,1991; Marcus and Makuen, 1993) the theory of Bounded Rationality has also been used to understand political reasoning which is an important component in the decision-making process of the UN system as the assumption of rational agents in climate change agreements is not in line with reality, as this approach often ignores many important aspects of human behaviour (Gsottbauer and van den Bergh, 2012).

Recently, some researchers have examined the importance of alternative models of human behaviour in addressing environmental issues such as climate change (Gsottbauer and van den Bergh, 2010). However climate change negotiations and the associated decision-making processes has hardly been examined (Penetrante, 2012; Gsottbauer and van den Bergh, 2012).

The current research uses *Bounded Rationality* as the theoretical framework to observe the decision making processes of African leaders with the aim of putting forward recommendations with regards to the implications that observed Bounded Rationality and other factors (i.e. context) has for the design of environmental policy and international

negotiations. Shorgren and Taylor (2008) cited in Gsottbauer and van den Bergh 2012: 285) define a new environmental second-best problem, that is, they regard *Bounded Rationality* as a type of market failure which needs correction through public policy. In essence, Shorgren and Taylor argue that environmental policies should be considered to correct not only traditional market failures but also behavioural or rationality failures.

The most important current area of environmental policy making is undoubtedly climate policy which covers the reduction of greenhouse gas emissions and adaptation to climate change. These aspects as afore mentioned rest on the premise of rational behaviour. According to Gssottbauer and van den Bergh (2010: 289) *Bounded Rationality* is

> *….'particularly useful as an alternative basis for climate change analysis, as it offers views on decision-making under risk and uncertainty and in intertemporal settings. Few studies have so far addressed this issue*'

This argument is also supported by Gowdy, (2008) and Brekke and Johnson (2008). Inefficiencies that arise from decision-making deviating from rational assumptions in the realm of natural disaster are argued by some researchers to be ameliorated by putting in place sufficient measures accordingly as climate policy as proposed might not work as efficiently and effectively as expected due to *Bounded Rationality* and other–regarding preferences.

The impact of ambiguity of climate change and its consequences evidently needs further research. '*The role of Bounded Rationality in the formulation of international climate change agreements might receive more attention, to arrive at a realistic view of the limits and opportunities for agreement-making'* (Gssottbauer and van den Bergh, 2010: 289).

Furthermore, decision theories and models distinguish between group decision-making and negotiation processes (Celino and Concilio, 2010). These researchers contend that:

> '*In group decisions they may be a single decision maker who has the power to decide while other participants provide advice, interpretation, analysis etc…..however if the power to decide is shared amongst two or more participants, then decisions need to be negotiated. This does not imply that all decisions are made through negotiations, but involve activities that are 'typical of the negotiation process'' (*Kersten, 1997; cited in Celino and Concilo, 2010: 258).

Utilising the *Bounded Rationality theory* fits the current research due to the complex nature of the phenomena coupled with the unlimited dimensions and information on climate change. The over-arching aim of the African Leaders and the world at large is to reduce the level of

CO_2 and other dangerous gas emissions, and to address the impacts of climate change both in the short and long-term. The theory also allows for the study of decision-making processes.

Due to the significant importance of the succession of the Kyoto Protocol, the *Bounded Rationality theory a*llows the researcher to explore whether African Leader's when faced with decision-making of such magnitude are able to make a rational decision based on an African Common Position. Furthermore, from a practical perspective, understanding the decision-making processes of African Leaders can help policy development and implementation both in terms of climate change and other international issues.

Thus, there are many reasons for selecting *Bounded Rationality* to achieve the objectives of this study.

i. Based on the nature of the problem to be addressed and in line with the research questions. In essence:
    a. The definition of a situation is likely to be incomplete;
    b. It is impossible to generate all the alternatives;
    c. It is impossible to predict all the consequences of each alternative; and
    d. Final decisions are often influenced by constructing personal and political factors'.
ii. The literature showed strong empirical support.
iii. Studies using the *Theory of Bounded Rationality* have produced convincing results.
iv. The use of *Bounded Rationality* contributes to the body of literature in the field of strategic decision-making and is also used in a new context, i.e. the UNFCCC.
v. Bounded Rationality '*enables human behaviour including in group settings to be studied using techniques such as observation and interviewing in actual work settings'* (Simon, 1997:300). Therefore, the use of *Bounded Rationality* will be an added advantage to provide validity and credibility to the current research study in order to further add credibility to the study. This is discussed in Chapter Four, the Research Design and Methodology.

2.5 Different Levels of Decision-Making

As discussed in Section 2.3.2, decisions which occur regularly, are familiar, routine and made in a relatively straight forward fashion are known as programmed decisions (Simon, 1960). These decisions tend to be made lower down in the organisation and are more akin to the prescripts of the *Rational Model (*Butler, 1990).

In contrast, non-programmed decisions are unfamiliar, unusual and novel and are not encountered in the same way (Millerand Wilson, 2006). According to Papradakis and Barwise (1998), the topic for the decision maybe complex, making definition problematic, information

may be needed that is both difficult to collect and categorise, solutions hard to recognise, creating new problems, as evident in climate change (UN, 2009). These decisions are usually about significant areas of organisational activities, involve significant resources, with consequential repercussions and are often hard to sustain (Wilson et. al., 1996, 1999; Papadakis and Barwise, 1998). These non-programmed decisions also known as *'strategic decisions*', have implications for leaders and are usually sanctioned by the most senior executives in an organisation as evident in the study.

2.5.1 GROUP DECISION-MAKING

Largely absent in all of the decision-making treatment in public policy is an appreciation of the extent to which decision-makers attempt to influence others. Decisions are argued to be inevitably linked to interpersonal factors. Policy decisions in the international arena such as the UNFCCC are most often participative (UN, 2010). This means that participants such as Member States will attempt to form or alter the opinions of one another.

The study of group decision-making entails two units of analysis, both personal and interpersonal. Whilst the unit of analysis for the research is the UN as an organisation, according to researchers (Jensen 2007), the unit of analysis is individualistic because each person, although an actor in a larger group, behaves according to individual motives. Furthermore, Jensen (2007) states that individuals most often do not finalise policy decisions by themselves, thus the focus becomes personal as well as based on group dynamics. Individuals in a group often attempt to affect group decisions by using certain tactics of influence.

Interpersonal influence or power has been the subject of research by organisational scholars for many decades and can be used to provide insight into the use of influence tactics in policy groups. This research does not intend to look into the different theories of power, but briefly discusses the impact of power as it relates to group decision-making in the context of COP15.

Research to date has looked at power in the milieu of the literature on leadership (Yukl, 2006). Power is a very complex social science construct which spans several disciplines (Jensen, 2007). Various definitions of power have been given over the years, for example, '*the ability of individuals to influence others in a setting'* (Kipnis, 1976). Other researchers have defined power as influencing a person to do something that they would not otherwise have undertaken (Dahl, 1961). Furthermore, some researchers have made a distinction between power and influence. According to Yukl et. al., (1996), power is where an individual has the potential to influence and influence, is the actual change outcome of power. Drawing on the organisational behaviour literature, the research also discusses the tactics used by different African Leaders and members of the African Group in decision-making relating to the succession of the Kyoto Protocol in relation to the power of some African Member States relative to others.

To influence others, one must not only choose a tactic that fits the formal and informal institutional setting but also use the tactic in such a way that is socially acceptable. For example, in a structured international policy-making meeting such as the UNFCCC, Member States may make rational appeals to others in an attempt to influence them, a tactic that maybe socially acceptable, increasing the odds that the tactic outcome will be successful. Conversely, a Member State may make threats to others which may not be socially acceptable and may therefore result in resistance by others (Jensen, 2007).

Regarding decision outcomes, influence tactics can affect decisions in several ways. Yukl et. al., (1996) reveal that in a response to an influence attempt, members within a group may commit, comply or resist. According to Jensen (2007) tactics can affect decisions at the formative stage, before an individual has solidified an opinion. Alternatively, tactics can lead to varying degrees of decision-making changes on the part of the group, ranging from strong commitment to minimal compliance to complete resistance. Moreover, a Member State may not only resist the influence but instead may actually behave counter to the intention of the influencer. Certain influence tactics may elicit such a response, which goes beyond passive resistance and crosses into active resistance (Jensen, 2007).

Group decision outcomes have also been overlooked by researchers, potentially due to the difficulty of setting up the appropriate decision-tracking methodology (Jensen, 2007). Furthermore, according to Yukl and Tracey (1992), most studies to date have focused on the realm of individual-level human resource decisions, for example, selection and interview decisions, performance evaluations, and promotions and career progression (Higgins et. al., 2003). To date, no study has empirically linked influence attempts that occur in a group context to the decision outcomes of group members in the context of climate change, which are linked to group, organisational or governmental outcomes. Due to the scope and boundaries of the research, this can be considered as a subsidiary contribution and a potential area for future research in group decision-making and decision outcomes.

2.6 The Research Gap Identified

From the review it is evident that many authors have highlighted the importance of strategic decision-making. Furthermore, other researchers have argued that:

> ….*"the rationality of decision-making processes occupies a central place in the literature'* (Elbanna and Child, 2007:2).

Simon's (1977) coup of economic rationality-based decision-making models recognised rationality as '*bounded*'. Others have attempted to address aspects of the strategic decision-making process taking a rational choice approach (Weingast, 1996). Other researchers have considered decision-making related to the policy process (Kingdon, 1984) and in specific government settings as in Kingdon's (1989) in-depth research into congressional decision-

making processes. Other researchers also built on earlier analysis of congressional decision-making by examining many aspects of the decision-making environment, structure, participants and process (Davidson 1969; Froman, 1967). Others have viewed *Bounded Rationality* from a political reasoning choice perspective (Lyengar, 1990; Sniderman et. al., 1991; Marcus and McKuen, 1993). Furthermore, Sharp (1997) uses a rational choice institutional analysis to address policy outcomes while Coleman and Perl (1999) and a number of other scholars utilise the policy network approach (Borzel, 1998; Thatcher 1998; Howlett, 2002). Similarly, Dolowitz and Marsh (1996, 2000), Bissessar (2002) and Evans (2004), have explained decision-making and outcomes from a policy transfer perspective, while Rose (1993) contends that policy decisions and outcomes occur as a result of lessons that are drawn from other countries and other policy areas.

However, whilst researchers have undertaken immense research in the area of strategic decision-making, the key studies of which are shown in Table 1, to date limited research has been undertaken in Africa. The extensive review of the literature identified a handful of strategic decision-making studies in the continent of Africa. Furthermore, studies of the decision-making processes of African Leaders in the context of climate change have also not been adequately researched. The complexity of climate change and meeting the challenges attributed to addressing this issue is a feat that leaders can no longer ignore in decision-making.

As earlier identified in the *Rational Model* of decision-making, most decisions are made using relatively stable routine organisational processes which is standard within many organisations, as these processes operate incrementally in response to problems and serve to maintain the stability of an organisation over a period of time.

More importantly, the choice of *Bounded Rationality* is based on the broader definition of the dimensions of the organisational model beyond the neoclassical approach and is key to addressing the research questions.

As previously discussed, Simon (1976) makes five significant deviations from the *Rational Model* which reflects the behavioural aspects of strategic decision-making.

i. *Factored decisions*: Decisions are often so complex that only a limited number of the aspects can be attended to at a time. Thus decision-makers must divide decisions into a number of roughly interdependent parts and deal with the parts one by one within the various units of the organisation.

ii. *Satisfying outcome*: Maximising outcomes, which is characteristic of the *Rational Model* is replaced by the satisfying of outcomes in the *Organisational Model*.

iii. *Search:* Organisations generate alternatives by relatively stable, sequential search procedures.

iv. *Uncertainty avoidance*: Uncertainty tends to be avoided by making choices which emphasise short run feedback to provide for timely changes in emerging outcomes which appear to diverge from the objective at hand.

v. *Repertoires:* Organisations tend to have second and third alternatives which may be implemented if feedback indicates that a presumed satisfying choice is not yielding a desired outcome (Allison, 1971).

As mentioned above, the theory of *Bounded Rationality* has been put forward as a more precise description of how decisions are actually made in a multiplicity of organisations, such as the UN (Cyert and Marsh, 1963; March and Simon, 1976, 1997). The fundamental assumption is that decision-makers behave rationally within the constraints of their cognitive capabilities in an attempt to define the problem and formulate alternatives. In essence, decision-makers seek to make optimal choices but as previously stated are hampered by the following two boundaries of rationality:

i. All possible information about the problem and alternatives cannot be known within a given period.

ii. A decision may be based on criteria other than the rational and logical evaluation of the information, such as, the consideration of member preferences and coalitions in the organisation (Simon, 1976).

As a consequence of the cognitive constraints of not being able to gather and process information, decision-makers '*satisfy*' rather than '*optimise*' by selecting alternatives that appear' *sufficient*' to solve the problem. Child et. al., (2010) contend that strategic decision-making is shaped by three basic forces:

i. Conflict arising from the choice of an alternative is seldom totally resolved or confronted; rather it is only partially resolved through satisfying.

ii. Decision-makers limit their search for alternatives to a problem by staying within the boundaries of prior or existing alternatives that they know about and thought to avoid adding further ambiguity to the situation, and

iii. As a result of observing the consequences of their decisions organisations learn to modify the intended objective.

The research therefore aims to address the specific research questions as stated in Chapter One.

2.7 LIMITATIONS OF BOUNDED RATIONALITY

As previously highlighted, the term *Rationality* denotes a style of behaviour that is appropriate to the achievement of given goals within the limits imposed given conditions and constraints (Simon, 1972). The theories of rational behaviour can be '*normative' or 'descriptive'*, that is, it may *prescribe* how people or organisations should behave in order to achieve certain goals under certain conditions, or they may purport to *describe* how organisations or people behave (Simon, 1972). *Bounded Rationality* assumes that the rationality of individuals is limited by the information available and the cognitive limits of their minds and other factors, such as the time available in which to make decisions, i.e. '*decision-making in risk and uncertainty'*. It presents an alternative basis to the mathematical modelling of decision making as used in behavioural economics and other disciplines. In essence, the theory of *Bounded Rationality* revises the assumption of '*pure or perfect rationality'* to account for the fact that perfect rational decisions are not feasible in practice due to the finite number of computational resources available. Simon (1972) argues that decision-makers rather than select the optimal solution 'satisfy'. A satisfactory solution is selected amongst alternative choices rather than the optimal solution.

In essence, contrary to perfect 'Rationality', Bounded Rationality is always defined in a positive way, postulating what bounded rational agents do in organisations and in decision-making. However, few concepts in social science come with such a number of interpretations, connotations, and diverse modelling, as Bounded Rationality. Simons and Newells (1972) work in heuristics, Selte's Aspiration Adaptation Theory (1990) or Rubinstein's *Axiomatic Foundations for Bounded Rationality* (1998) or regularities established in experimental psychological research all have various interpretations (Foss, 2001). According to Foss (2001) not only is there a substantial disagreement as to what 'Bounded Rationality' actually means, there is also disagreement to what it implies with respect to understanding the behaviour of individuals and organisations.

> ….*'Not only is there very little agreement on what the concept means – apart from the vague phrases such as that ''man is intendedly rational, but only limited so'' - , there is also substantial disagreement as to what exactly it implies with respect to understanding the behaviour and organisation of firms'* (Foss, 2001:17).

Further criticisms of *Bounded Rationality* relate to the way in which it is modelled, For example, in the various '*organisational capabilities approach'* to Bounded Rationality which includes capabilities, dynamic capabilities, competences as well as the resource based approaches and the 'evolutionary theory of the firm', there is no clarity on how these various approaches commence with the theory of *Bounded Rationality*. Representative authors are Richardson (1972), Connor (1981), Langlots (1992), Fransman (1984) and Connor and Prahalad (1996).

Another limitation is the implications of Bounded Rationality in terms of the theory of the firm. 'Because there is limited transparency with respect to the nature and modelling of Bounded Rationality, *Bounded Rationality* in the actual practice of economists is taken up with firms and other organisations as part of the analyses. In other words, the boundaries within internal organisations and firms in its application are not delineated. For this reason its implications for the organisation and behaviour of firms is also unclear' (Foss, 2001:31)

Foss (2001) goes on to argue that the concept of *Bounded Rationality* is more rhetorical than applicable in reality. For example, in the use of the theory in transaction cost, economic and the organisational capabilities approach, bounded rational behaviour of individuals is not modelled.

Bounded Rationality is open to criticism for being often used as a concept which fits in all sorts of situations to explain observed deviations from maximising rationality (Conlisk 1996; Casson and Wadeson, 1997). Despite the limitations of Bounded Rationality, Gsottbauer and van den Bergh (2012:295) contend that 'the relevance of 'behavioural abnormalities and social motivations', which affects decision-making in a wide range of environmental contexts, ranging from energy decisions by household to negotiations for an international climate agreement', such as, the '*Copenhagen Accord'* cannot be overlooked.

2.8 CONCLUSION

Interest in strategic decision-making and decision-making processes has always been at the forefront of research; however empirical studies provided useful but limited insights. In addition, the extensive debate on strategic decision-making has been conducted in advanced countries which have vast experience and established cultures of fairly transparent decision-making processes.

This study contends that the scope of the majority of the studies reviewed were limited to western institutions and organisations. It can therefore be argued, that decision-making processes are 'bounded' and often influenced by organisational cultures. Therefore a decision-making process is not generic but is often affected by the nature of the environment, the context in which the decision is being made, the type of leadership and the decision-maker (Nutt and Wilson, 2010). Moreover, whist negotiation, decision-making and its associated processes is something that everyone has experienced; it remains a challenging endeavour in many situations which needs to be fully understood.

This chapter has reviewed and identified the gap in the literature in strategic decision-making. The UN as an organisation and the UNFCCC is discussed to set the context for the research study linking these areas to the research gap in the strategic decision-making literature. The following chapter explores the decision-making processes within the UN, more specifically, the

decision-making processes of the African Group as it relates to the UNFCCC prior to COP15. The various decision-making bodies, negotiating groupings and the African Group are also discussed.

CHAPTER THREE DECISION-MAKING AND CLIMATE CHANGE IN THE UNITED NATIONS

3.1 INTRODUCTION

This chapter analyses decision-making and the related processes in the context of the Kyoto Protocol under the United Nations Framework Convention on Climate Change. The chapter presents the decision-making parties within the UN system, the decision-making process, the decision lifecycles and the format used to decide on international issues such as climate change, the key decision-making bodies and political groups with the UNFCCC. The chapter also discusses the case for Africa in terms of climate change decision-making extenuating and culminating in the research gap emerging from the links discussed in the preceding chapter. The chapter concludes with a summary and an introduction to the research design and methodology.

3.2 THE UN: WHO MAKES DECISIONS?

The United Nations, popularly known as the UN, as stated in Chapter One, is an international organisation whose primary function is to address a wide range of global issues. In essence, the main activity of the UN is intergovernmental negotiations on a number of global issues such as the eradication of poverty and food security, safeguarding peace and disarmament, protecting human rights, combating terrorism and environmental issues, e.g. climate change which results in collective decision-making. The decisions made guide the work of the United Nations and shape new international, regional, national policies and actions (NGLS, 2003).

According to Kaufmann (1980) the functions of the UN can be summarised as to:

- Promote international cooperation on specific matters.
- Foster the peaceful settlement of disputes between Member States and provide the necessary peace keeping machinery.
- Promote the economic development of developing countries through a number of technical assistance and aid programmes.
- Provide an international meeting place for all member countries to meet to address issues.
- Combat racial discrimination and safe guard the human rights of individuals.
- Promote the right of self-determination of Member States.
- Collect and disseminate information.
- Elaborate on and ensure the compliance of internationally recognised rules.

To date, there are 195Member States of the UN (UN, 2012) accounting for almost every country in the world.

Member States must agree to uphold the UN Charter - the international treaty that established the UN after World War II, signed into force on 26th June 1945.

In addition to Member States, there are also a number of stakeholders and Non-Governmental Organisations (NGO's) that attend meetings and in some circumstances contribute to the UN decision-making process. Contributions made by these stakeholders are undertaken in a variety of ways, formal and informal, including direct and indirect activism. Only governments can negotiate, vote and affirm or reject official UN decisions and agreements.

In the context of this research, members of the African Group are Member States of the UN. At the time of conducting the research, all 53 counties of the African Continent were Member States of the UN and therefore have a responsibility to make decisions on the succession of the Kyoto Protocol under the UNFCCC at the Fifteenth Session of the Conference of the Parties (COP15) in Copenhagen.

3.2.1 UN Conferences and Summits

The UN organises world conferences and summits when Member States identify the need for collective agreement on an issue requiring international political and public attention. To date, such issues have included the education of women, the welfare of children, the eradication of poverty and, more recently, environmental issues, specifically climate change.

The UN conferences and summits draw upon high level political participation from governments, including Heads of State and Government, attracting the interests of people around the world by extensive publicity and media coverage (UN, 2008).

As previously stated, the research focuses on how African Leaders make a common decision as it relates to the issue of climate change, more specifically the UNFCCC in relation to the succession of the Kyoto Protocol. This forms the basis in which decision-making amongst African Leaders is explored using *Bounded Rationality*

3.2.2 Negotiations: How are Decisions Made?

The decision-making processes within the UN are complex and lengthy (NGLS, 2003). The decision-making process commences by a government proposal. This may be undertaken on an individual basis by a Member State or collectively (UN, 2010). The appropriate forum for the issue to be raised is identified, such as, the General Assembly, the Economic and Social Council (ECOSOC) or through a world conference, as in the context of this study, the Climate Change Conference in Copenhagen – COP15.

The issue is discussed in depth by the relevant governments and a draft text is compiled by negotiation in the form of a draft agreement with a request for a decision to be made (NGLS, 2003). The decision to be adopted can be made in a variety of formats. The majority of UN

decisions appear as resolutions which are a short text with accompanying documents that include background paragraphs followed by a list of operative paragraphs, or agreements on future actions (NGLS, 2003).

Other decisions made include declarations, notably concise statements stating a high level of political concern. Programmes of action are decisions made requiring governments to take a series of actions voluntarily. Legally binding conventions and treaties are complex decisions which may require countries to make changes to national domestic laws (NGLS, 2003). The UNFCCC is a Convention, whilst the Kyoto Protocol is a legally binding protocol under the convention.

Decisions on organisational issues are also made by Member States which are specifically designed to guide the overarching organisation and administration of a negotiation process. Examples include the election of officers for a specific meeting, i.e. chair of the meeting or plenary session; the adoption of the agenda and the determination of additional stakeholders invited to attend negotiation meetings in addition to Member States (UN, 2010).

3.2.3 The Lifecycle of a Decision

As stated earlier, the commencement of a decision starts by the preparation of a draft text. The draft text can be developed by the UN secretariat, the Chair of negotiations, a group of delegations, i.e. the European Union (EU) or the Group of 77 developing countries and China (G77 + China), an individual delegate usually referred as a participant or a facilitator appointed to undertake the task (NGLS, 2003). The process for resolutions is slightly different in that one or more ‘sponsor’ government usually drafts the text, which is subsequently registered by the Secretariat, following which an official document is distributed. Close consultation with delegates takes place with those responsible for drafting the text before the formal negotiation commences.

The draft text is discussed amongst members with views given. The content of the text is extensively reviewed by delegates with suggested amendments, deletions or additions as appropriate. This process usually takes time depending on how controversial the issue is amongst Member States in terms of what is acceptable or not. Usually, the Secretariat produces a comprehensive compilation of all changes proposed with sequential versions of the draft text as changes are made. Areas of disagreement are usually denoted in square brackets (NSLG, 2003). A series of additional sessions are conducted under the authority of the Chair where delegates continue the negotiation process in order to reach some common agreement resulting in the elimination of the brackets when a portion of the language text is agreed (NSLG, 2003).

Agreement is also usually sought by delegates with officials in their mission or home nation depending on the hierarchy of the delegate member with regard to the level of compromise if

applicable. This is usually recorded as *ad referendum*, which indicates the delegate member must check with their capital or ministry for final approval (UN, 2010).

As negotiations near their conclusion, there may need to be some 'reciprocity' as delegates consider the balance of elements in the 'package' and whether they can trade some aspects of the text in order to retain others (NSLG, 2003). When all the participating governments finally reach agreement on the exact wording of all portions of the text, the text is officially adopted (NSLG, 2003). If all the Member States are willing to accept the agreement, it is adopted by consensus. In certain situations where delegates cannot reach an agreement, the Chair may finally call for Member States to vote either for or against the proposal or to abstain. Occasionally, a Member State, may call for a roll-call vote to place on the record the vote of individual Member States (NSLG, 2003). Procedurally, the chairperson will call each country's name, and possible responses given which is then held on record.

If a Member State wishes to place their views on record, they may offer an explanation of their vote either before or after the vote. Alternatively, Member States may express a disagreement to the wording of the text or part of a text by entering a reservation after adoption (UN, 2010). This indicates strongly that a Member State does not agree to comply with one or more of the document's provisions (NSLG, 2003). Usually, reservations are proposed to be temporary, with the intention the Member State agrees with the decision in principle. Member States can also express disagreement with the text by the issuance of an '*interpretive statement*'. The interpretive statement defines their position and interprets what the suggested language in question means or does not mean.

The Evolution of an Agreement in Summary

The section below summaries the decision-making processes involved in the evolution of an agreement:

- The election of officers for the meeting is made with an agreement on the organisational issues to be discussed and agreed.
- The preparation and consideration of the initial draft '*outcome*' text is undertaken.
- The integration of the suggested agreed changes to the proposed text and proposals by the Secretariat, the Chair or the Facilitator is made.
- The proposals for the deletions of existing text or additions of new text are marked with square brackets. The revised text is subsequently distributed to Parties (Member States).
- Additional rounds of negotiations and changes are undertaken. Square brackets are removed from text as delegates reach agreement on the precise wording of the text.
- The final text is adopted by consensus of the Parties.
- Notification of any reservations is made by individual governments to the Secretariat.
- For legally binding instruments ratification to the agreement is made.

In case of legally binding treaties, such as the UNFCCC, these have to be signed and then ratified by each signatory or participating Member State. This allows the governments of Member States time to seek domestic approval to the agreement either through parliament or other legislative bodies prior to the adoption of the agreement. In most cases, these types of agreements result in changes to existing domestic law or the creation of new laws. Appendix 3 lists African Member States who are signatories to the Kyoto Protocol.

3.2.4 The United Nations Framework Convention on Climate Change

International treaties are usually referred to as '*Conventions*' or '*Agreements'*. These instruments are legally binding agreements between Member States. Protocols such as the Kyoto Protocol are sub-agreements to existing treaties.

As outlined in Chapter One, Section 7.4 of the Kyoto Protocol (attached as Appendix 5) was adopted in 1997 under the auspices of the UNFCCC. The UNFCCC is a global political framework put in place to address the challenges of climate change and was the first binding agreement of quantified emission reductions proposed by developed countries (UNFCCC, 2010). Due to the conclusion of the Kyoto Protocol in 2012, in 2007 Member States in Bali, through the Bali Road Map (Bali Road Map, 2007), agreed to work on a long-term cooperative action to create a post-2012 agreement to be finalised at COP15 in Copenhagen, Denmark. The purpose of COP15 was to achieve an outcome that would set the course for climate change stabilisation, and encourage global development based on environmentally friendly and sustainable strategies (UN, 2011). The decision-making processes followed by the African Group in relation to the succession of the Kyoto Protocol are discussed in depth in Section 3.4.

3.2.5 Types of meeting for negotiations

The negotiating processes during UN Conferences, such as the UNFCCC at COP15, usually take place twice a day, with a session held in the morning and one in the afternoon. When debates are prolonged, extra evening sessions are normally scheduled. As such, it is not uncommon for the final sessions to be extended throughout the night to complete the negotiations. This is evident in the case and discussed in depth in Chapter Five.

The sessions take place in two formats, namely *Open* or *Closed* (NLSG, 2003). Open or formal sessions form part of the official record and can be attended by every accredited person registered to join the conference, including NGOs and the media. Attendance includes the plenary sessions, where all delegates to the conference are allowed to participate. Plenary sessions are used to open a major intergovernmental meeting, such as COP15, and are where Member States make their individual policy statements (NSLG, 2003). In these forums formal decisions are made, including the final adoption of an agreed text, by consensus or a vote, or by the noting of reservations.

The Daily Journal

All formal meetings at the United Nations are listed daily in The Daily Journal – hence the name. It notes whether the meeting is open or closed to the media, and includes a list of the relevant UN documents for meetings as well as relevant newly issued documents. The publication is available daily throughout all the UN conference buildings and is usually handed out at entrances. The Daily Journal is also available at the Secretariat, the conference Document Centre, in press rooms, at NGO centres and/or publicity stands and online. An extract from the Daily Journal dated Thursday December 10th2009 of COP15 is attached as Appendix 6.

When governments reach a point in a negotiation process where details need to be clarified in depth, particularly on contentious topics such as the Kyoto Protocol, there is often the need to break into informal closed sessions. These are referred to as Working Groups (NSLG, 2003). The Working Groups are usually closed to everyone except delegates and Secretariat staff; however, NGOs may be allowed to attend as observers, depending on the past practice in a given negotiation process and the discretion of the Chairperson. The negotiations in informal sessions are not recorded in the official record. A negotiating process that is working on a long document may request delegations to break into a number of informal working groups that can meet at any time, in order to accommodate smaller delegations (NGLS, 2003).

Often, governments form contact groups, or hold '*informal informals'.* These are additional meetings which are restricted to a core group of delegates. These meet outside the main negotiation rooms, generally at a time and place announced in the working group, and bring together only those governments with a strong interest in a particular issue that has caused disagreement. Contact groups seek to bring widely conflicting positions closer together, before presenting the results of the discussions to the meeting at large. They also save time by allowing concerned delegates to have a detailed discussion whilst the rest of the working group continues deliberating (NGLS, 2003).

Towards the end of complicated negotiations, when pressured for time, delegates may group, either in or across the negotiation groups, on the negotiating floor to finalise last-minute details. Contentious issues often end up being tackled by measures such as the use of a facilitator, an extended bureau or 'friends of the Chair' (NGLS, 2003). The Chair, working with a handful of governments on a particularly contentious issue, may have to use all his or her power of persuasion or creative suggestions on a new language in order to bring about consensus (NGLS, 2003). This is evident in the analysis of the study in subsequent chapters.

3.2.6 Formal UNFCCC Negotiating and Political Groups

Climate change negotiations are complex due to their multi-dimensional nature. The negotiations have been compared to a puzzle game where Member States try to put pieces

together though an iterative decision-making process (Herren, 2009). The following section therefore attempts to explore the decision-making process of the climate regime as embedded in the theoretical context of the research.

Negotiation takes place within the convention framework to develop policies and operational procedures. There is scientific agreement that an increase in global average temperature will threaten development efforts in the South, more specifically in the developing and least developed countries (IPCC, 2007; UNDP, 2007). As such, one of the challenging contradictions is that development is one of the key drivers of climate change therefore policy-makers are often met with fundamental trade-offs between development and climate change (Herren, 2009).

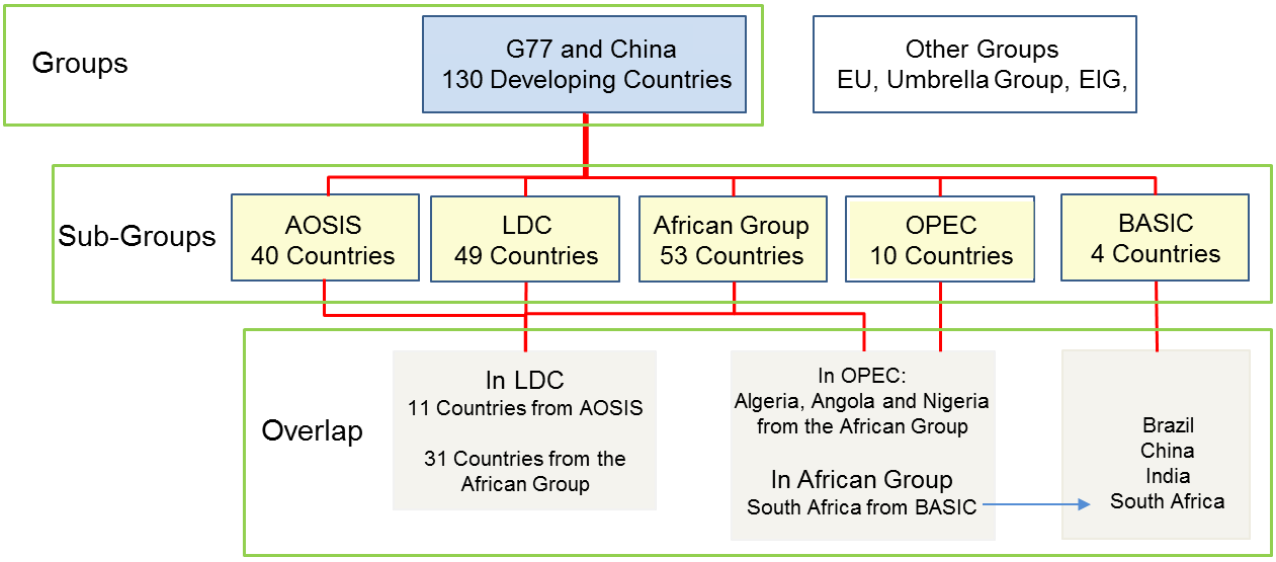
A further challenge associated with the negotiation process of the UNFCCC, is that the causes and impact of climate change are distributed unequally in a temporal and geographical perspective causing a bigger gap between the rich and poor nations. As a result, the fifteen years of negotiation under the UNFCCC has seen countries affiliating themselves to nations with similar agendas. Under the Convention, three major groups of states have been established, namely, Annex I Parties (AIP), Annex II Parties and Non-Annex I Parties as defined in Chapter One Section 1.7.4.

The UNFCCC Political Negotiating Groups

Most Member States are affiliated with one or more political groupings under the UNFCCC where they have common interest and also to strengthen their negotiating position usually against the Annex I Counties, as afore mentioned. Meetings usually take place in closed sessions to develop positions and revisions to text in order to achieve common decisions and outcomes.

The following negotiating groups are stated within the UNFCCC (UNFCCC, 2006:51). These groupings are illustrated in Figure 7 below.

FIGURE 7 THE POLITICAL GROUPINGS UNDER THE UNFCCC



Source: Compiled by the Researcher from the field work.

i. The African Group

The African Group, the focus group of the research, consists of the 53 Member States of the continent of Africa. Most African countries are signatories to the Kyoto Protocol excluding two as indicated in Appendix4.

ii. Alliance of Small Island States (AOSIS)

A collation of 43 low-lying and small island countries that are particularly vulnerable to sea-level rise.

iii. Developing Countries – Group of 77 and China

132 members including China forming a diverse group with different interests on climate change issues. All Member States of the African Group are members of G77 and China Group (G77+China).

iv. Organisation of Petroleum Exporting Countries (OPEC)

There are 10 countries which are members of OPEC, three of which are Members of the African Group – Algeria, Angola and Nigeria.

v. European Union

27 Members are parties to the convention, but the EU Presidency often voices their collective view.

vi. Environmental Integrity Group (EIG)

A coalition that highlights environmental issues during negotiations and attempts to minimise the trade in carbon sinks. There are currently three member countries.

vii. BASIC Countries

The BASIC Countries were formed during COP15 and consist of Brazil, South Africa, India and China and are very powerful emerging economies.

In the decision-making process, proposals for agreement result in these groups negotiating as independent groups. Occasionally coalitions will be formed to strengthen their bargaining positions. A common position is usually represented by the Chair of the group in the COP. If a common position cannot be established amongst group members at the COP by prior voting, Parties stand alone in the negotiating proceedings (NSLG, 2003).

Other organisations, as stated, are the observer organisations. These organisations take part at COP meetings based on the *draft rules of procedures* where only upon the invitation of the President of the COP are these organisations allowed to participate. There are no voting rights to the proceedings in any sessions in matters of concern to them (UNFCCC, 2006).

The decision-making and negotiation processes under the UNFCCC are almost as complicated as the phenomenon of climate change itself (Herren, 2009). The section below further explores the concept of decision-making in relation to the UNFCCC.

3.3 DECISION-MAKING, CLIMATE CHANGE AND THE UNFCCC

According to Stern (2006) '*the scientific evidence that climate change is a serious and urgent issue is now compelling. The problem of climate change warrants strong action to reduce greenhouse gas emissions around the world; and to reduce the risk of very damaging and potentially irreversible impacts on ecosystems, societies and economies'* (Stern, 2006:23). This observation is also supported by the Fourth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC, 2007).

Since climate change is a global issue, comprehensive analysis of mitigation, adaptation and research measures are needed to identify the most efficient and appropriate strategy to address climate change. International decision-making related to climate change as established by the Framework Convention on Climate Change is a collective process in which a variety of concerns, such as equity, ecological protection, economics, ethics, and poverty related issues are of special significance for present and future generations (IPCC, 2007).

Treatments of decision-making, technology development, diffusion processes and distributional considerations are at present relatively poorly developed in international environmental economics, in the climate change literature (IPCC, 2007) and in management. This is attributed to large uncertainties both scientific and economic, the non-linearities and irreversibilities, asymmetric distribution of impacts geographically and temporally (IPCC, 2007), the very long-time horizons and the global nature of climate change.

The other dimension that magnifies uncertainties and complicates decision-making is geographical; climate change as a global problem encompasses an incredibly diverse mix of human societies, with different histories, circumstances and capabilities (IPCC, 2007). Many developing countries have relatively hot climates, and depend more heavily on agriculture and have less well developed infrastructures and social structures. Research has shown that these economies suffer more from the impacts of climate change (IIED, 2009).

The global nature of climate change therefore requires collective action by governments. Furthermore, the large differences in the circumstances of different Parties as a result of climate change raise consequential as well as procedural issues (UNFCCC, 2010).

Consequential issues relate to outcomes whereas procedural issues relate to how decisions are made (UN, 2010).

3.3.1 THE UNFCCC DECISION-MAKING PROCESS

Climate change decision-making can be structured into three different categories (UN, 2006). Each category has different implications and distinct focus for global optimisation. *Procedural decision-making* involves establishing and refining rules of procedures; *Collective decision-making* involves distributional issues; and *Processes* involves the interaction of numerous independent decision-makers (IPCC,1996).The research as previously stated in Chapter One looks at the latter, i.e. the process of decision-making.

Resolution 45/212 of the UN General Assembly on 21st December 1990 was adopted to establish the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (UNFCCC, 2006: 18). The Convention text for the UNFCCC was developed and finalised as a legally binding treaty under the UN during the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in Brazil in 1992. The UNFCCC came into effect on 21st March 1994 and was signed by 166 UN Member States on the UNCED. Today, there are currently 194 signatories to the UNFCCC and one regional economic integration organisation, the European Union (UNFCCC, 2010). The first COP (COP1) under the UNFCCC was held in Berlin, Germany in 1995 (UNFCCC, 2006:19). Since 1995, annual meetings of the COP have taken place. Table 3 below shows the timeline of the various COP meetings leading up to COP15 in Copenhagen in 2009.

TABLE 3 THE UNFCCC DECISION-MAKING TIMETABLE

Year	Activity in relation to the UNFCCC	Location of UNFCCC Meeting
2009	Nov/ Dec COP15 and MOP 5 The Copenhagen Accord Nov. Climate Change Talks Sept. UN High Level talks on Climate Change Aug. Climate Change Talks	Copenhagen, Denmark Barcelona, Spain UN Headquarters, New York, USA Bangkok, Thailand
2008	Apr. Negotiating sessions Jun. Negotiating sessions Aug. Negotiating sessions Dec. COP14 and MOP4	Bangkok, Thailand Bonn, Germany Accra, Ghana Poznan, Poland
2007	Dec. COP13 and CMP3 Sept. High-level event on climate change	Bali, Indonesia UN Headquarters, New York, USA
2006	Nov. COP12 and COP/MOP 2 Nairobi Work Programme on Adaption	Nairobi, Kenya
2005	Nov/Dec. COP11 and COP/ MOP 1 Feb: Entry into force of the Kyoto Protocol	Montreal, Canada
2004	Dec. COP10 Buenos Aires Programme of work on Adaptation and Response Measures	Buenos Aires, Argentina
2002	Oct/ Nov. COP8 Delhi Declaration Aug/Sept. Progress since 1992 reviewed at World Summit on Sustainable Development.	New Delhi, India
2001	Oct/ Nov. COP7 Marrakesh Accords July: COP6 Resumes Bonn Agreements Apr. IPCC Third Assessment Report	Marrakesh, Morocco Bonn, Germany
2000	Nov. COP6 Talks based on the Plan break down	The Hague, Netherlands

Year	Activity in relation to the UNFCCC	Location of UNFCCC Meeting
1998	Nov. COP4 Buenos Aires, Argentina Buenos Aires Plan of Action	Buenos Aires, Argentina
1997	Dec. COP3 The Kyoto Protocol Adopted	Kyoto, Japan
1995	Mar/ Apr. COP1 Berlin Mandate	Berlin, Germany
1994	Mar. Convention enters into force.	
1992	Jun. Convention open for signatures at Earth Summit in Rio de Janeiro	
1992	May. INC adopts UNFCCC text	
1991	First meeting of the International Negotiating Committee (INC)	

Source: Adapted by the author for the research from the UNFCCC (2007)

The Convention text comprises 26 Articles which define the legal foundations of the UNFCCC encompassing the objectives, principles, commitments, Convention bodies, functions, financial rules, guidelines and procedures for decision-making and the implementation of the decisions (UNFCCC, 2007).

The Berlin Mandate contained the first step in enacting a legally binding treaty for the commitments on greenhouse (GHG) emission reductions, including a deadline for a multilateral treaty to be put in place by 1997 at COP3 establishing the Kyoto Protocol (UNFCCC 2006:19).

The ultimate objective of the UNFCCC is:

> ... '*to achieve in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'* (UNFCCC, 1992:4).

In essence, the Convention text states that climate change and the impacts of global warming caused by anthropogenic greenhouse gas (GHG) emissions are considered to have a drastic impact on people's lives and the environment in which we live. According to the UNFCCC (2007), the Convention's provision relates to all GHG's not explicitly covered in the 1987 Montreal Protocol to the UN Convention Protection of the Ozone Layer which is outside the scope of the research. Notwithstanding, the focus of the Kyoto Protocol is the following six gases:

- Carbon Dioxide CO_2
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur Hexafluoride (SF_3)

The decision-making procedures for the UNFCCC were made and adopted in COP1. The rules articulate the processes for decision-making in addition to voting, agenda adoptions, budgetary matters and the location and dates of sessions. These matters are not contained within the Convention text. The draft rules of procedure also comprise the specific roles and responsibilities of institutions, designated officials and other stakeholders as applicable (UNFCCC, 2006:41).

The decision-making processes are based on Article 15 of the Convention and on the rules of procedure, i.e. Rule 42 which states that:

> ...*"decisions should contain every effort to reach agreement on any proposed amendments to the Convention by consensus'* (UNFCCC 1992:18).

In other words the UNFCCC postulates that for an agreement to be legally binding, all voting Parties to the Convention must agree to the proposal for the decision to be adopted.

The Kyoto Protocol was adopted at COP3 on 11th December, 1997 as an additional protocol to the UNFCCC in accordance with Article 2 of the Convention (UNFCCC, 2006:72). COP3 held in Kyoto, Japan was attended by more than 10,000 participants, 155 Parties and six observer states including 278 observer organisations (UNFCCC, 1997).

The Kyoto Protocol regulates GHG emissions of the industrialised countries and consists of 28 Articles and two Annexes (UNFCCC, 2007). As previously stated the convention divides countries into three groups with different commitments namely:

- Annex I Parties
- Annex II Parties
- Non-Annex I Parties (UNFCCC, 2007:15).

To alleviate Annex I countries of their emission reduction targets and to achieve their quantified emission limitation and reduction objectives (QELROs) the Kyoto Protocol established market-based instruments. These flexible mechanisms, i.e. the International Emissions Trading (IET), the Joint Implementation (JI) and the Clean Development Mechanism (CDM) offer flexible incentives for developed countries to work with developing countries. Developing countries are offered financial incentives to help developed countries

reach their emission reduction targets. The US remains the only country not to have ratified the Kyoto Protocol (UNFCCC, 2007).

3.4 THE CASE FOR AFRICA

Whilst researchers have recognised that the impacts of climate change will affect all countries, the poor will be disproportionately affected (AU, 2008).

> …*''Reliance on local ecological resources, coupled with existing stresses on health and well-being (e.g. HIV/AIDS, illiteracy) and limited financial, institutional and human resources leave the poor most vulnerable and least able to adapt to the impacts of climate change'*(AU, 2008:57).

As such, there is a growing recognition that climate change may undermine the ability of developing countries to meet the targets put forth in the United Nations Millennium Development Goals (MGDs), thereby slowing progress towards sustainable development (UN, 2010). Researchers have stipulated that, ironically, the vast majority of those most vulnerable to the impacts of climate change are also the least responsible for contributing to it in the form of GHG emissions (IISD, 2007).

More specifically, the economies of African countries depend largely on sectors such as agriculture, fisheries, forestry and tourism. These sectors are particularly vulnerable to environmental changes. Among such changes, climate change emerges as one of the most challenging and threatening, significantly affecting development in Africa (AU, 2008).

Climate change is expected to result in increased frequency and severity of droughts, floods and other extreme weather events adding to stress on water resources, food security, health, infrastructure and thus overall development. Most African communities are vulnerable to these impacts mainly because of high poverty levels, reliance on rain-fed agriculture, lack of access to technology and improved cultural practices (AU, 2008).

3.4.1 FACING THE CLIMATE CHANGE CHALLENGE IN AFRICA

Africa's political leaders have expressed explicit commitments to tackle the problem of climate change (AU, 2010). More specifically, during the Eighth Ordinary Session of the African Union which was held in January 2007, African Heads of States and Government expressed concern of the susceptibility of Africa as a continent to the challenges posed by climate change (AU, 2008). In their decision and declaration on climate change, a decision was made to request Africa's cooperation partners to support Member States and the Regional Economic Communities (RECs) to effectively integrate and implement adaptation and mitigation measures to compact climate change into their development plans (AU, 2008). African States and RECs were also urged in conjunction with the private sector, interest groups and development partners, to integrate climate change initiatives into development strategies at

national and regional levels. Furthermore, the African Union Commission was requested to work with the United Nations Economic Commission for Africa (ECA) and the African Development Bank (AfDB) to develop an overarching plan on climate change and development for Africa as a continent (AU, 2008).

In April 2007, at the Fourteenth Session of the ECA Conference of African Ministers on Finance, Planning and Economic Development, a resolution was adopted engaging African Member States and development partners to support the implementation of the plan. In agreement with these decisions, the ECA partnered with the AUC to develop and implement in collaboration with relevant regional and international institutions a major Climate Information for Development in Africa Programme (ClimDev Africa). The programme aimed to promote and support the integration of Climate Risk Management (CRM) into pertinent policy and decision-making processes including sectoral practices throughout the continent.

Notwithstanding these initial efforts on the part of Africa, climate change is a global problem and response to it must be international and holistic based on a shared vision and long-term goals and decisions on frameworks that will accelerate action (UN, 2010). The decisions made must also build on mutually reinforcing approaches at national, regional and international levels (Stern, 2006).

As outlined earlier in the chapter, dialogue amongst the key international partners to explore global climate change strategies is formally carried out under the UNFCCC.

The UNFCCC and its Kyoto Protocol are the most recognised and advanced elements of the global response to climate change. Whilst the Kyoto Protocol has established some guidelines in the various Articles that should prove useful for the future global climate regime, including country differentiation, the ability to separate equity and efficiency issues, flexibility for meeting commitments, the comprehensive treatment of all emissions sources and all GHG, and the market mechanisms that incorporate developing countries (Perez-Arriaga et. al., 2009) it is still an issue that needs careful and collective decision-making (Odey, 2009). The Protocol also requires Parties to begin to consider the post-2012 period which forms the focus of this research from the perspective of the African Leaders on behalf of the continent.

The launch of a two-track process initiated under the Conference of the Parties (COP) serving as Meeting of the Parties to the Kyoto Protocol (COP11/MOP1) held in Montreal in November/ December 2005 gave a considerable enhancement towards the development of a more effective and inclusive process to addressing the issue of climate change post-2012. The trajectory of the decision-making processes and the decisions made relating to the UNFCCC is indicated in Table 3 above.

The Ad hoc Working Group (AWG) on further Commitments for Annex I Parties under the Kyoto Protocol (AWG – KP) was established by decision 1/CMP.1 to, amongst other things,

ensure that there is no gap between the first (2008 - 2012) and the second (post-2012) commitment periods. This is in accordance with the Kyoto Protocol Article 3.9 which relates to future commitments. At COP13, many Parties highlighted the urgency of agreeing on a post-2012 regime including members of the African Group, with some emphasising it should involve all major emitters, taking into cognisance the principle of '*common but differentiated responsibilities'* (UNFCCC, 2007). The section below gives a detailed account of the various meetings attended by Members of the African Group leading up to COP15.

3.5 THE UN DECISION-MAKING PROCESS - JOURNEY TO COP15

The international political response to climate change commenced with the decision-making process which resulted in the adoption of the UNFCCC in 1992 as highlighted previously. This set out a framework for action aimed at stabilising atmospheric concentrations of greenhouse gases to avoid '*dangerous anthropogenic interference*' with the climate system (UNFCCC, 2007).

In December 1997, Member States at COP3 in Kyoto, Japan, agreed to a Protocol to the UNFCCC committing industrialised countries and countries in transition to a market economy to achieve emission reduction targets (UNFCCC, 2007). These countries, known under the UNFCCC as Annex I Parties, agreed to reduce their overall emissions of six greenhouse gases by an average of 5.2 per cent below 1990 levels between 2008 and 2012 during the first commitment period. The specific reduction targets would vary from country to country.

In 2005, at COP/MOP1 in Montreal, Canada, Parties established the AWG-KP on the basis of the Protocol Article 3.9, which mandates consideration for Annex I Parties' further commitments at least seven years before the end of the first commitment period (UNFCCC, 2007). In addition, COP11 in Montreal agreed to consider long-term cooperation under the Convention through a series of four workshops known as 'the Convention Dialogue,' which continued up until COP13 in Bali, Indonesia (UNFCCC, 2007).

The Bali Road Map: COP13 and COP/MOP 3 took place in December 2007. The focus was on long-term issues and the negotiations resulted in the adoption of the Bali Action Plan (BAP). The session resulted in the establishment of the Ad-Hoc Working Group on Long-Term Cooperative Action (AWG-LCA) with a mandate to focus on the key elements of long-term cooperation identified during the Convention Dialogue, namely, *Mitigation; Adaption; Finance; Technology and Capacity Building*. The BAP also called for articulating a '*shared vision for long-term cooperative action, including a long-term global goal for emission reductions'* (UNFCCC, 2007).

Subsequently, Parties agreed on a two-year negotiating process. This comprised of the Bali Roadmap, which included '*tracks'* under the Convention and the Protocol and set a deadline for concluding the negotiations in Copenhagen (UNFCCC, 2007). The two key bodies under

the Bali Road Map are the AWG-LCA and the AWG-KP, which held four negotiations sessions in 2008: April in Bangkok, Thailand; June in Bonn, Germany; August in Accra, Ghana; and December in Poznan, Poland (TWN, 2009).

*AWG-LCA 5 and AWG-KP 7***:** From 29th March to 8th April 2009, AWG-LCA 5 and AWG-KP 7 convened in Bonn, Germany. The main objective of the sessions was to work towards negotiating text under both AWGs. Based on a note (FCCC/AWGLCA/2009/4, Parts I and II), prepared by the Chair, discussions at AWG-LCA 5 focused on elaborating elements for a draft negotiating text to be prepared by the Chair for AWG-LCA 6 (ENB, 2009).

AWG-KP 7 focused on emission reductions by Annex I Parties under the Kyoto Protocol beyond 2012 and on legal issues, including possible Protocol amendments. The AWG-KP also considered potential consequences of response measures and the other issues in its work programme (FCCC/KP/AWG/2008/8). This included flexibility mechanisms; land use, land-use change and forestry (LULUCF); and methodological issues. The AWG-KP requested its Chair to prepare two documents for its next session: a proposal for Protocol amendments under Article 3.9 (Annex I Parties' further commitments); and a text on other issues (EBN, 2009).

AWG-LCA 6 and AWG-KP 8: From 1st to 12th June 2009, AWG-LCA 6 and AWG-KP 8 were convened in Bonn, Germany, in conjunction with the 30th Session of the Subsidiary Body for Implementation (SBI) and Subsidiary Body for Scientific and Technological Advice (SBSTA). These bodies are subsidiary bodies of the convention and are outside the scope of the research. AWG-LCA 6 focused on developing negotiating text, using a draft prepared by the Chair (FCCC/AWGLCA/2009/8). Parties clarified and developed their comprehensive proposals with the main outcome being a revised negotiating text (FCCC/AWGLCA/2009/INF.1). This text was approximately 200 pages long and covered all the main elements of the BAP. On the other hand, AWG-KP 8 focused on Annex I Parties' aggregate and individual emission reduction targets. The meeting concluded with an agreement to continue discussions on these matters including other concerns based on the documents prepared by the AWG-KP Chair.

Notwithstanding, by the conclusion of the June 2009 session, the Secretariat was in receipt of five alternative proposals for a new Protocol under the Convention. Twelve further submissions relating to amendments to the Kyoto Protocol were also proposed for adoption in Copenhagen (ENB, 2009).

Informal AWGs: From 10th to 14th August 2009, the AWG-LCA and AWG-KP held a number of informal inter-sessional consultations in Bonn, Germany. The focus for the AWG-LCA was on how to proceed with the revised negotiating text (FCCC/AWGLCA/2009/INF.1). Reading guides, tables, matrices and non-papers (FCCC/AWGLCA/2009/INF.2) were produced which were aimed at making the negotiating text more manageable. Under the AWG-KP, discussions continued on Annex I parties' emission reductions, potential consequences and

other issues. The results were reflected in the revised documentation prepared by the Chair for Bangkok.

The AWG-LCA 7 and AWG-KP 9 took place from 28th September to 9th October 2009. This session was attended by the researcher and is discussed in more depth in Chapter Five. The first part of AWG-LCA 7 and first part of AWG-KP 9 convened in Bangkok, Thailand. Both AWGs resumed their sessions from 2nd to 6th November 2009 in Barcelona, Spain. The aim of the AWG-LCA 7 was to streamline and consolidate the negotiating text. The outcome at the end of the session was a series of non-papers, forwarded to Copenhagen as an Annex to the meeting report (FCCC/AWGLCA/2009/14). While progress on issues such as adaptation, technology and capacity building was commonly described as satisfactory by members of the African Group, however, many felt that 'deep divides' had emerged on mitigation and finance (ENB, 2009).

During AWG-KP 9, discussions continued on all the issues in the AWG-KP's work programme. Most Parties felt that no significant progress had been made on Annex I Parties' aggregate and individual targets (ENB, 2009). Furthermore, strong differences began to surface between the developed and developing countries, more specifically, concerning whether the outcome from Copenhagen should be an amendment to the Kyoto Protocol or a single new agreement.

In essence, AWG-KP 9 did not achieve the decision outcomes expected or conclude on the consideration of any of the issues within the prescribed work programme. The above two sessions were used as the pre-pilot and pilot prior to the main study in Copenhagen and are discussed as stated earlier in Chapter Five of this thesis.

3.6 THE RESEARCH GAP

The researcher has argued that the degree of rationality involved in strategic decision-making has long been recognised as one of its key dimensions, and has been the subject of considerable theoretical and empirical investigation in the literature (Nutt and Wilson, 2010; Snyman and Drew, 2003; Wilson, 2003; Elbanna, 2006; Hough and White, 2003; Boyd and Reuning-Elliot, 1998; Dean and Sharfman, 1993; Eisenhardt and Zbacacki, 1992; Fredricken, 1984; Hart, 1992; Lanley, 1989; Lindblom, 1959; Mintzberg, 1990, 1998; Simon, 1956, 1978).

As discussed in section 2.2, research into decision-making has often been divided into two categories: *'Content Research'* and '*Process Research'* (Elbanna and Child, 2007). According to Elbanna and Child (2007) *Content Research* refers to portfolio management, diversification, acquisitions and mergers and the alignment of firms' strategies with environmental characteristics. *Process Research* by contrast, deals with the process through which a strategic decision is made and implemented, and the factors which affect the process. In essence, process research investigates a number of fundamental questions that are of interest to decision-makers as indicated in Figure 9 which highlights the research gap.

Researchers have also contended (Nutt and Wilson, 2010; Mintzberg and Waters, 1985) that these two types of research are complementary: content research can significantly influence the direction of process research and vice versa. Whilst the issues of content has tended to predominate in research over the last two decades, according to Rajagopalan et. al., (1997) process research has not been adequately researched, and as such, the interest in this field has been growing significantly.

The *Rationality of Decision-making* processes occupy a central place in the literature on strategic decision-making (Elbanna, 2006; Miller et. al., 1996). However, according to some researchers there exists inconsistency amongst the results of previous studies on strategic decision rationality (Papadakis et. al., 1998; Dean and Sharfman, 1993; Fredickson, and Iaquinto, 1989; Kukalls, 1991) and therefore advocate the need for further research to investigate the role of content in strategic decision rationality.

Additionally, according to Dean and Sharfman (1993) rationality characterises behaviour that is logical in pursuing goals, which underlies many social science models of rationality. For example in economics, rationality equates to utility maximisation as economists tend to focus on a particular stringent conception in which individuals are assumed to seek the maximisation of their expected utility (Elbanna and Child, 2007). However, according to Carter, (1971) and Cyert and Marsh (1963), this approach contrasts with the more relativistic conceptions of rationality common in organisation theory.

Furthermore, Pettigrew (2003) also argues that rationality in strategic decision-making processes cannot be properly understood unless we understand its context. This view postulates that the context in which strategic decision rationality takes place is extremely important and has a marked impact (Elbanna and Child, 2007). According to Elbanna and Child (2007), as earlier argued, the term '*context*' can refer to the characteristics of decision-makers, the decision-specific characteristics, features of the external environment and those of the organization itself.

According to Hough and White (2003) any examination of strategic decision rationality that fails to consider these contextual factors is likely to provide an incomplete and perhaps an inaccurate picture. As previously defined, in the context of this research, the *Degree of Rationality* is defined as the extent to which decision-makers collect and analyse information relevant to the decision being made (Dean and Sharfman, 1996).

However, *Bounded Rationality* asserts that decision-makers are intensely rational; '*that is they are goal-oriented and adaptive'* (Jones, 1999) but due to human cognition and emotional architecture, they sometimes *fail* in important decisions (Jones, 1999). Other researchers have also argued that *Bounded Rationality* contends that decision-makers are goal-oriented and recognise the cognitive limitations of decision-makers in endeavouring to accomplish goals

(Jones, 1999). Jones (1999) further postulates that rather than making assumptions about decision–making and modelling the implications mathematically for collective behaviour, *Bounded Rationality* adopts an unambiguous behavioural stance. The behaviour of decision-makers must be examined, whether in the laboratory or in the field (Nutt and Wilson 2010).

Whittington and Mayer (2000) have also argued that previous management research has been '*not culture free but culture blind'*; they therefore recommend that '*time and place*' should be taken into account when investigating managerial practices such as strategic decision-making. As such, the research gap was also informed by a further consideration of the literature which also aims to contribute to the field of strategic decision–making, as whilst there has been a tremendous increase in our knowledge in the field, only a relatively limited amount of this type of research has been conducted on the subject outside the USA and UK (Elbanna and Child, 2007). Moreover, the growing body of research on strategy practice in some emerging economies such as China, the Commonwealth of Independent States (CIS), i.e. Russia and Latin America has not been matched for other regions such as Africa and the Middle East (Nutt, 2011; Hoskisson et. al., 2000; Wright et. al., 2005).

The gap identified is therefore superimposed on the review of the existing studies in the strategic decision-making literature undertaken from 1998 to date in the context of the UNFCCC. Focusing on the African group deviates from other research undertaken in this area.

Consequently, the research aims to contribute to the knowledge of the rationality of decision-making using the theory of *Bounded Rationality* This is explored in the context of the UNFCCC in relation to the succession of the Kyoto Protocol by a group of African Leaders. To date researchers have argued that the challenges of climate change in Africa are further hampered by Africans leaders' inability to make decisions in international settings on world-wide issues such as climate change (Oyenma, 2011; OAU, 2009).

Figure 8 maps the underlying literature themes and linkages for the research whilst Figure 9 combines elements of the themes and the linkages in the strategic decision-making literature which leads to the research gap.

Figures 8 and 9 also depicts the context of the research in terms of the UNFCCC linking the different aspects of the decision-making literature in relation to the UNFCCC, and more specifically COP15 and the African Group leading to the identification of the research gap. Figure 9 is used to further identify the gap in the literature from a decision-making process perspective in terms of context, process and decision outcomes at the organisational level which has not been researched in the literature, also from the perspective of African leaders.

The research therefore, as previously stated aims to address the gap in the literature by answering the research question below:

i. *How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?*

In addition to the main research question, the following additional questions are also explored:

ii. *How did Africa's decision-making strategy emerge in relation to COP15?*
iii. *What was the outcome of the collective decision-making processes by African Leaders?*
iv. *What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?*

As previously stated, this study will employ a qualitative exploratory research based on a unique case study.

In the context of the UNFCCC, researchers have argued that it is clear that the negotiations and decision-making on future commitments under the UNFCCC will be difficult, but not impossible, provided that the negotiations, decision-making process and the final outcomes are fair and reflective of national circumstances (UN, 2009). It is widely accepted that individual African countries are at different stages of development (AU, 2009). If equity is to be taken seriously, a logical and rational approach to emission reductions should ideally be based on countries' respective levels of development and their commitments linked to responsibility, potential and capability to mitigate (AU, 2009).

Furthermore, for developing countries such as Africa, to participate, emission commitments will have to take into account development needs as well as technological and financial resources transferred from the developed world (IISD, 2007).

However, according to the UN (2008), the consensus at this stage seems to be that no commitment will be possible until developed countries demonstrate that they are serious about tackling climate change within the UNFCCC's context of '*common but differentiated responsibilities'*. However, from the researcher's standpoint looking at the recent emission trends, African Leaders and other developing countries have to ensure that their decision-making processes are effective in achieving a successful outcome from the developed countries during the negotiations.

Many researchers and policy practitioners therefore consider that decisions over climate change policy, mitigation strategies and the capacity for adaptation requires co-ordination over multiples levels, involving multiple stakeholders at the local, regional and international level (Daniell et. al., 2011). Notwithstanding, how these processes occur, are maintained and improved over time is a major challenge and worth investigating (Daniell et. al., 2011).

As highlighted in Chapter Two, research on strategic management has been separated into two: '*content research'* and '*process research'* (Elbanna, 2006). However, researchers such as Elbanna (2006) have questioned this distinction, urging future researchers to explore the relationship between process and content. Others have argued that we cannot understand process unless we: -

i. Understand the context in which it takes place (Papadakis, Lioukas, and Chambers, 1998; De Wit and Meyer, 2005); and
ii. Study both formulation and implementation (Pettigrew, 2003).

Similarly, Pettigrew and Whip (1991) argue that process, content and context all have a central role in explaining organisational performance.

In the response to the literature debate, Figure 2 above presents an integrative framework that encompasses the context, the process, the content, and their effects on decision outcomes and organisational performance (Nutt and Wilson, 2010). Figure 8 presents the researcher's underlying themes and linkages in relation to strategic decision-making literature as it relates to the current study. From the description of the broader context, the research is based on the work of Rajagopalan, Rasheed and Datta, 1993; Rajagopalan, Rasheed, Datta and Speitzer, 1997; Papadakis et. al., 1998; Elbanna and Child, 2007, who argue that managerial processes can be explained from a multiplicity of factors relating to the external environment, the internal organisation environment, the characteristic of the members of the top management team (strategic choice perspective), and the decision specific characteristics (decision perspective). These factors are used to identify the gap in the literature by linking the underlying themes and linkages in the literature as illustrated in Figure 9 to identifying the gap. The present research therefore explores the process, the context, and decision outcome in relation to the succession of the Kyoto Protocol by African Member States of the United Nations using the theory of Bounded Rationality.

The organisational performance and implementation of the 'Copenhagen Accord' based on the decision-making processes of African leaders and outcome of COP15, albeit useful, were deemed to be beyond the scope of this study.

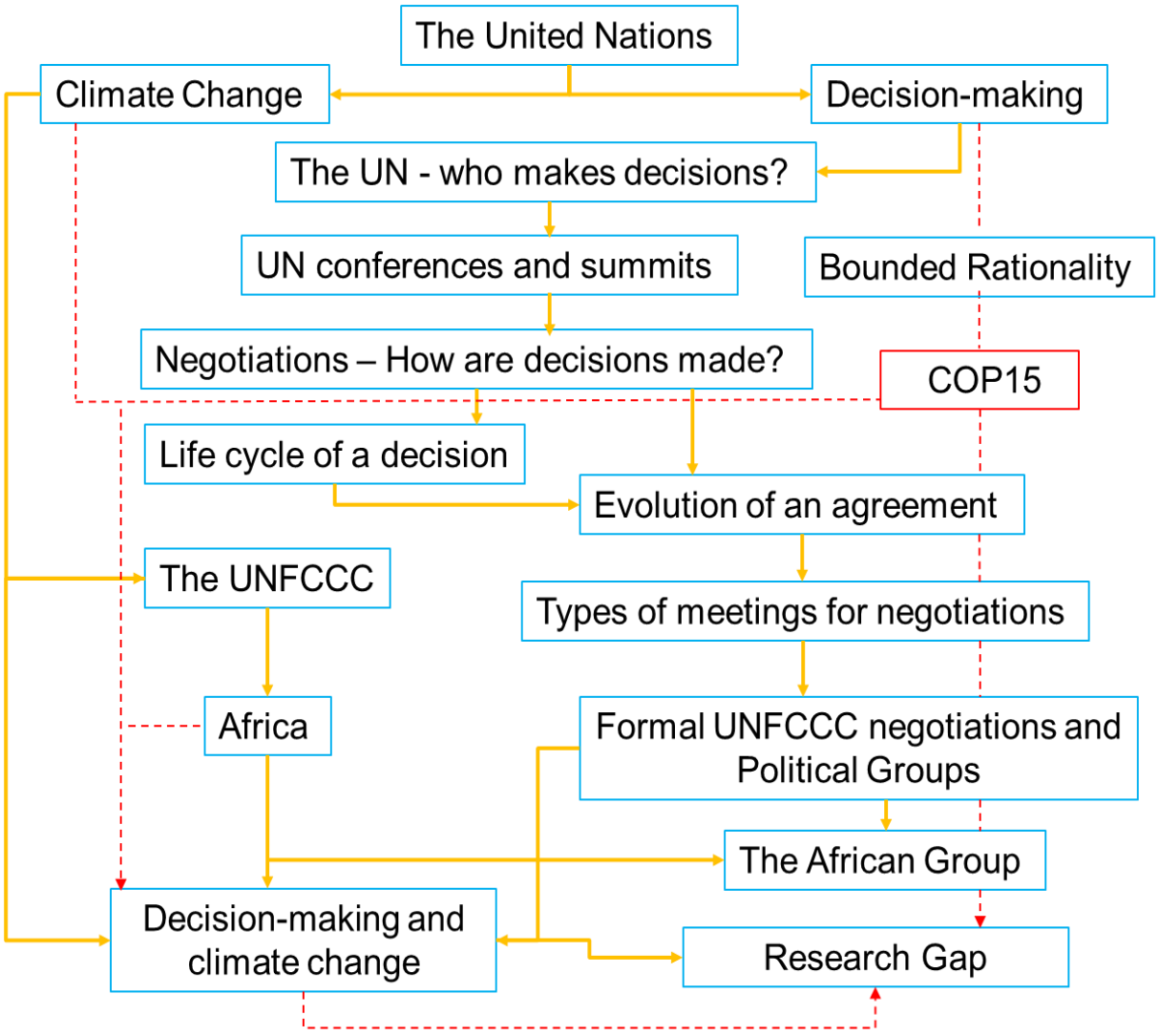
3.7 SUMMARY OF THE CHAPTER

This chapter introduced the UN organisation and, the role of the UN in addressing international issues such as climate change. The challenges posed by climate are then discussed followed by a detailed examination of the UNFCCC to address the issue of climate change. Climate change as it relates to the continent of Africa is also discussed in addition to the various political groupings within the UNFCCC. The decision-making processes for the UNFCCC leading to COP15 attended by members of the African Group and other Parties to

the Convention are also discussed. The chapter concludes with the consolidation of the research gap in the pertinent areas of the literature. More specifically, the study makes an original contribution to decision-making processes using the *Bounded Rationality theory* in the context of climate change. Furthermore, the study provides significant insights about the decision-making processes of African Leaders as this area is under-researched.

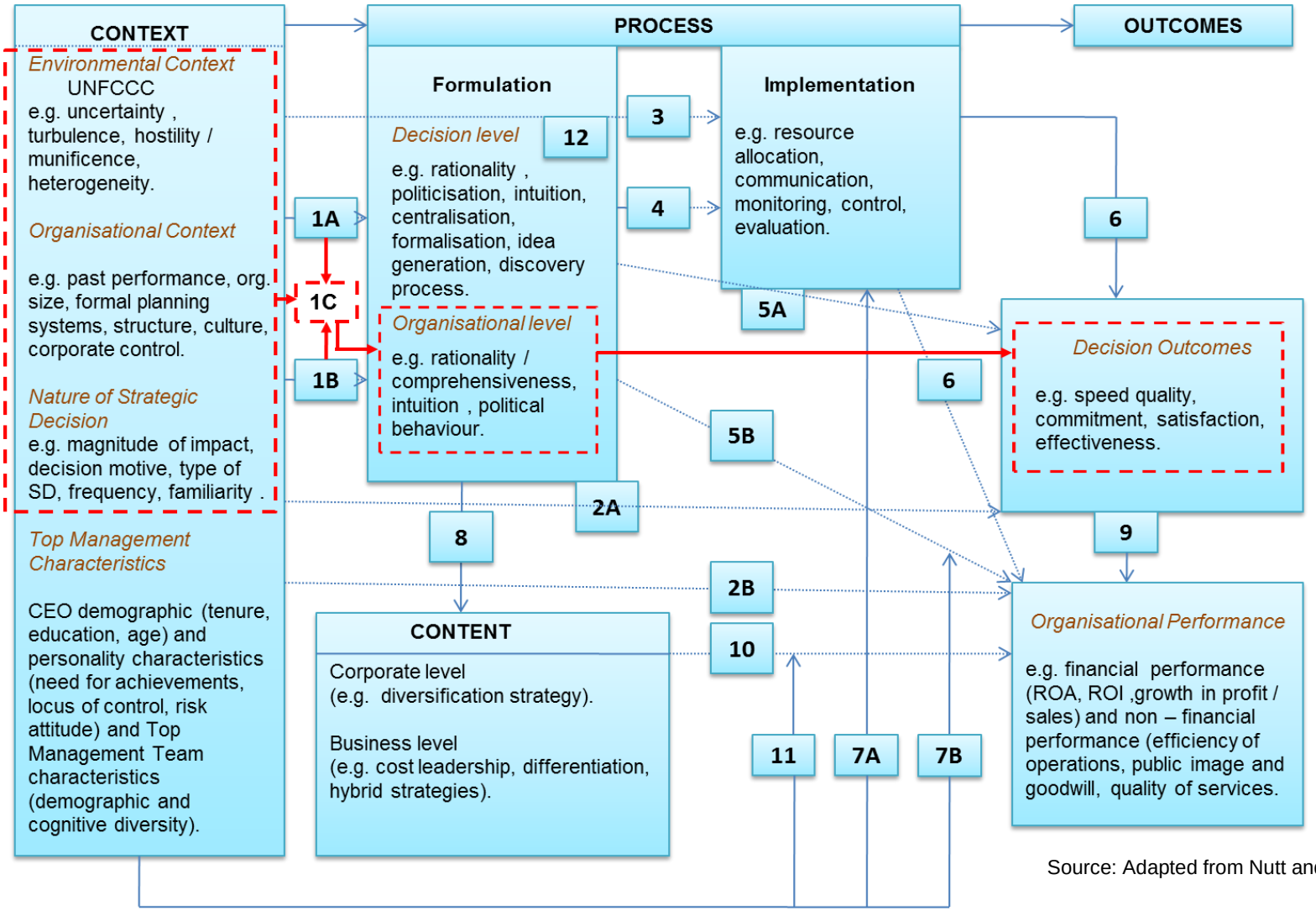
The next chapter presents the research design and methodology, incorporating the research philosophy, the techniques used and the unique case study used to address the research questions.

FIGURE 8 MAP OF UNDERLYING THEMES AND LINKAGES



Source: Developed by the Researcher

FIGURE 9 UNDERLYING THEMES AND LINKAGES SHOWING THE GAP IN THE SDM LITERATURE



Source: Adapted from Nutt and Wilson, 2010

CHAPTER FOUR RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

Having reviewed the pertinent literature in the preceding chapters, this chapter discusses the research philosophy, approach and the research design adopted to address the questions. The role of organisational theory in positioning the theoretical, epistemological and ontological perspectives of the research is presented. From the researcher's perspective, an important aspect of the research is the assumption made about social reality and the way in which we can come to know that reality (Blaikie, 2010). This chapter therefore elaborates on the methodology deployed by the researcher and discusses the justifications for the qualitative method by the use of a single case study. Primary data for the research is collected using semi-structured interviews, focus groups and the researcher's role as a participant-observer. The secondary and tertiary sources of data are also discussed. The chapter addresses the question of credibility, transferability, integrity and dependability and the role of the researcher in research as a participant-observer and the ability to maintain neutrality in the research. Multiple sources of primary and secondary data and interpretations of the phenomenon were gathered to provide richness and multiple insights from the data is also discussed. The ethical issues of the study are also discussed, with the chapter concluding with a summary and an introduction to how the research was conducted in the pre-pilot, pilot and main study.

4.2 THE PHILOSOPHICAL PERSPECTIVE

According to Denscombe (2003), a '*phenomenon*' is something that is known through our senses and, as an approach to social research, '*phenomenology*' focuses on how life is experienced. Phenomenological research focuses on the need to understand how humans view themselves and the world around them (Robson, 2011). From the researcher's perspective, the researcher is considered inseparable from assumptions and preconceptions about the phenomenon under study (Robson, 2011). Phenomenology emphasises subjectivity rather than objectivity, description more than analysis, interpretation, rather than measurement, agency rather than structure (Blaikie, 2010). As previously stated, the research explores the decision-making process of a group of African Leaders in relation to the succession of the Kyoto Protocol under the UNFCCC. The discussion below therefore centres on the research *paradigm* used to investigate the research phenomenon.

Blaikie (2010) contends that the identification of a philosophical perspective is important in the sense that it explores the researcher's assumptions about the nature of phenomena *(Ontology)* and the way in which knowledge can be acquired *(Epistemology).* Blaikie (2007) defines these two concepts as follows:

> …"*Ontology refers to the claims or assumptions that a particular approach to social enquiry makes about the nature of social reality – claims about what exists, what it looks like, what units it is made up from, and how these units interact with each other'* (Blaikie, 2007:12).

> …"*Epistemology, on the other hand, refers to or is concerned with the claims or assumptions made about the way in which it is possible to gain knowledge of reality, how what exists may be known, what can be known and what criteria must be satisfied in order to be described as knowledge'*(Blaikie, 2007:12).

Similarly, Collis and Hussey (2009) also discuss assumptions of the main paradigms which

> …"*refers to the progress of scientific practice based on people's philosophy and assumptions about the world and nature of knowledge'* (Collis and Hussey, 2009:35).

Scholars identify three assumptions namely: ontological, epistemological and axiology. The '*ontological'* assumption focuses on the nature of reality; '*epistemology*' on what is accepted as valid knowledge, i.e. the relationship between the researcher and the phenomenon being researched; and '*axiology'* which defines the *researcher's view of the values in the research* (Saunders et. al., 2011:119).

Each philosophical perspective has its own ontological and epistemological claims and proposes a particular approach to social enquiry as shown in Table 4 below.

TABLE 4 ASSUMPTIONS OF THE MAIN PARADIGMS

Assumption	Question	Positivistic	Phenomenological
		(Quantitative)	*(Qualitative)*
Ontological	What is the nature of reality?	Reality is the objective and singular apart from the researcher.	Reality is subjective and multiple as seen by participants in a study.
Epistemological	What is the relationship of the researcher to the researched?	The researcher is independent from what is being researched	The researcher interacts with what is being researched.
Axiological	What is the role of values?	Value-free and unbiased.	Value-laden and biased.

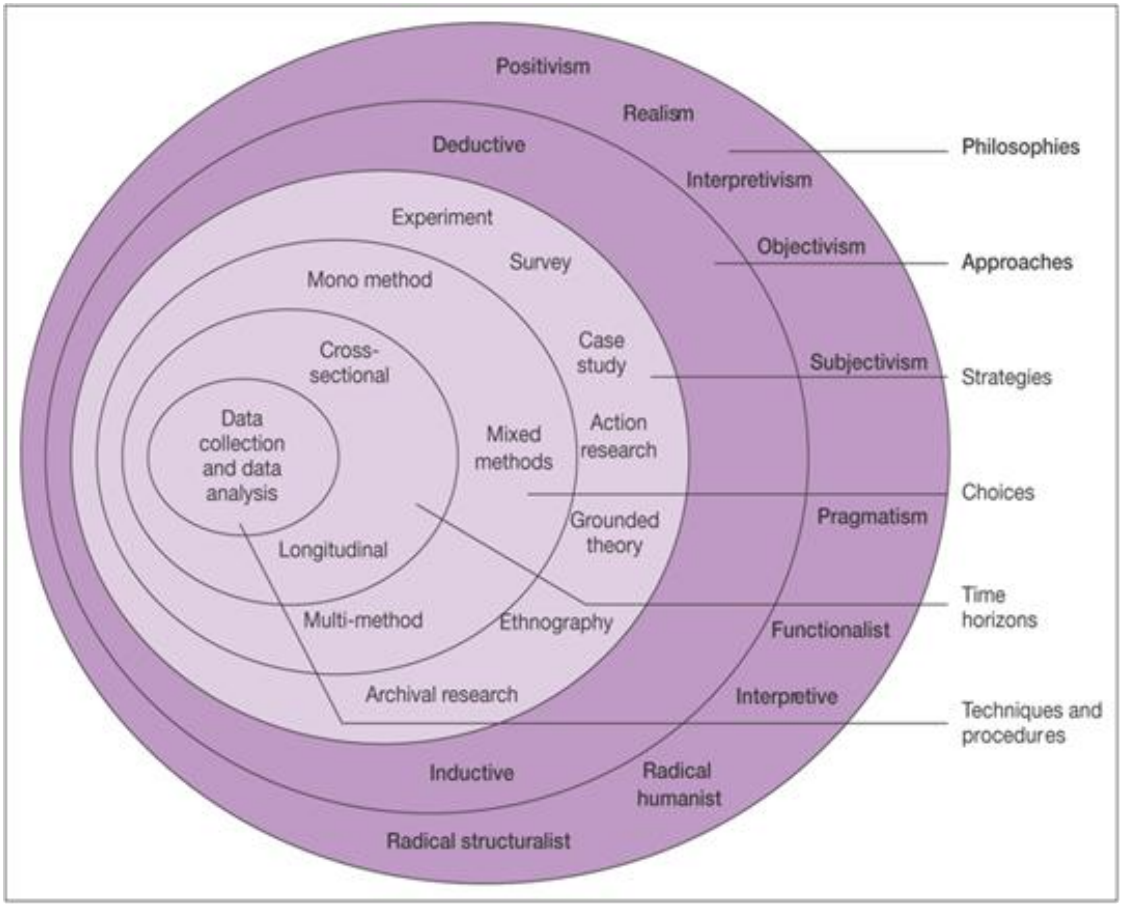
Source: Adapted for the research from Bryman 2012

According to Easterby-Smith et. al., (2002) there are three important reasons for the researcher to choose a research philosophy. Firstly, the choice of philosophy enables the researcher to have an informed decision about the research design. Secondly, it enables the choice of research strategies and the most suitable choice for the researcher and finally, the

knowledge of the various research traditions allows the researcher to adopt the design of the research to subjugate any potential constraints.

The research '*onion'* illustrated in Figure 10 below provides an overview of the main research philosophies, approaches and strategies that can be adopted when conducting research (Saunders, 2009). It also depicts the choice for data collection, i.e. qualitative or quantitative or a combination i.e. mixed methods, the time horizons and the techniques and procedures.

FIGURE 10 THE RESEARCH ONION



Source: Saunders, et. al.,. (2009)

It is not the intention of the researcher to discuss each of the philosophies, but to present the researcher's choice of research philosophy, research strategy, methodology, data collection and data analysis techniques used. These are discussed in depth in the sections below.

Notwithstanding, from the researchers' perspective, the ontological and epistemological classifications above give the notion that research and researchers can be placed into distinct categories; however, this is not necessarily the case. The reality is that a particular research question rarely falls into one philosophical domain as the onion suggests (Saunders et. al., 2009). Explicitly or implicitly, social science researchers usually work within a context of a particular set of theoretical ideas and ontological and epistemological assumptions (Blaikie,

2010). As such, an overview of the philosophical perspectives of the researcher is given in order to understand the assumptions of the researcher and to justify the selected research philosophy and research design.

4.2.1 RESEARCH PARADIGM - A REALIST APPROACH

The researcher's ontological perspective is one of '*Realism'*. This approach was adopted by the researcher as it is conducted in a more natural setting involving the collection of situational or contextual data. Realism also incorporates methods to elicit participants' way of knowing and seeing reality; as such, research designs provide opportunities for discovery (emergent knowledge) as opposed to testing an *a priori* hypothesis (Cohen and Crabtree, 2006). Furthermore, whilst *realism* is a relatively recent philosophical perspective with its own ontology and epistemology, it is increasingly becoming valued today in business management research. Furthermore, there is a growing dissatisfaction with the information produced by quantitative research (Crepeda and Martins, 2006).

According to Blaikie (2007):

> …*"While sharing positivism's desire for producing causal explanations and interpretism's views on the nature of social reality, realism argues for a view of science that is different from either of these approaches'* (Blaikie, 2007:63).

Outhwaite (1987) explains *'Realism'* as common sense ontology, in the sense that it takes seriously the existence of things, structures and mechanisms revealed by the sciences at different levels of reality. This view is also held by Philips (1987) who describes realism as:

> …*"The view that entities exist independently of being perceived, or independently of our theories about them'* (Philips, 1987:133).

In essence, reality is whatever is in the universe that causes the phenomena we perceive with our senses. However, these views have been largely ignored by some researchers and there are on-going debates over realism that remains unresolved (Leplin, 1984).

In the social sciences, the most prominent manifestation of realism is '*critical realis*t' based on the work of Roy Bhaskar (1978, 1989, 2011). *Critical realism*, as described by Bhaskar (1989a), aspires to explain the relationship between human activity and social structures. Bhaskar states:

> …*"the existence of social structure is a necessary condition for any human activity'* (Bhaskar 1989a:17).

The researcher adopts the basic position based on Bhaskar's work and additional insights and alternative perspectives for using *Realism* in qualitative research, as the use of the theory of *Bounded Rationality* has leaned more towards quantitative techniques. These include the

works of Humberman and Miles (1985); Miles and Huberman (1994); Hammersley (1992, 1998, 2002, 2009); Pawson, (2006).

From an epistemological perspective, *Realism* is '*methodologically open*' in the sense that it does not define a method. It is '*concerned with developing methods appropriate to the particular subject matter of the social sciences*' (Blaikie, 2007:78).

Furthermore, according to Maxwell (2012), although '*a substantial amount of qualitative research is implicitly realist in its assumptions and methods'* there have been few clearly defined statements of realist approaches to qualitative research. However, according to Hammersley, (1992):

> …''*an empirical world exists as something available for observation, study and analysis. It stands over against the scientific observer, with a character that has to be dug out and established through observation, study and analysis…..'Reality' for empirical science only exists in the empirical world' (*Hammersley, 1992:21)

Hence, '*Realism'* is selected for this study based on the nature of the problem to be addressed and in line with the research questions. Furthermore, from the researcher's perspective, a realist view has no problem with a flexible research design or the use of a qualitative design which is also stated by Robson (2011). The following section proceeds to justify the researcher's choice of the qualitative methodology.

4.3 RESEARCH METHODOLOGY

A research method is a strategy of enquiry, which moves from the underlying philosophical assumptions to research designs and data collection (Myers and Avison, 2002). Focusing on the genre of the methodology, there are two main research approaches which can be used by the researcher; 'quantitative' or 'qualitative' (Bryman, 2012:712) .

Given the nature of the problem identified by this study and in line with the research questions, the selected research approach is deemed appropriate. Qualitative research acknowledges and celebrates subjectivity and the specificity of the context. It involves the examination and reflection of perceptions in order to gain an understanding of social and human activities. In contrast, quantitative research focuses mostly on measurement of constructs and ideas which it considers that can be measured objectively and independently of context. (Collis and Hussey, 2003).

Qualitative research generally examines people's words or actions in narrative or descriptive ways more closely to represent the experiences of the people involved, focusing on understanding and meaning, whilst '*Quantitative Research'* converts observation into discreet

units that can be compared to other units by statistical analysis, focusing on explanation, prediction and proof. (Bryman, 2012),

Quantitative methodology presumes clearly defined constructs and specific models. For this reason, it clearly does not fit the aims of the present study, which was mostly exploratory with only a vague framework of a priori expectations. Hence due to the nature of the research problem, an exploratory case study approach is appropriate. It is in line with the research question which aims to find out what are the influencing factors which determine the decision-making processes adopted by a group of African leaders.

Quantitative and qualitative research are different conceptually and methodologically as they employ different forms of language in the specific approach to design issues (Saunders et. al., 2009). According to Denzin and Lincoln (2011) the language of qualitative methods is much more interpretive as the researcher sets about the task of explaining how people create meaning in social situations. The quantitative approach on the other hand:

> …*"provides a wealth of facts about phenomena and involves statistical analysis'* (Ticehurst and Veal 2000:20).

The quantitative approach was not considered suitable for the research, due to the exploratory and descriptive nature of the research. To substantiate, the choice of approach adopted by the researcher, Table 4 below highlights the differences between quantitative and qualitative approach.

TABLE 4 DIFFERENCES BETWEEN THE QUALITATIVE AND QUANTITATIVE APPROACH

	Qualitative Approach	**Quantitative Approach**
Objective	To gain a qualitative understanding of the underlying reasons and motivations.	To quantify the data and generalise the results from the sample to the population of interest.
Sample	Relatively small numbers	Large numbers.
Data Collection	Unstructured or semi-structured forms of data collection.	Structured forms of data collection.
Data Analysis	No statistical analysis	Statistical analysis.
Outcome	Develop an initial understanding.	Recommend a final course of action.

Source: Adapted for the research from Bryman 2012

Although there are differences between the two types of approaches, Stake (2010) argues that whether as researchers we are qualitative or quantitative, we need to search for causes, influences, preconditions, and correspondences. Furthermore:

> …*"a researcher's findings and stories can enlighten those seeking to understand the history or the problem or seeking to change the policy. But the data, however analysed, do not themselves resolve the problem. It is the*

> *interpretation of the data, of the observations and measurement that will stand, not as proof but as persuasions of one meaning more than the other'* (Stake, 2010:25).

Thus, whilst the quantitative approach was considered, based on the phenomenon of the research being investigated and the research questions, the qualitative approach provided the most appropriate framework for this research. Moreover, this approach allowed the researcher to acquire a deeper understanding of the nature of the problem and make sense of the data through richer insights (Saunders et. al., 2009). Section 4.3.1 below gives the researchers justification for the qualitative approach in more depth.

4.3.1 JUSTIFICATION FOR THE QUALITATIVE APPROACH

Qualitative research is defined in many ways. Denzin and Lincoln (2005) define the characteristics of qualitative research as:

> *…''Multi-method in focus, involving an interpretive, naturalistic approach to its subject matter'* (Denzin and Lincoln, 2005:249).

This means that qualitative researchers '*study things in their natural settings, attempting to make sense or interpret phenomena in terms of the meaning people bring to them*' (Denzin and Lincoln, 2005:249).

> *…''Qualitative research involves the study and collection of a variety of empirical materials; case study, personal experience, introspective, life study, interview, observational, historical, interactive and visual texts that describe routine and problematic moments and meanings in individuals lives'* (Denzin and Lincoln, 2005:253)

Furthermore, Zikmund (2000) ascertains that qualitative research is based not on numbers, but on words and observations; stories, visual portrayals, meaningful characterisation interpretations and other expressive descriptions. This view is also supported by Silverman (2010) who states that qualitative research employs methods that look for quality, including feelings, perceptions, viewpoints, meanings, relationships, stories and dynamic changing perspectives. Miles and Huberman (1994) also state that qualitative research is essentially an investigative process that focuses on words rather than on the numbers that are important to quantitative research.

According to Bogdan and Biklen (1982) there are a number of common characteristics of qualitative research which are applicable in the current study.

i. *Qualitative research has the natural setting as the direct source of data, and the research is the key instrument.*

The study was conducted at COP15, where the decision-making process of African Leaders in relation to the succession of the Kyoto Protocol was observed. The decision was being made in the '*natural setting'* of the UN Climate Change Conference.

> ii. *The nature of qualitative research is descriptive. The three major types of research are historical, experimental, and descriptive. Zikmund (2000) describes the characteristics of descriptive research as a population or phenomenon which seeks to determine the answers to who, what, when, where and how questions.*

The decision-making processes were descriptive in nature and the research questions required answers to '*how'* and *'what'* questions.

> iii. *Qualitative researchers are more interested in how people negotiate meaning and how they come to interpret the events that they are looking at in terms of the results of such interactions.*

The research explores how a group of African Leaders make a common decision in relation to the succession of the Kyoto Protocol utilising the theory of *Bounded Rationality.* The African Leaders attach meaning to the issue of climate change and make decisions through a number of decision-making processes.

> iv. *The qualitative researcher is primarily concerned with meaning. Qualitative researchers believe in the uniqueness of each case based on the belief in the importance of the individual perspectives of each participant*' (Bodgan and Biklen, 1982:24).

The views of African Leaders are sought to address the research questions through semi-structured interviews, focus groups and participant observation. The primary data collection methods are discussed in Section 4.7 below.

Furthermore, some researchers argue that qualitative research methods are not confined to the study of personal meaning and public discourse alone (Iosifides, 2011). Qualitative methods are seen as a powerful means for the study of the character and nature of social relations of all kinds, from social relationships amongst individuals, to relations among social positions, ideational and discursive elements, and structural with cultural properties (Iosifides, 2011). In essence, qualitative methods are powerful means for the different causal powers of social objects along with their constraining and enabling effect to be explored in reality and can more easily be adapted to pursue alternative lines of inquiry in search for retroductive explanations rather than the measurement of predetermined variables (McEvoy and Richards, 2006).

In essence, qualitative research provides rich and detailed information about activities, events, occurrences, and behaviour that allows the description, definition and a better understanding of actions, meanings, problems and processes in their social context (Finch, 1986).

The research specifies the data required to address the research questions, designates the information and data gathering design and methodology, provides interpretations of the results and presents arguments, discussions and an analysis of the case. In addition, the use of multiple sources of data also allowed the researcher to address the various criticisms associated with qualitative research in terms of the reliability and validity of the results.

The conclusion that can be drawn from the above is that qualitative research is suitable for the study.

4.4 RESEARCH DESIGN

A research design is the logic that links the data to be collected to the initial question of study (Yin, 2003). The research design is an integrated statement of and the justification for the technical decisions involved in planning the research project (Blaikie, 2007). In other words, the research design is the map the researcher uses during the process of the compilation, examination and interpretation of data. Furthermore, Robson (2011) asserts that:

> …"*the research design is concerned with turning research questions into projects…and identifies three types: fixed, flexible or multi-strategy...Fixed Design involves tight pre-specification before the research reaches the main collection stage. Data is always in the form of numbers and is commonly referred to as a quantitative strategy. A Flexible Design evolves during data collection. Data is presented in a non-numerical format usually in the form of words and is often referred to as a 'qualitative strategy'* (Robson, 2011:47).

The final research design classified by Robson (2011) is the '*Multi-strategy Design'* and combines substantial elements of both the fixed and flexible design. As detailed in Section 4.3 above, the strategy used for this research is the qualitative approach based on a '*Flexible Design'* (Robson, 2011).

Researchers argue that questions asking '*how many"*? or '*how much"*? or '*who'* or '*where*' suggest the use of a non-experimental fixed strategy, such as a survey (Saunders, 2009; Robson, 2011). '*What*' questions are concerned with '*what is going on here*?' and tend to lend themselves to some form of flexible design study (Robson, 2011; Yin,1994) and state that '*how*' and *'why'* questions are more difficult to address and tend to indicate a flexible design giving further justification to the design adopted for this study (Robson, 2011). In essence the research questions form the basis of the research design adopted and this is discussed in more depth below.

Hamilton and Ives (1992) state that:

> …"*the key to good research, though, is not just choosing the right research strategy, but in asking the right questions and picking the most powerful*

> *method(s) for answering those questions given the objectives of the research and other salient factors*' (Hamilton and Ives, 1992:57).

Yin (1994) also postulates that '*how' and 'why'* questions are more appropriate to the use of case studies. '*How'* questions are usually associated with describing relationships (previously identified by answering a '*what*' question). On the other hand, *'why'* questions tend to explain the reasons why those relationships exist (Whetten, 1989; Yin, 1994, 2009). Blaikie (2010) contends that there are three types of research questions which can be asked '*what', 'why'* and *'how'*. Blaikie (2010) further argues that '*how'* questions are concerned with interventions. As previously stated, the main research question is:

- *'How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?'*

The research question is exploratory in nature and seeks to understand how a group of African Leaders make a common decision on the issue of climate change as it relates to the succession of the Kyoto Protocol for the second commitment period.

The additional sub-questions in relation to this research are:

- *How did Africa's decision-making strategy emerge in relation to COP15?*
- *What was the outcome of the collective decision-making processes by African Leaders at COP15?*
- *What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?*

The underlying aims and rationale of this research reflect the general recognition that research of this nature, as previously stated, is best conducted using the qualitative approach. Intrinsically, this approach was considered the most appropriate for this research in order to preserve the richness of the data collected and to allow the development of new themes and concepts by gaining a deeper understanding of what lies underneath the phenomena. Through exploration and descriptions, an improved understanding of how African Leaders made a common decision - *The African Common Position* on the succession to the Kyoto Protocol at COP15 in Copenhagen, Denmark was achieved. The decision-making processes followed and the ultimate outcome based on the theory of Bounded Rationality was investigated.

Table 5 below gives the justifications for questions for the semi-structured interviews and focus groups. The links of these questions with the main research question and sub-questions are identified. The relevant and specific literature areas these questions address in relation to the research, more specifically, the research gap, are also identified.

The questions were developed through various interactions and reviews by peers, participants during the pilot and the researcher's academic supervisor. The questions were carefully worded and kept simple, to ensure they were easy to understand by participants.

TABLE 5 JUSTIFICATIONS FOR THE INTERVIEWS AND FOCUS GROUPS QUESTIONS

	Semi-structured and Focus Group Questions	**Research Questions addressed**	**Relevant Literature Areas and Research Gap**
1	How does the decision-making process start within the African Group on Climate Change?	*i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?* *ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This question relates to the focus of the research in understanding the key literature areas used to identify the research gap. Decision-making, strategic decision-making and decision-making processes are the pertinent literature areas. The concept of decision-making and the theory of *Bounded Rationality* is used in the context of the UN as it relates to the UNFCCC and in the context of African Leaders both of which are areas in the literature not adequately researched. The question aims to explore whether there is an understanding of the decision-making processes within the African Group on climate change.
2	Can you describe the decision-making process of the African Group under the UNFCCC?	*i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality*? *ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This question is used to explore in more depth if there is a deep understanding and knowledge of the decision-making processes in relation to the UNFCCC by African Leaders.

No	**Semi-structured and Focus Group Questions**	**Research Questions addressed**	**Relevant Literature Areas and Research Gap**
3	How do the Leaders get involved? What structures are used to make decisions on climate change by the African Leaders under the UNFCCC in relation to the Kyoto Protocol?	*i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?* *ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This question is used to explore the ownership levels of the decision-making process due to the significance of the problem at a national and global level.
4	What do you consider to be the key characteristics that influence decisions in relation to climate change?	*i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?*	Is there an understanding of the concept of climate change and its relationship to policy development which is fundamental to address the impacts of climate change from a decision-making perspective?
5	What do you view as the particular needs of Africa to address climate change in the decision-making process?	*ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This question is to explore whether African Leaders know the priorities in terms of climate change impacts and the outcome of the decision-making processes in relation to the succession of the Kyoto Protocol.

No	**Semi-structured and Focus Group Questions**	**Research Questions addressed**	**Relevant Literature Areas and Research Gap**
6	What structures are used to make decisions on climate change by the African Leaders under the UNFCCC in relation to the Kyoto Protocol?	*ii. How did Africa's decision-making strategy emerge in relation to COP15?*	To explore whether there is an in-depth understanding of the decision-making processes in relation to the succession of the Kyoto Protocol in achieving a Common African Position.
7	Do you feel there is sufficient leadership buy-in at the strategic level within the continent of Africa?	*i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?* *ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This is used to explore leadership commitment at the strategic level of decision-making.
8	Do you feel the decisions made by the African Group follow a process?	*ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This is used to explore the process by which a decision is made and relate to back to the literature, more specifically the concept of Bounded Rationality in addressing the research gap.
9	Have you encountered any problem or problems during the decision-making process?	*ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This question is used to explore what recommendation can be made from the research in relation to decision-making processes if applicable.
10	What do you view to be the main concerns of the African Group?	*ii. How did Africa's decision-making strategy emerge in relation to COP15?*	The question aims to explore the understanding of the decision-making process from the perspective of the African Group and whether there is a common understanding given the African Common position.

	Semi-structured and Focus Group Questions	Research Questions addressed	Relevant Literature Areas and Research Gap
11	How many Conference of Party meetings under the United Nations Framework Convention on Climate Change have you attended?	*i. How did Africa's decision-making strategy emerge in relation to COP15?*	This question is used to gauge the understanding levels of the decision-making process by Leaders. The likelihood is the greater the attendance at UNFCCC meetings the greater the knowledge and awareness of the decision-making process.
12	How many African Group meeting(s) at COP have you attended?	*ii. How did Africa's decision-making strategy emerge in relation to COP15?*	This question is also used to gauge the understanding of the decision-making process by African Leaders relating to the UNFCCC AWG-KP process.
13	In light of climate change, are there any challenges you have observed with the decision-making process of the African Group?	*i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?*	This question is used to understand the dynamics of the African Group.
14	Can you see the relevance between the negotiation process and the eventual decision(s) taken?	*iii. What was the outcome of the collective decision-making processes by African Leaders at COP15?*	This question is used to answer the phenomena in more depth in terms of whether the decision(s) made were rational.
15	What is the relationship between the negotiation process and the eventual decision made by the group?	*iii What was the outcome of the collective decision-making processes by African Leaders at COP15?*	This question is used to answer the phenomenon further in relation to *Bounded Rationality* to ascertain the arguments presented or refute them given the environment and context of the decision in relation to the succession of the Kyoto Protocol.

No	**Semi-structured and Focus Group Questions**	**Research Questions addressed**	**Relevant Literature Areas and Research Gap**
16	Do you think the decision-making process by the African Group could be improved?	*iv. What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?*	To identify and substantiate recommendations emerging from the study.
17	Are there ways in which the decision-making process can be improved?	*iv. What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?*	To identify and substantiate recommendations emerging from the study, and to develop best practice.

Source: Compiled by the Researcher

4.5 JUSTIFICATION FOR CASE STUDY METHOD, THE RESEARCHER'S VIEW

For an exploratory research study of this nature, according to Yin (1994) the case study strategy approach is the most appropriate. This section gives the researcher's justification for the '*case study'* which, adopting Yin's (1994) definition is:

> *…"an empirical enquiry that investigates a contemporary phenomenon within its real life context: when the boundaries between the phenomenon and context are not clearly evident; and in which multiple sources of evidence are used*' (Yin, 1994:17).

A case study can be of particular value in applied social sciences where research often aims to provide practitioners with tools. The ability to study a problem in depth, place it in a context and understand the stages in the process is beneficial (Gummesson, 2000; Yin, 1994).

A case study is considered appropriate for this research topic as it is an in-depth study aimed at describing the decision-making process of African Leaders prior to and during the United Nations historic Climate Change Conference in Copenhagen, Denmark in December 2009.The study explores the answers to the research questions and puts forward policy and practical recommendations discussed in Chapter Nine.

Yin (1994) views case studies as the preferred strategy when '*how'* and *'why'* questions are postured, and situations where the researcher has little control over events; and when the focus is on a contemporary occurrence within a real-life context. This research problem is a '*how*' question and the contemporary phenomenon is climate change which affects the whole world.

Furthermore, case studies are often described as exploratory research (Hussey and Hussey, 1997). Zikmund's (2000) definition of a case study is:

> …''*an exploratory research technique that intensively investigates one or few situations similar to the researcher's problem situation*' (Zikmund's 2000:12).

Case study research has also been defined as: -

> *…"An extensive examination of a single instance of a phenomenon of interest and is an example of a phenomenological methodology' (*Hussey and Hussey, 1997:29).
>
> *…"The boundaries between the phenomenon and context are unclear'*(Yin, 1994:31).
>
> *…"A methodology based on interviews that is used in a post-graduate thesis involving a body of knowledge'* (Perry and Coote, 1994:122).

The various definitions cited are applicable to the current research study.

4.5.1 SINGLE VS. MULTIPLE CASE STUDY RESEARCH

According to Bryman (2008) the basic case study entails the detailed and intensive analysis of a single case and is an object of interest in its own right where the researcher aims to provide an in-depth elucidation of it.

Robert Yin is the best known exponent of case method in the social sciences (Easterby-Smith et. al.,, 2012) and, distinguishes five types of case studies as a rationale for single case design:

i. *'The critical case – where the researcher has a well-developed theory, and the case is chosen on the grounds that it will allow a better understanding of the circumstances in which the hypothesis will and will not hold.*
ii. *The extreme or unique case – where a case has an intrinsic interest that makes it essentially unique.*
iii. *The representative or typical case – where it is the objective to capture the circumstances and conditions of an everyday or commonplace situation.*
iv. *The revelatory case – where the investigator has an opportunity to observe and analyse a phenomenon previously inaccessible to scientific investigation.*
v. *The longitudinal case – where a case may be chosen because it affords the opportunity to be investigated at two or more junctures and also because it can be studied over time'* (Bryman, 2012:70).

Based on Yin's (2003) classification above, the case under study is a unique and revelatory case. *'It is also a detailed and intensive analysis of a single case*' (Bryman, 2012:709). Furthermore, Yin (2009) also states that the single case study research is applicable when the case is critical or unique or where the researcher is able to access a previously remote phenomenon.

Yin (2003) cited in Baxter and Jack (2008:548) in his earlier work, also uses the term '*descriptive*' to classify case study design which is defined as:

> '…*a type of case used to describe an intervention or phenomenon and the real life context in which it occurred'*.

This term is closely linked to the revelatory case, which is applicable to the research in that another rationale for selecting the single-case design rather than the multiple-case design is that the researcher has access to a situation previously inaccessible to scientific observation. The case is important to conduct due to the fact that the descriptive information alone will be revelatory (Yin, 2003) which is applicable in the decision making process of African leaders in relation to COP15. Furthermore, the aim of the research was not to test theory using hypotheses as in the critical case.

Stake (2006) uses three terms to describe case studies, intrinsic, instrumental and collective. The intrinsic case is one in which the researcher has a particular interest in the case. Stake (2006) argues that the particularity and ordinariness of the case makes itself of interest, The aim of the researcher is to better understand the case and not to understand some abstract construct or generic phenomenon or build theory (Stake, 2006). This is similar to Yin's unique case and revelatory case classifications.

The *Instrumental* and *Collective* cases as defined by Stake (2006) are not considered to be applicable to this research, as the *Instrumental* case is used to accomplish something other than understanding a particular situation. It provides insight into an issue or helps to refine a theory, where the case is of secondary interest (Stake, 2006). Collective case studies are similar in nature to the Instrumental case but relates to more than one case being examined.

Furthermore, Pettigrew (1990: pp. 275 - 277) suggests four useful guidelines for selecting cases to study decision-making processes. Pettigrew asserts that the researcher should:

1. 'Go for extreme situations, critical incidents and social dramas.' By choosing cases that are unusual, critically important, or highly visible, researchers select cases in which the process is 'transparently observable'.

2. 'Go for polar types.' Choose cases that seem very different in terms of the processes under study. For example, researchers might compare successful and unsuccessful decision processes.

3. 'Go for high experience levels of the phenomena under study'. Choose cases that have a long track record of experience with a process.

4. 'Go for more informed choice of sites and increase the probabilities of negotiating access.' Selecting a case for one's sample is fruitless if one cannot obtain cooperation.

Based on Pettigrew's justification, guidelines 1, 3 and 4 are applicable to the current study. The case is unique, extreme, critically important to the world and unusual, given the unprecedented number of world leaders gathering together. The conference also received immense international media coverage.

The UNFCCC as a decision-making body is the main convention for climate change decision-making within the UN and came into force in March 1994 and therefore the process for

decision-making in relation to climate change is well established with the UN as an organisation.

Finally, the researchers role as a participant observer in the capacity of the Special Advisor to the Minister for Environment, enabled easier access to African leaders to be interviewed. The researchers role also meant that most interviewees were keen to assist. Resistance was met in some cases in the conducting the interview with a tape recorder rather than securing access to conduct the interview.

As previously stated, the research explores how a common decision was made by a group of African Leaders in relation to the succession of the Kyoto Protocol under the United Nations Framework Convention on Climate Change. The data for this research was gathered at COP15 from 7th to 15th December, 2009. This event was recorded as a historic and unique worldwide landmark (UN, 2009). The revelatory uniqueness of this single and intrinsic case study is discussed in more depth in Chapter Six, Section 6.2. The following sections will elaborate on the case study strategy, how data was collected, and how it was analysed.

4.5.2 The Integrity of Case Study Research

Numerous frameworks have been developed to appraise the rigor or evaluate the trustworthiness of qualitative data (Guba, 1981; Lincoln and Guba, 1985) in addition, strategies for establishing credibility, transferability, dependability and confirmability have been covered extensively in the literature (Bryman, 2012, Easterby-smith et. al., 2012, Yin, 2009; Denzin and Lincoln, 2005). This section therefore addresses how the researcher ensured the trustworthiness and the validity of the data.

Firstly, in designing and implementing the case study, the researcher undertook several basic steps to enhance the design of the study to ensure that readers of the research could assess the trustworthiness and validity of the research.

The researcher therefore ensured that:

i. The case study research questions were clearly written and the questions substantiated;
ii. The case design was appropriate to address the research questions;
iii. The design of the research in relation to the process and procedures were undertaken prior to the main study using a pre-pilot and pilot;
iv. Attention was given to ensure there were no ethical issues in relation to the collection of the data, i.e participants were not coerced into taking part.
v. The process used to collect the data was clearly documented;
vi. The data was analysed using the appropriate method.
vii. The findings of the research were clearly reported.

Researchers have argued that reliability and validity are essential criteria in stabling the quality of quantitative research (Bryman, 2012). However, there have been discussions amongst scholars with regards to their applicability to qualitative research (Bryman, 2012). For example, Mason (1996:21) contends that reliability, validity, and generalisability are different kinds of measures of the quality, rigour and wider potential of the research which are achieved through specific methodological and disciplinary conventions and principles.

Notwithstanding, researchers have argued that one of the standard criticisms of the case study is that the research findings cannot be generalised (Bryman, 2008). Exponents of case study research, however, dismiss suggestions that the evidence presented by case studies is limited because it has restricted external validity by arguing that it is not the purpose of the research design to generalise to other cases or to populations.

Other researchers have therefore argued that qualitative research should be evaluated according to different criteria (Lincoln and Guba, 1995; Guba and Lincoln, 1994, Yardley, 2000). As such, Lincoln and Guba (1995) proposed an alternative way of assessing qualitative research in terms of reliability and validity. Two primary criteria were proposed Trustworthiness and authenticity (Bryman, 2012); According to Bryman (2012:394) Trustworthiness is made up of four criteria:

- Credibility
- Transferability
- Dependability
- Confirmability

Peck (1977) suggests a fifth criterion, integrity, following Wallender and Beck (1989). The researcher uses the above criteria to ensure the trustworthiness of the case as the researcher view is that, these criteria are considered appropriate to this research.

As previously discussed, case studies are tailor-made for exploring new processes of behaviour (Baltry and Amaratunga, 2002). Notwithstanding, case studies have also been criticised in academic literature due to the problems of reliability and generalisability (Miles, 1979).

Moreover, careful design can avoid and reduce the criticism directed at case study research based on arguments presented for the lack of methodological rigour and the possibility of bias (Bryman, 2012; Denzin and Lincoln, 2011; Yin, 2003, 2009).

A number of different data gathering methods and data sources have therefore been included in the research design, in order to improve the richness of the data and the reliability of the research. Sekaran (1992) contends that:

> …''*because almost all data collection methods have some bias associated with them, collecting data through multi-methods and from multi-sources lends 'rigour to research*'' (Sekaran, 1992:74).

The triangulation of data sources was one of the strategies used to explore the phenomenon from different perspectives. The researcher, collected data by several methods, i.e. semi-structured interviews, focus groups and participant observation. Documentary evidence was also used in the form of technical reports, books, and journals, bulletins (ENB and TWN) national newspapers to mention a few. This is discussed in more depth in Section 4.7.

The data collected were also used as comparisons to enhance the data quality in terms of the output of the research findings. For example, the outputs from the semi-structured interviews were compared with the outputs of the focus groups to establish patterns, trends, similar themes in addition to different viewpoints. The documentary evidence especially the daily COP15 newspaper and the bulletins were used as an additional source of data to track the decision-making process of the Conference and to also confirm the decision-making process of African leaders during the various segments (i.e. the technical and high-level) of the conference. In addition to the various basic criteria discussed above each criterion is elaborated below.

- *Credibility*

Credibility deals with the question whether an outcome relating to a causative relationship between two or more variables is rigorous (Bryman, 2012). In quantitative research it is defined as the identification of causal relationships where certain variables can influence other variables in the research study (Christie et. al., 2006). However, qualitative research, conversely does not deal with cause and effect relationships of independent and dependent variables but rather with establishing a phenomenon in a trustworthy and credible manner, i.e. 'generative mechanisms' or 'causal powers' (Guba and Lincoln, 1994; Yin, 1993). In essence case study research aims to detect generative mechanisms that assist in determining inferences about real life experiences (Bhaskar, 1978) as previously stated.

Lincoln and Guba (1985) state that '*credibility'* is dependent upon the methods used to collect and interpret data. One of the techniques used to enhance credibility is triangulation. Bryman 2012 defines triangulation as:

> *..."the use of more than one method or source of data in the study of a social phenomenon so that findings may be cross-checked'* (Bryman, 2012: 717).

Wallendorf and Belk (1989) also contend that the triangulation of methods requires the interpretation of data collected by several different methods.

As such, researchers argue that in the case study research, credibility can be established by the internal coherence of findings using different methods (i.e. triangulation), the use of case analysis, the development of diagrams, illustrations, linking the analysis to the prior theory identified in the literature review, the presentation and analysis of pilot case studies, peer debriefing, discussion of the results and conclusions with other academic researchers and prolonged engagement by the researcher with the participants or respondents (Bryman, 2012; Yin, 1993; Lincoln and Guba,1985; Merriam, 1988).

As earlier stated, the researcher in order to address the issue of credibility, three main sources of data-gathering methods were used: semi-structured interviews, focus groups and participant-observation. Other primary sources of data used were live pod casts from COP15, the COP15 daily programmes, bulletins, presidential speeches and other speeches by African leaders. The world media and various international TV channels coverage, such as BBC, CNN, and SKY also captured angry scenes by the African Group during the walkout in the first week of COP15 to demonstrate against the decision-making process relating to the succession of the Kyoto Protocol by the developed countries.

The researcher also used the various techniques discussed above. Specific examples to ensure the credibility of the research involved the use of a pre-pilot and pilot, diagrams, photographs, discussions and debriefs with members of the African Group, the engagement and discussions with other participants during COP15, discussion of the findings with other academics and research students thereby linking the analysis with the literature review in the later chapters.

According to Wallendorf and Belk (1989) a further method employed to improve credibility is through member checks. Iinformants are given the researcher's interpretation of the data and are asked for their comments in order to check the validity of the interpretation. The researcher at the end of each interview and focus group, the researcher's interpretation of the data was summarised verbally to the participant(s) to check validity. Where the participant's interpretation of record of the discussion differed slightly or an omission was made from the views of the leader or the group, this was entered in the field notes by the researcher and amendments made accordingly as it would not have been possible to return to validate the interpretations from the respondents. This fact was due to the uniqueness of COP15. Furthermore, it would be impractical to go back and check the interpretation of the data with the various African Group Leaders and the focus group participants individually due to the, potential cost, and time that would be involved.

- *Transferability*

'Transferability' or '*External Validity'* according to Bryman (2012) is concerned with whether the results of a study can be generalised beyond the research context in which it was conducted. In essence, transferability

> *…."deals with the extent of generalisability of the results of a causal study to other field settings'* (Sekeran, 2003:417).

Yin (1994) contends that case study research carries out analytical generalisation in which particular findings are generalised into a broader theory. Similarly, Wallendorf and Belk (1989) also argue that in an exploratory study, the researcher should seek to find exceptions to the explanations of the phenomena of interest. In essence, a researcher should progressively extend the context of the phenomena that will define the limits of transferability.

Furthermore, Yin (1994) argues that multiple case studies can be used to develop analytic generalisations through replication logic and/or by the substantiation of findings to achieve transferability. Other techniques that can be used include the 'thick' descriptions for a case study data base, cross-cluster and cross-case analysis, intended interview protocol, and the use of procedures for coding and analysis (Lincoln and Guba, 1985; Miles and Huberman, 1994).

The researcher in describing the case used 'thick descriptions' to present the findings of the study to give a sense of the decision-making processes of African Leaders. For example, the decision-making processes followed prior to COP15 which included amongst others, the African Common Position based on the implementation of AMCEN's Decision 2 and the meeting of the African Union Committee of African negotiators held on 14th May 2009. Descriptions of the decision-making processes during COP15 are also presented, in addition to rich accounts of the nature and setting of the historic event to portray its uniqueness as a historic worldwide event.

More importantly, in terms of transferability, COP15 was a unique case study. The findings from the study can be applied to subsequent studies of the decision-making process of African Leaders in subsequent UNFCCC COP meetings. It can also be applied to other international decision-making forums where African Leaders need to come together to make decisions. Furthermore, the findings from the research will enable improvements to be done in practice to ensure Africa's voice is heard in these settings and the processes for communicating Africa's views are structured, in addition to, improvements to the decision-making process. In essence the findings from the research can be transferred to other international context (Bryman, 2012).

- *Dependability*

'*Dependability'* deals with the ability of other researchers to carry out the same study and achieve similar results (Miles and Huberman, 1984). Likewise, Lincoln and Guba (1985) propose that dependability includes establishing the extent to which findings are robust over time and not an interpretation derived from one specific circumstance.

According to other researchers (Bryman, 2012) dependability in realism research is based on the assumption that there is a single reality which is studied repeatedly and, as such, in case study research, the dependability criterion demands the enactment of case study procedures so as to identify a documentation trail. In essence, the approved case study techniques for the reliability or dependability test are to establish the case study protocol during data collection, the execution of an interview protocol and the establishment of a case study data base (Eisenhardt, 1989). According to Yin (1994) the formation of a case study data base enables other researchers to access the files.

As such, in this research, findings were derived from a single wave of data collection using a number of methods. As previously stated, a triangulation method was adopted to enhance the integrity and dependability of the results. It was not possible to return to the interviewees at a later date, due to the unique nature of COP15 as afore mentioned, as well as the practical constraints of time and resources. However, a set of protocols were defined for the data collection using the three methods. For example, an 'Interview Guide' and 'Focus Group Guide' were developed prior to commencing data collection and are attached as Appendices 6A and 6B. Furthermore, the researcher ensured that all the records from the various phases of the research process were kept, from problem formulation, the research design strategy, selection of the research participants during the pilots and COP15, field notes taken, interview transcripts and data analysis in an accessible manner. Evidence of the various outputs were shown to experienced academic peers as part of the research process and discussions held to ensure proper procedures had been followed.

- *Confirmability*

'*Confirmability'* is defined as the ability of others to satisfy themselves that the research was carried out in the way it is described by the researcher (Lincoln and Guba, 1985; Miles and Huberman, 1994). Lincoln and Guba (1985) also state that confirmability is the act of establishing whether the respondents or the biases of the researcher are responsible for the research findings. According to (Yin, 1994) the basic technique for ensuring confirmability is by developing a record of data collected such as recorded tapes, transcriptions, interview field notes, secondary sources etc. to allow other researchers to observe a chain of evidence. The audit trail would allow an external observer to trace the logical progression of reasoning from the evidence presented to the conclusions drawn.

Furthermore, Lincoln and Guba (1985) also suggest various ways to improve confirmability. Firstly, multiple researchers can be used. This method was rejected due to time and financial constraints. Secondly, it is suggested that all the raw data and its interpretation can be given to an independent auditor. This external auditor should be asked to comment on the '*plausibility of the interpretations and the adequacy of the data'.* However, the practical and cost implication of employing an auditor to read through large volumes of collected evidence and interpret was also not feasible and, as such, this option was rejected. Notwithstanding, the researcher used the academic community to ensure the researcher was following the correct procedures at various stages of the research process. During COP15 due to the nature of the event, a large number of academics were present as Party Members to COP15; as such the researcher used the opportunity to discuss the findings with members of the academic community from other countries. This also allowed the researcher to also ensure objectivity, due to the role of the researcher as a participant observer and a member of the African Group. It was important to the researcher to ensure personal views did not interfere with the conduct of the research and research findings.

Furthermore, as earlier stated, throughout the field work, a comprehensive record of all the data collected was kept and stored in chronological order. Pictures in the form of photographic material as evidence of data being collected during the research were also taken and are appended to the study. Publicly available information used by the researcher, such as, articles, published government reports, technical papers, news articles and media coverage by international correspondents, such as, BBC News, CNN with regards to African leaders during and leading to the decision of the succession to the Kyoto Protocol, i.e. the Copenhagen Accord is also available to test confirmability. The deviation of African Leaders from the Common African Position is also publicly documented.

.As stated above, pertinent to the research was the use of the academic community, such as the assistance of fellow researchers, academic professors, research assistants, students and other independent individuals to ensure and improve confirmability.

- *Integrity*

The quality of data can be harmed by interviewees not being entirely truthful, withholding information or trying to impress the researcher (Easterby-Smith, 2012; Bryman, 2012; Nauchman, 1984). Wallendorf and Belk (1989) suggested various techniques to overcome these problems. These techniques include: prolonged engagement, triangulation of source, method and researcher, and careful interviewing techniques. For the purpose of this research, the researcher attempted to overcome issues of integrity though the use of triangulation of data sources, in-depth questioning during interviews and focus groups to reveal the meaning behind a response. This method was found to be extremely useful in uncovering the meaning behind responses, including the personal feelings of respondents in particular instances. The

researcher also validated the discussions immediately after each interview and focus group by recapping on the responses given by the participants in the transcribed interview and focus group notes where applicable, as in certain cases a tape recorder was used.

Furthermore, the use of an interpreter for African Leaders whose first language was not English, more specifically the French and the Arabic speaking leaders also ensured the integrity of the findings, as the interviewees were able to answer the interview questions in their native language thereby reducing the possibility of errors or mis-interpreting the information presented. Whilst this slowed the interview process down, it enabled the researcher to validate the responses by the use of an interpreter.

4.5.3 THE NEUTRALITY OF THE RESEARCHER

The researcher was formally registered as a Participant of the UNFCCC under the Nigerian delegation, in the capacity of the Special Technical Assistant to the Nigeria Environment Minister. The question of the independence of the researcher can therefore not be overlooked. The researcher whilst conducting the research made every attempt to stay neutral especially during the interviews and focus groups discussions with the African Leaders. The researcher's opinions and views were not discussed to ensure that they did not interfere with those of the participants. Field notes taken by the researcher were also checked with the moderator where feasible to check the consistency and accuracy of the data gathered. Furthermore, the use of multiple sources of data, helped to check the consistency of the data to ensure the researcher's bias or personal views were not interpreted in the data analyses.

4.6 THE UNIT OF ANALYSIS

According to Zikmund (2000) the unit of analysis specifies whether the level of investigation will focus on the collection of data about organisations, departments, groups or individuals. Hussey and Hussey (1997) identify the unit of analysis as the kind of case to which the variables or phenomena under study and the research problem refer, and about which data is collected and analysed. For this research the unit of analysis is the case itself, i.e. the UNFCCC within the boundaries of the UN organisation.

4.7 DATA COLLECTION

This case study on the United Nations Climate Change Conference relied on multiple sources of evidence and collection techniques. Yin (1994:67) identifies six major sources of evidence: *'documents, archival records, interviews, direct observation, participant observation and physical artefacts'*.

The research employed a triangulation of data collection methods, classified into primary, secondary and tertiary sources, all of which are unique. Denzin (1970) stipulates that in the use of triangulation of information:

> …''*the flaws of one method are often the strength of another, and by combining methods, the researcher can achieve the best of each, while overcoming their unique deficiencies'* (Denzin 1970:66).

4.7.1 PRIMARY SOURCES OF DATA

According to Cooper and Schindler (2006) primary sources are:

> *…''original works of research or raw data without interpretation or pronouncements that present an official position or opinion'* (Cooper and Schindler, 2006:34).

As such, the main primary sources of data for the research were collected through semi-structured interviews, participant observation and focus groups. These methods are discussed in more detail in Sections 4.7.4 – 4.7.7 below.

Other primary sources used included documentary evidence in the form of minutes of various UNFCCC meetings, including the African Group, AWG-KP, AWG-LCA and COP/MOP, photographs, UNFCCC COP15 climate change technical briefs, press briefings and speeches by African Presidents and other African Leaders. According to Cooper and Schindler (2006) this type of data is the most valid because of its lack of influence.

4.7.2 SECONDARY SOURCES OF DATA

Secondary sources of data are compiled by using primary data and have credibility (Cooper and Schindler, 2006). The secondary sources of data included work compiled and collected by others in some form that is readily accessible. This covered Chapter Two – the Literature Review. The material which presented the argument on the theory underpinning the research was collected by undertaking a comprehensive review of existing literature in the specific relevant research areas of decision-making, strategic decision-making including *Bounded Rationality*, group decision-making, climate change and the United Nations Framework Convention on Climate Change. Examples of the secondary sources of data included books, articles, journals, published reports, bulletins, etc.

Other examples include CLIMATE–L.ORG which is a knowledge management communications mechanism for more than 15,000 professionals in the climate policy community run by the International Institute for Sustainable Development (IISD). Information on United Nations activities is provided in cooperation with the UN system agencies, funds and programmes through the United Nations System Chief Executives Board for Coordination

(CEB) Secretariat and the UN Communications Group (UNCG) Task Force on Climate Change. The Earth Negotiation Bulletin (ENB) is also published by IISD and was another source of data. Key oral statements made by Party members daily were usually recorded in the ENB with a synopsis of the key decisions and/or progress of the negotiations. The Third World Bulletin (TWB) similar to the ENB was another key source of data. The specific secondary sources used in this research are given in Table 6 below.

4.7.3 Tertiary Sources of Data

These sources of data used for the research were published or unpublished work based on secondary sources and included documentaries on the impacts of climate change, magazines, bulletins and newspapers. Other sources included the official web sites for the UN, UNFCC and COP15. These sources were mostly used for frame working and cross-referencing. The ternary sources of data are also shown in Table 6 below.

TABLE 6 RESEARCH INFORMATION SOURCES: PRIMARY, SECONDARY AND TERTIARY

	Primary	**Secondary**	**Tertiary**
Type	▪ 23 Semi-structured interviews ▪ 6 Focus Groups ▪ Participant Observation by the researcher ▪ Photographs ▪ Presidential speeches and other speeches by Leaders of African Member States ▪ Speeches by the African Group of Negotiators ▪ Minutes of meetings under the African Group, AWG-KP, COP and MOP ▪ News interviews ▪ The African Common Position ▪ Live podcasts from COP15 ▪ COP15 daily programmes	▪ Books ▪ Journals ▪ Articles ▪ Thesis reports ▪ UNFCCC Reports ▪ Technical publications ▪ The Kyoto Protocol ▪ Earth Negotiation Bulletin (ENB) ▪ TWN (Third World Network) Bulletin ▪ National newspapers, e.g. The Times, Guardian, COP15	▪ UNFCCC Conference proceedings ▪ Filmed documentaries on climate change ▪ The Internet, i.e. the UN UNFCCC, IISD and ENB websites

Source: Compiled by the Researcher

4.7.4 SEMI-STRUCTURED INTERVIEWS

The primary data for this research was gathered using semi-structured interviews as mentioned above. The interview questions asked of African Leaders and the justification for the questions (shown in Table 5 above) is previously discussed in Section 4.4 – The Research Design. The use of semi-structured interviews gave the researcher the opportunity to probe for the views and opinions of the Africans. The interview guide used during the research is attached as Appendix 7.

According to Bryman (2012) probing is a way for the interviewer to explore new paths which were not originally considered.

> …*"The order in which the topics are dealt with and the wording of the questions are left to the interviewer's discretion. Within each topic, the interviewer is free to conduct the conversation as he thinks fit, to ask the questions he deems appropriate in the words he considers best, to give explanation and ask for clarification if the answer is not clear, to prompt the respondent to elucidate further if necessary, and to establish his own style of conversation'* (Corbetta, 2003:17).

The interviewer did not do the research to test a specific hypothesis or hypotheses (David and Sutton, 2004). Instead, the researcher had a list of key themes relating to decision-making and the procedures followed by leaders of the African Group, issues, and questions to be covered (Bryman, 2012).

Before initiating the interviews, approximately 12semi-structured questions were formulated, some of which were changed or re-worded during the course of the interview. Interview subjects were selected based on their position. The name of the delegation leader for each African Member State was obtained from the UNFCCC secretariat. For certain Member States, where the leading delegate was unable to be interviewed due to security reasons or timing, an alternative senior member of the delegation was sought. A total of 23 African Leaders were interviewed. Appendix 12 lists the African Group Leaders who were interviewed as part of the study. The African Leaders who were interviewed consisted of Presidents, Ministers, Ambassadors, Director Generals, Directors and other senior personnel of the country's delegation such as the UNFCCC Focal Point Representative.

The choice of a semi-structured rather than a structured interview was employed as it offered sufficient flexibility to approach the individual participants in different ways, while collecting the same data. All interviews were held in the various meeting rooms within the Bella Centre. Over half of the interviews took place during the high level segment of COP15, i.e. between16th and 18thDecember 2009. The interviews were pre-scheduled; however, due to the overrunning of a number of the COP15 Plenary sessions, a certain degree of flexibility was required by the researcher. In some of the interviews, an interpreter had to be used. In all cases, the

interpreter was a member of the same African delegation as the interviewee. The duration of each interview varied from 45 minutes to one hour and 30 minutes.

Before the commencement of each interview, an introduction was given highlighting the purpose and background to the research, the interview questions, the length of the interview in terms of time and the confidentiality of the discussion and the use of the data collected. Most leaders were accompanied by security officers, directors or special assistants. A number of interviewees had invited one or two members of their delegation to give comments or information in addition to their own response and these were also recorded. However, for the purposes of the study only the original interviewee has been included as a participant.

The interviews were recorded using a combination or methods. Some were recorded using a tape recorder, whilst others were transcribed or a combination of both methods was used during the interview. The intention was to use a tape recorder for all interviews conducted, as this would ensure the most accurate account of the conversations held. However, some security aides and ministerial assistants did not allow the use of a tape recorder. In these instances, the interview was transcribed and a synopsis of the interview was read back to ensure the accuracy of the data captured. However, this slowed down the progress of the interview.

4.7.5 PARTICIPANT-OBSERVER

According to Jorgensen (1989), participant observation is most appropriate when certain minimal conditions are present:

- *The research problem is concerned with human meanings and interpretations gained from the insider's perspective.*
- *The phenomenon is sufficiently limited in size and location to be studied as a case*
- *Study questions are appropriate for a case.*
- *The research question can be addressed by qualitative data gathered by direct observation and other means pertinent to the field setting' (*Jorgensen, 1989:117).

Jorgensen (1989) further states that:

> …''*participant observation is especially appropriate for exploratory studies [as it is] a special form of observation and a unique way of collecting data [...] Direct involvement in the here and now of people's daily lives provides both a point of reference for the logic and process of participation observational inquiry and a strategy for gaining access to phenomena that commonly are obscured from the standpoint of a non-participant'* (Jorgensen, 1989:118).

Furthermore, according to Iacono et. al., (2009:61), participant observation can '*arise from an on-going work situation where the researcher is an industry practitioner*'. Given the

researcher's professional status as a practitioner in the field of management consultancy and assignment as the Special Technical Assistant to the Minister of Environment during the data collection phase, participant observation was used as a method to further understand the group decision-making process of African Leaders within the context of the African Group. Daily activities in relation to how decisions were made, the interaction between delegates and the group dynamics of the various African Leaders were observed.

The formal African Group meetings scheduled from 8.00a.m. to 9.00a.m.daily were attended, as well as the African Group meetings relating to the Kyoto Protocol between 7.00p.m. and 8.00p.m., each day. These African Group meetings were at the technical level. A total of 18 African Group meetings at the technical level were attended during COP15. The researcher also attended all four meetings of the African Ministers Committee on Environment (AMCEN) and the two meetings of the Conference of African Heads of State on Climate Change (CAHOSCC) with Presidents.

The Plenary sessions of the COP15 / MOP5 were closed to party delegates. However, as the researcher was registered as a participant to the Conference, further need to negotiate access to the plenary sessions was not required. During the meetings of the African Group, AMCEN, CAHOSCC and the plenary sessions, detailed observations and field notes were made, including observations on the 'culture' of the UNFCCC decision-making environment. The researcher's presence in the midst of the decision-making process allowed the researcher's own understanding and notions to be continually challenged by the action and words of African Leaders within COP15. Conversations were had and questions were asked during the African Group meetings only.

4.7.6 FOCUS GROUPS

Focus Groups are a way of collecting data through group interaction on a topic determined by the researcher. Focus groups are especially useful when seeking to gather a "large amount of interaction on a topic in a limited period of time" (Morgan (1997:33)

Greenbaum (2000) states:

> *…"the goal of a focus group is to delve into attitudes and feelings about a particular topic, to understand the 'why' behind certain behaviours'* (Greenbaum, 2000:76).

Other researchers, such as Gibbs (2007),states that focus group research is a structured dialogue with a selected group of people to gain information about their views and experiences on a specific topic that is particularly suited for obtaining several perspectives (Gibbs, 2007). Gibbs (2007) further contends that the '*benefits of focus group research includes gaining insights into people's shared understandings of a situation'* and observing the way in which individuals are influenced by others.Furthermore, Fern (2001) argues that focus groups can be

distinguished by the research purpose they serve, the types of information and knowledge they produce, their scientific status and methodological factors; and identifies three types of focus groups i.e. exploratory, experimental and clinical. This research uses the exploratory type, as this type is used to either:

> ...*"explore a new issue, generate a hypothesis and for theory applications including generating theoretical constructs, causal relationships, models and theories*' (Fern, 2001:29).

The researcher's choice of using an *'Exploratory Focus Group'* can therefore be summarised as follows:

- The nature of the topic under investigation.
- The exploratory nature of the research.
- The fact the researcher had ready access to members of the African Group.
- The data collected would strengthen the findings of the research in conjunction with other data collection methods adopted for the research.

The focus group process consists of seven components. These include: group cohesion, the discussion process, the outcome, group composition, research setting, the moderator and the group process factors (Bryman, 2012). Some of these can be controlled by the researcher, while others cannot. The central component is the discussion process and the exchange of information. The discussion process, in turn, affects the nature of the focus group outcome. Bryman (2012) also states that group cohesion is important to the success of a focus group as it provides the reason for participants to contribute to the discussion. Group composition and the focus group setting affect cohesion, both directly and in combination.

Focus groups are generally comprised of 6 to 10 individuals (Bryman, 2012). However, according to Fern (2001) smaller mini-group focus groups are also common with 4 to 6 participants. The amount that each participant has to contribute to the discussion is a major consideration in determining group size (Bryman, 2012). Small groups work best when the participants are likely to be both interested in the topic and respectful of each other when the researcher desires to gain a clear sense of each participant's reaction to the topic. The researcher conducted 6 focus groups comprising of 4 to 9 members. A total of 61 participants took part in the focus groups. All the participants were leaders. Most of the participants were of Ministerial, Director or Senior Management level. Where the most senior representative was unable to attend, a leader from the technical Member State team was invited. The focus groups discussions were controlled by the researcher or the moderator to avoid vocal participants dominating the discussions.

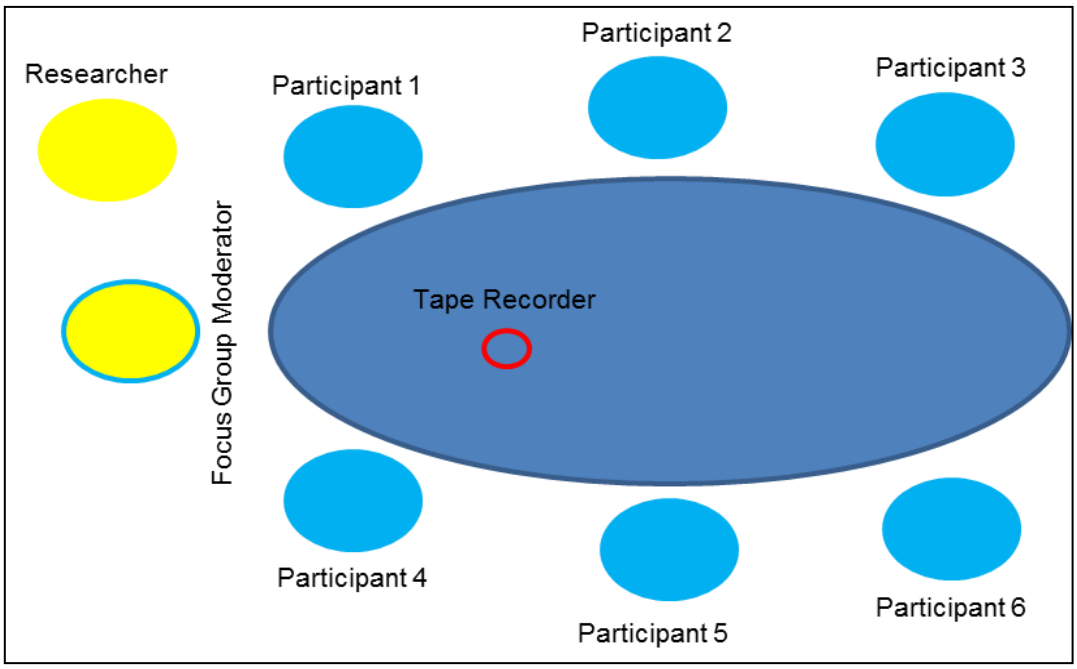
Compatibility was a concern when determining the composition of the focus groups. When participants recognise each other as primarily similar they spend less time explaining themselves to one another and more time discussing the issues (Morgan, 1988). Furthermore, the typical way to achieve compatibility is by bringing together homogeneous

participants (Bryman, 2012). A shared background or demographic characteristics, e.g. gender, race or ethnicity, age, location or residence, educational level, occupation, income, marital status or family composition are usually a common basis for selection (Bryman, 2012). However, other researchers (argue that too much homogeneity can restrict the range of issues and positions discussed (Bryman, 2012) to address this issue, a degree of heterogeneity was sought in the selection of the African Group members.

In this research, the participants were selected on the basis of gender, occupation and location (in terms of the African country they represented). Gender was chosen to ensure female representation amongst members, as in African cultures, the men tend to dominate. In terms of occupation, all the respondents were leaders within the environmental sector and had a relatively good understanding of the purpose of COP15. Locality was an important factor, as the researcher's aim was to have a member from each of the African states represented in the various focus groups. This was not achieved, due to the difficulty of getting participants together at the same time due to the volume of meetings and side events being held during COP15. The size of each focus group varied from 6 to 9 participants.

The setting refers to the space in which the focus group takes place. Considerations for setting include the ambient (i.e. tangible or physical) characteristics of a room, the tables, chairs and recording equipment (Fern, 2001). The setting of the focus group meetings was fixed for the duration of the conference, although the meeting rooms varied. In most cases the Nigerian Delegation Office was used for four of the six focus group meetings. The set-up of the meeting room for the focus groups is illustrated in Figure 11 below. This is based on a group consisting of six participants.

FIGURE 11 COMPOSITION OF A FOCUS GROUP OF SIX MEMBERS



Source: Compiled by the Researcher

The date of each focus group meeting was fixed; however there was a need to be flexible on the timing due to meetings and plenary sessions over-running. Most of the focus group meetings were held during the first week of the conference, to avoid impacting on the meetings scheduled to interview Ministers and Heads of Governments during the high level segment, which was the second week of the conference.

A large majority of the respondents used for the focus group interviews, were technical members of their delegation, but were all in a position of leadership. Suggestions about the optimal number of focus group sessions range from 2 to 8 (Fern, 2001). Most focus group research shows that fewer than five sessions are adequate, but this can vary depending on the type of research (Bryman, 2012). A total of six focus group sessions were held comprising of 4 – 9 participants. Another significant consideration taken into account was the availability of participants due to the nature of COP15, which therefore this factor was also considered in determining the exact number of focus groups used in this research.

Appendix 13 gives a breakdown of the focus groups held, the participants and the country of origin of the participants. The aim of the researcher was to achieve a good representation of African Leaders across the continent.

Discussion process: Fern, (2001) provides a series of factors which guide the focus group discussion process. These factors represent consecutive stages in the group discussion. The first is *social integration* which gives the opportunity for equal participation of all group members in the discussion. The second, the *mirror reaction*, is the individual participant's

awareness that other group members share similar ideas and anxieties (Fern, 2001). This subsequently relieves the anxieties of group members in relation to participation.

Condenser phenomenon, is the third factor, and is the activation of the collective consciousness and unconsciousness that makes it simpler to discuss the issues raised in the focus group (Fern, 2001). Finally, there is an '*exchange of information'* which is the process of sharing thoughts and explanations that makes up the majority of the discussion (Fern, 2001).

The researcher introduced the purpose of the research and then asked participants to introduce themselves. The uniqueness of COP15 and size of the event was also discussed to put participants at ease and develop cohesiveness, integration and to foster group discussion from the outset. More specifically, in the 90 minutes scheduled for each focus group, the first 10 minutes was devoted to the first two factors, social integration and mirror reaction. This included time for participants to check in and become accustomed to the room and engage in light conversation with the researcher and other participants. Introductions were made and participants got to know a little about each other. Participants were then asked to take a seat around the table. The researcher set the stage in terms of the role of the researcher, the purpose, and the ground rules (i.e. use of audio recorder) and the role of the researcher and/or the moderator for the session.

Interview questions were tailored for about 80 minutes of discussion. Table 5 lists the questions asked for the focus group interviews and the semi-structured interviews with the justification for the question in relation to the research. Each focus group was conducted in a structured manner. The researcher was guided by a set of questions from the focus group interview guide attached as Appendix 8; however, neither the exact wording nor the order of questions was predetermined. The exact wordings of the questions were adjusted slightly from focus group to focus group but the essence of the question remained the same.

As previously explained in earlier chapters, a fully structured style was not used as this research is exploratory and the intent was to determine the participants' perspective. On the other hand, a fully unstructured approach was not considered suitable as the researcher possessed insights into the relevant discussion topics from an extensive review of the literature and personal experience as a consultant/practitioner.

Generally, the focus group began with each participant providing a brief personal introduction. Questions were then asked about Africa's preparedness for COP15. This was followed by questions relating to how the African Group worked. These questions were used to ascertain, whether there was an understanding and awareness amongst members on the decision-making process of the African Group, and whether the Group leaders fully understood the process. Furthermore, it was important to ascertain whether members of the group were aware of the background, commencement and details of Africa's common position. Other

questions that were discussed included those relating to the participants' views on the impacts of climate change on Africa and the main concerns of the African Group. In addition there were questions relating to their views on whether they felt the decisions made by African Leaders were coherent and what the likely outcome from COP15 in terms of the expectations of the African Group would be.

A final important component to the discussion process is the moderator. In a focus group, the moderator is a facilitator or discussion leader, not a participant to the discussion (Bryman, 2012). Two important considerations must be taken into account when deciding on a moderator. These are prior experience and relationship to the participants (Bryman, 2012). As the researcher had both, the decision was made to use an independent moderator for four of the focus groups.

Focus Group Outcomes - The focus group outcome refers to the success in achieving the researcher's goal. Fern, (2001), defined 'outcome' as:

> i. *Task performance effectiveness (i.e. quality, quantity, and the cost of information).*
> ii. *The user's reaction (i.e. satisfaction with the process and output).*
> iii. *Group member relations (i.e. cohesive, compatible, and lively groups)'* (Fern 2001:62).

Outcome is the total effect of the other six components discussed earlier in the intended consequences of the focus group (Fern, 2001).

The type, quality and quantity of information produced in a focus group make up the '*output*' (Fern, 2001). This output may take one of several formats, depending on the researcher's needs (Fern, 2001).

The moderators' notes, audio recordings, transcriptions and interviews were all output from this study. During the focus group, careful attention was paid to the non-verbal aspects of communication. The recording of non-verbal communication, identification of speakers and the operation of the audio recorders were the responsibility of the moderator. Additional notes were taken on the focus group question guide by the researcher as a means of facilitating the discussion and recording notes and observations. Whilst field notes were taken, full detailed note-taking was not required as all focus groups were audio-taped and subsequently transcribed. The transcripts and focus group interview notes provided additional output. Data from these three methods was grouped separately.

An extensive review of the decision-making literature and research in the areas of group decision-making and the group decision-making processes of African Leaders in the context of climate change under the UNFCCC was undertaken prior to the collection of data during the main study. The information gathered provided the theoretical framework for the study and

guided the data collection methods. The immersion in the literature continued throughout the duration of the study as part of the data analysis process. An immense amount of data was collected from the study.

4.7.7 DOCUMENTATION

Documentary sources were also important to the data collection method as they compensated for the limitations of the other methods adopted by the researcher. Due to the nature and the size of COP15, an immense amount of data was available which was used to inform the research. The documentary evidence collected was used to provide a background to decision-making and the process of decision-making as it relates to climate change in the context of the African Group. Documentary evidence was also used to provide theoretical insights into the *Bounded Rationality theory* of decision-making and to cross-validate data gathered from the interviews, focus groups and participant observation during COP15.

The documentary evidence collected during the research included all Presidential and Ministerial speeches made by the leaders of the African Group, press releases, daily bulletins (ENB, TWN and ECO), UN communiqués and reports and the daily agendas and minutes of the COP15 meetings.

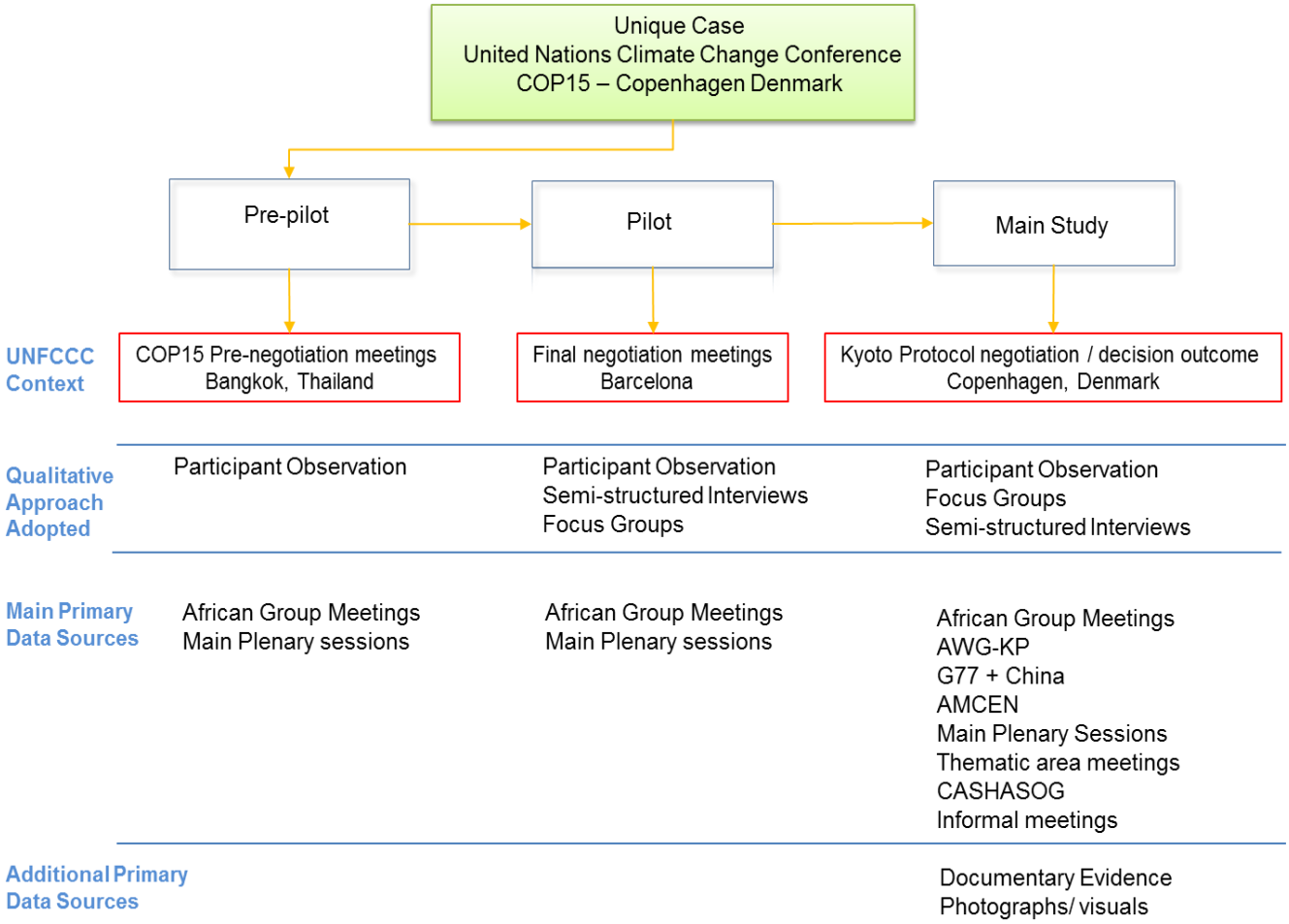
4.7.8 THE USE OF PHOTOGRAPHS

The use of photographic evidence by the researcher was also used. This is a growing field in qualitative research (Bryman, 2012) and was used by the researcher to inform on the setting and context of the research in terms of the uniqueness of the case, what was being observed by the researcher, and the role of the researcher as a participant-observer.

Whilst the use of photographic material (visual ethnography) was not part of the original research design, the uniqueness of the case study provided the opportunity to collect data in this form for the purposes of exploring the case and providing meaningful information through visual representation. The visual images are sensitive to the context of the case study and their uses were therefore deemed appropriate by the researcher, many of which are appended to the research.

Figure 12 gives a summary of the researcher journey and the research design and method adopted for the research.

FIGURE 12 RESEARCH DESIGN AND METHODS ADOPTED



Source: Compiled by the Researcher

4.8 DATA ANALYSIS

Data analysis is about making sense of the data collected by the researcher. It is a complex process that involved consolidating, reducing and interpreting the data to create meaning (Bryman, 2012). As mentioned above, a large amount of data was collected by the researcher from the study using the various techniques. The data was analysed using *Qualitative Content Analysis.*

According to Titscher et. al., (2000:55), *Content Analysis or Textual Analysis* is *''the longest established method of text analysis among the set of empirical methods of social investigation*" and has been defined as:

> "*the study of recorded human communications'* (Babbie, 2001:304).

Furthermore, Gillham (2000) states that:

> *… "The essence of content analysis is identifying* substantive *statements—statements that really say something"* (Gillham, 200:71).

Bryman (2004) states that *Qualitative Content Analysis* is:

> *…"probably the most prevalent approach to the qualitative analysis of documents" and that it "comprises a searching-out of underlying themes in the materials being analysed" (Bryman 2004:392)* and defined it as: *…"An approach to documents that emphasises the role of the investigator in the construction of the meaning of and in texts. There is an emphasis on allowing categories to emerge out of data and on recognising the significance for understanding the meaning of the context in which an item being analysed (and the categories derived from it) appeared"* (Bryman, 2004:542).

Moreover, researchers have stated that some content analytic methods have formal quantification as their aim (Cresswell, 2003). In essence, content analysis may be used to reduce qualitative data to numbers and subject them to statistical analysis, while other methods of content analysis are more interpretive, i.e. qualitative in nature (Bryman, 2012). Some methods of content analysis are inductive, deriving explanation or theory and future hypotheses from themes identified, while others are more deductive, assessing the data against prior theory and formal hypotheses (Cresswell, 2003).

Based on the above, *Qualitative Content Analysis* was used to analyse the data and has been considered as an appropriate analysis and interpretation method for case study research (Bryman, 2012). The data was analysed manually using a stepped process based on the works of Creswell (2003, 2007, 2009); Mayring (2000); Glaser and Laudel, (1999); and Tesch, (1990). The following six steps were adopted by the researcher to analyse the data.

i. Organising and preparing the data for analysis

Preparing the data for analysis involved transcribing, optically scanning material, typing field notes and sorting and arranging the data into different types, depending on the sources of information (Creswell, 2003). The data collected was first grouped based on the method of data collection, i.e. semi-structured interviews, participant observation and focus groups and the documentary evidence.

An extensive review of the decision-making literature and research in the areas of group decision-making, and the group decision-making process of African Leaders in the context of climate change under the UNFCCC complemented the collection of data during the main study. The information gathered provided the theoretical framework for the study and guided the defined data collection methods as previously stated. The immersion in the literature continued throughout the duration of the study as part of the data analysis process to the conclusion of the research to ensure new literature had been captured. However, the scope and decision outcomes of the UNFCCC CO16 in Cancun, Mexico in November - December 2010, the UNFCCC COP17 in Durban, South Africa in November - December 2011 and more *recently* the UNFCCC COP18have been excluded from the research analysis. However, the latest position in relation to the succession of the Kyoto Protocol is discussed in the final chapter of the thesis.

TABLE 6 CLASSIFICATIONS FOR CONTENT ANALYSIS - DATA COLLECTION

	Data Collection Method			
Main Categories	Semi-structured Interviews	Focus Groups	Participant Observation	Documentary Evidence
Abbreviation	**SSI**	**FG**	**PO**	**DE**
Code	**DCM01**	**DCM02**	**DCM03**	**DCM04**

ii. Read through the data

All the data collected was then read through by the researcher. According to Cresswell (2003) reading through all the ‘*’data obtained provides a general sense of the information gathered”* allowing the researcher *‘to reflect on its overall meaning*” (Bryman, 2012:421). Furthermore, According to Merrian (1998) reading through the transcripts, field notes, documents, jotted-down notes, comments, observations and queries obtained from the case study helps in analysing the data and forming explanations.

All material gathered was read. The researcher and moderator transcribed the tapes where applicable as in some interviews with leaders, this was not allowed. Notes were also taken on

the group dynamics as attention was also given to the participant's voice and ways of talking about the description of the African decision-making process under the UNFCCC, the decisions made and the way decisions were made during the interviews and focus groups. The notes transcribed by the moderator also reflected this fact. Notes taken while observing meetings and plenary sessions were also read including notes taken on the group dynamics amongst the leaders during these sessions.

iii. Begin detailed analysis with a coding process

The identification of the topics was both pre-determined by the researcher based on the literature, i.e. decision-making, and what emerged from the participant's vocabulary during the interviews, focus groups and observations. A full list of the topics was made and, this process was repeated with each transcribed document. Abbreviations were assigned for the various topics. Similar topics were the clustered together and formed into a table and arranged as major topics, minor topics and unique topics. The topics were then abbreviated into codes and patterns established. This was followed by further analysis of the data into sub-categories. Examples of the sub-categories included Finance, Sustainability, Technology Transfer, Training, and Developed Countries.

iv. Use the coding process to generate a description of the categories or themes:

Once the data was grouped into categories they were then reduced by grouping related topics.

v. Advance how the descriptions and themes will be represented in qualitative narrative

There are a number of techniques used to aid the integration of central categories and concepts (Merrian, 1998). These may include a narrative passage such as a discussion or chronology of events, a detailed discussion of themes complete with sub-themes, specific illustration, multiple perspective from individuals and quotations, or use of diagrams (i.e. visuals, figures or tables (Creswell, 2003). All these techniques were used to integrate and represent the data collected for the study some of which are appended to the research. The subsequent chapters discuss and analyse the data using narrative statements, the chronology of events during COP15, illustrations, photographs, quotations from individuals and tables.

vi. Make an interpretation or meaning of the data.

Once the overarching themes were established, poorly developed categories were re-grouped and comparisons made to the raw data collected by the interviews, the focus groups, observations made by the participant including the documentary evidence collected to ensure consistency and proper interpretation of the data. The coding system developed for the analyses are shown in Tables 6 – 9 below. The classification of the data in to various categories allowed the researcher to make meaning interpretations and cross references from the various forms of data methods.

TABLE 7 CLASSIFICATION SCHEME FOR CONTENT ANALYSIS: MAJOR CATEGORY

Category			
Major Topic	**Decision-making**	**Abbreviation**	**Code**
Sub-categories	Principles	PRIN	DM1
	Rules	RULES	DM2
	Procedures	PROCD	DM3
	Working Groups	WG	DM4
	AWG-KP	AWG-KP	DM5
	AWG-LCA	AWG-LCA	DM6
	Process	PROC	DM7
	Decisions	DECS	DM8
	COP	COP	DM9
	CMP	CMP	DM10
	Two-Track	TT	DM11
	Governance	GOV	DM12
	Collaboration	COLAB	DM13
	Member States	MS	DM14
	Parties	PARTIES	DM15
	Regime	RGM	DM16
	Time	TIME	DM17
	Meetings	MTG	DM18
	Decline	DECLINE	DM19
	GHG	GHG	DM20

Source: Compiled by the Researcher

TABLE 8 CLASSISIFCATION SCHEME FOR CONTENT ANALYSIS: MINOR CATEGORY

Category			
Minor Topic	**Climate Change**	**Abbreviation**	**Codes**
Sub-categories	UNFCCC	UNFCCC	CC01
	Kyoto Protocol	KP	CC02
	Participants	PPs	CC03
	Annex I Parties	ANX1	CC04
	Annex II Parties	ANX2	CC05
	Developing Countries	DEVLPNG	CC06
	Developed Countries	DEVLD	CC07
	Technology	IT	CC08
	Training	TRAIN	CC09
	Finance	FUND	CC10
	Shared vision	SV	CC11
	CCS	CCS	CC12
	Stakeholders	STHLDS	CC13
	Environment	ENV	CC14
	Mitigation	MIT	CC15
	Adaptation	ADP	CC16
	Impacts	IMP	CC18

Category			
Minor Topic	**Climate Change**	**Abbreviation**	**Codes**
Sub-categories	Degrees	DEG	CC19
	Stabilisation	STB	CC20
	Skills	SKL	CC21
	Mandate	MAN	CC22
	REDD	REDD	CC23
	Clean Dev. Mechanism	CDM	CC24

Source: Compiled by the Researcher

TABLE 9 CLASSIFICATION SCHEME FOR CONTENT ANALYSIS: UNIQUE CATEGORY

Category			
Unique Topic	**Other**	**Abbreviation**	**Codes**
Sub-categories	Governance	GOV	OTH01
	Sectoral Baseline	SBL	OTH02
	Interest Groups	IG	OTH03
	Sustainable Development	SUS DEV	OTH04
	OPEC	OPEC	OTH05

Source: Compiled by the Researcher

Detailed analyses emerging from the data in the form of explanations and descriptions of the decision-making processes of African Leaders in addition to the outcome of COP15 in relation to the African Common Position is presented and discussed in Chapters Seven and Eight respectively.

4.9 Ethical Considerations

According to Robson (2011) *Ethics* refers to rules of conduct, typically to conformity to a code or set of principles. Social researchers have argued that the ethical dilemmas that arise in social research are commonly considered to include a commitment to participants' rights and respect for participants; a commitment to knowledge; a commitment to the promotion and respect for social science and protecting the researcher (Robson, 2011).

In undertaking the study, the researcher ensured these ethical considerations were taken into account. All participants were given a comprehensive explanation of the purpose of the study. Consent of the participants was also sought during the interviews and focus group prior to the commencement of either the interviews or focus group sessions. Due to the senior level of many of the participants, a number of participants requested confidentiality of the information

given. Due to the number of requests experienced during the pre-pilot and pilot studies, the main study was conducted as a confidential piece of research which was explained to the participants. The research therefore gives anonymity to participants in reporting the data. Giving anonymity to participants when reporting on research is regarded as good ethical practice by ethical research boards and committees and expected in legal frameworks such as the UK's Data Protection Act 1988 (Robson, 2011).

The potential ethical implications envisaged in conducting the research could also arise from how interviews are conducted and how the material gathered from the interviews is reported (Laffin, 2008).

At all times whilst conducting the research the researcher maintained and complied with the Ethical Standards and Code of Conduct in Undertaking Research set out by Durham University. Therefore in conducting the research, the researcher ensured the following:-

- *Maintained objectivity in conducting the research.*
- *Upheld her professional integrity at all times.*
- *Demonstrated responsibility, competence and propriety whilst conducting the research.*
- *Employed accurate methods of data gathering and analysis as detailed in the preceding sections.*
- *Made use of relevant research methodology as discussed in Section 4.3.*
- *Chose the appropriate interpretation technique for the data gathered.*
- *Reported the data accurately.*
- *Abstained from knowingly falsifying and / or fabricating the data collected' (Sarandakos, 2005:279).*

Due to the sensitive nature of the decisions relating to the succession of the Kyoto Protocol, in the presence of a record-breaking number of world leaders at the Climate Change Conference in Copenhagen during the high level segment coupled with the focus of the world through an unprecedented number of media organisations, safety and security was an important issue. Furthermore, in view of the riots and protests during the conference, the researcher whilst ensuring the safety of the participants, as applicable, also ensured her own personal safety during the conduct of the research. This is an important factor in ethics and is a view held by other researchers, e.g. Belousov et. al., (2007). Belousov et. al., (2007) review the difficulties faced by field workers in ensuring personal safety when working in conditions characterised by danger and risks and suggest various mitigating measures to ensure the researcher safety in addition to the participants'. This factor was taken into account when conducting the research to ensure the quality of the data collected was not affected by the controversy and unrest occurring during the conference. All interviews and focus group meetings were therefore held within the Bella Centre Conference Hall, due to the high level of security maintained inside the conference centre throughout the conference.

In addition to the University's Ethics Code, the Economic and Social Research Council in the UK also provides clear ethical guidelines. The relevant aspects pertinent to the study were also adhered to by the researcher. These included:

- *Obtaining informed consent of research participants.* This involved informing the participants of the nature and purpose of the research, the methods used, what was required of the participants, and how the data gathered would be used.
- *Protecting the interest of the research participants*. The participants' privacy was protected at all times by ensuring their anonymity was preserved and the confidentiality of the data was guaranteed by the researcher.
- *Researching with integrity.* The researcher ensured that the research was conducted according to acceptable standards of practice, without fraud, deception or dishonesty, Blaikie (2010).

4.10 CONCLUSION

This chapter commenced with the role of organisational theory in positioning the theoretical, ontological and epistemological perspectives of the research. The chapter discusses the exploratory nature of the research and gives justification for the qualitative paradigm. the research questions are best considered in the context of semi-structured interviews, observations and focus groups as opposed to drawing conclusions from statistics. In essence, this chapter described the research design and strategy.

The main concern when designing the research was to ensure the research questions were addressed using a methodology that was robust and reliable, and capable of producing valid results through a number of data collection methods as afore mentioned. The procedures followed, including the activities for selecting, collecting, organising and analysing the data, are also discussed in depth.

Overall the methodology was considered very successful in eliciting respondents' understanding of how a common decision was made in relation to the succession of the Kyoto Protocol by a group of African Leaders, the commencement of the decision-making process and the eventual decision outcome of the conference. The richness and depth of the data was greatly enhanced by using a variety of data collection methods which also ensured the credibility, confirmability and integrity of the study.

Some problems were encountered during the initial parts of the semi-structured interviews and focus groups due to language barriers and the over-running of Plenary sessions mainly as a result of the attendance of numerous world leaders and the sheer size of COP15. However,

these challenges diminished as the interviewer became more experienced in managing the various issues.

The next chapter discusses the pre-pilot and pilot undertaken prior to the main study which is discussed in depth in Chapter Six. The implementation and operationalisation of the research design is tried and the necessary adjustments identified are defined.

CHAPTER FIVE A PRELIMINARY INVESTIGATION: EXPLORING THE CASE

5.1 INTRODUCTION

This chapter introduces and discusses the pre-pilot and pilot undertaken prior to the main research in COP15. The chapter aims to give an understanding of UNFCCC meetings relating to the procedures and decision-making processes discussed in Chapter Three. The researcher's attendance at the Climate Summit in New York is briefly discussed. The purpose of the pilots, the procedures followed, the findings and the preparations made for the main study are also presented. The lessons learnt from the pilots are highlighted with the chapter concluding with an overarching summary.

5.2 PURPOSE OF THE PILOTS

Whilst researchers tend to have a pilot, this researcher undertook work prior to the pilot in Thailand, Bangkok which for the purposes of the research is called the pre-pilot. This is worth mentioning as it helped inform the research design process and inform the data collection process for the main study. The pre-pilot gave the researcher an opportunity to become familiar with the UN environment which would have been a challenge if undertaken at the pilot stage, due to the complexity of the UN as an organisation, the decision-making processes of the UNFCCC and the role of the various informal meetings relating to the Kyoto Protocol attended by the African Group.

The purposes of the pre-pilot and pilot were as follows: -

i. To introduce and familiarise the researcher with the UN as an international organisation.
ii. To observe the 'workings' of the UN's decision-making process and procedures as it relates to the UNFCCC.
iii. To refine and test the research design and instruments for the main study.
iv. To make contact with various members, i.e. negotiators within the African Group, members of the AU, AUC and other relevant African stakeholders under the UNFCCC.
v. An opportunity to rehearse the data collection activities before the main study.
vi. To find out how African Leaders prioritise the issues to be debated at the UNFCCC.

5.3 The Pre-pilot

The pre-pilot was undertaken in Bangkok, Thailand at the United Nations Conference Centre of the United Nations Economic and Social Commission for Asia and the Pacific, Rajdamnern

Nok Avenue. It took place from 28th September to 7th October 2009 which included the first part of the seventh session of the Ad hoc Working Group on Long-term Co-operative Action under the UNFCCC, i.e. AWG-LCA7 and the first part of the ninth session of the Ad hoc Working Group on further commitments for Annex I Parties under the Kyoto Protocol (AWG-KP9). These sessions formed part of on-going negotiations under the UNFCCC and the Kyoto Protocol to enhance international climate change cooperation and decision-making. The negotiations were scheduled to conclude at COP15 in Copenhagen, Denmark, in December, 2009 which formed the main study.

The dates of the pre-pilot were restricted to 28th September to 5th October, 2009 due to the limited financial resources available to the researcher with which to conduct the pilots and main study. The pre-pilot was followed by a full pilot in Barcelona, Spain discussed below.

Furthermore, since the research focuses on the decision-making processes of the African Leaders in relation to the succession of the Kyoto Protocol, it was impossible to cover all aspects of the UNFCCC within this research due to the scope of the work, time constraints and, resources in terms of manpower and financial commitments.

At the pre-pilot, approximately 3,500 participants attended, known as the '*Bangkok Climate Change Talks*'. Participants represented governments, inter-governmental and non-governmental organisations, academia, the private sector and the media (IISD, 2009).

The researcher attended the meeting as a participant-observer. This was where the researcher observed the decision-making processes of African Group leaders at the various formal and informal meetings taking place in relation to the Kyoto Protocol. This was to obtain a general understanding of the procedures and obtain information by observation which would not be available using other research methods.

What had been observed by the researcher related to the physical setting and environment in which decisions were being made by members of the African Group, and other formal/informal groups under the AWG-KP. Observations generated insights into the procedures of how decisions were made and the formality of the proceedings, thereby providing a better understanding of the phenomena under study.

Access to the meeting was obtained in the researcher's professional capacity as the Special Technical Assistant to the Honourable Minister of Environment for Nigeria. During the period of the pre-pilot, the researcher observed the various daily proceedings and meetings of the following sessions:

i.	The African Group	8.00 a.m. - 9.00 a.m.
ii.	Group 77 + China	9.00a.m. - 10.00a.m.
iii.	The African Group- AWG-KP	18.00p.m. - 19.00p.m.

FIGURE 13 THE RESEARCHER DURING THE PRE PILOT, BANGKOK, THAILAND

Source: Taken during the pre-pilot phase for the Author

Figure 12 above shows the researcher at one of the morning African Group meetings with participants from Nigeria. Other Member State participants can be seen in the background. The African Group meetings were scheduled between 8.00a.m. and 9.00a.m. each morning. These meetings were well attended with members representing the different African Party Member States. A total of 42 African Party Member States were present in Bangkok for the pre-negotiation meetings. On average, at least 36 Member States were represented at each of the African Group meetings attended. However, the size of the African Member States varied. Table 6 gives a breakdown of the number of participant's attendance by African Member States. Furthermore, a number of the African Party representative negotiators were vocal and dominant at the meetings.

The African Group meetings appeared to be dominated by a few countries including South Africa, Algeria, Ethiopia, Sudan, Nigeria, Zimbabwe, Togo and Egypt. Participants from these Member States appeared to fully understand the decision-making processes, the issues that needed to be addressed, the strategies being taken by the developed nations and the alliances that Africa as a continent needed to form. As such, from the researcher's perspective the African Group appeared to have Parties that were conversant with the process and other that appeared to 'look on' with very little participation.

The issue of the provision of finance appeared to be one of the main issues for the African Group, in addition to the emission reduction targets by the developed nations and the continuation of the two-track negotiating process. On the issue of funding, the African Group appeared to want to have bi-lateral meetings with the European Union on this issue.

The etiquette of the decision-making process was not followed by some members of the African Group at the Plenary Sessions. Some of the African Member States did not flag to raise a comment or speak, which was required under the formal proceedings of the UN decision-making process. This was observed during the first meeting. However, this played out through the remaining days of the pre-pilot. At times this resulted in the African Member State being ignored by the Chair at a number of the meetings observed.

TABLE 10 AFRICAN MEMBER STATES REPRESENTED IN BANGKOK, THAILAND

Country	Members	Leaders
Algeria	11	4
Angola	2	
Benin	3	1
Botswana	5	1
Burkina Faso	2	2
Cameroon	2	1
Central A.R	4	2
Chad	2	1
Congo	2	2
Cote d'I voire	3	
D.R of the Congo	7	2
Egypt	9	5
Ethiopia	7	3
Gabon	7	4
Gambia	4	2
Ghana	11	4
Guinea	3	1
Guinea-Bissau	2	2
Kenya	7	4
Lesotho	6	1
Liberia	2	1
Malawi	3	1
Mali	3	1
Mauritania	2	1
Mauritius	2	2
Morocco	2	1
Mozambique	2	1
Namibia	3	1
Niger	2	2
Nigeria	26	7
Rwanda	2	1
Sao Tome& Principe	3	
Senegal	3	2
South Africa	20	8
Sudan	13	6
Swaziland	2	1
Togo	2	2
Tunisia	4	4
Uganda	8	3
United Rep Tanzania	5	2
Zambia	2	
Zimbabwe	2	2

Source: Fieldwork in Bangkok Climate Change Talks – Compiled by the Researcher, 2009

The African Group - AWG-KP meetings were scheduled between 6.00p.m. and 7.00p.m. daily. These meetings always commenced late i.e. 6.45p.m. and usually finished around 9.00pm. On two occasions, out of the three meetings attended, the meetings had to be rescheduled to a later time, due to other meetings over-running or the absence of key Member States to provide an update on the status of the negotiations under the Kyoto Protocol. The rescheduled meetings, to the knowledge of the researcher, did not take place.

5.4 PRE-PILOT FINDINGS

The main objective of the 'Bangkok Climate Change Talks' was to continue to streamline and consolidate the text under both AWG's, i.e. AWG-KP and AWG-LCA. In relation to the AWG-KP more specifically, discussion for the African Group focused on Annex I Parties emission reductions beyond the first commitment period under the Kyoto Protocol and financial contributions. Most African members felt that no significant progress was made on Annex I Parties' aggregate and individual emission reductions in the post-2012 period (TWN, 2009:14).

Furthermore, differences also surfaced between developed and developing countries concerning whether the outcome from Copenhagen should be an amendment to the Kyoto Protocol or a single new agreement (ENB, 2009:7).The African Group had consensus on this issue in that they wanted the establishment of a second commitment period under the Kyoto Protocol.

The African Group strongly opposed any attempt to coordinate or merge the two negotiating tracks mainly due to a desire not to see the distinction between the 'developed' and 'developing' countries compromised (ENB, 2009:4).This was motivated by the deep concern of the African Group that the weakening of the distinction between developed and developing countries could see the Protocol with its legally binding and economy-wide quantified commitments under the Protocol ending (TWN, 2009:2).

Throughout the various meetings attended by the researcher relating to the Kyoto Protocol, the African Group in addition to other developing countries:

> *…"expressed dismay that instead of trying to breathe life into the Kyoto Protocol, they were writing the obituary for it…and accused the EU and other developed countries of attempted murder'* (TWN, 2009:14).

Concerns over trust also emerged amongst members of the African Group, as some Member States were of the view that members were discussing details of the Common African position with other parties from the developed countries, as such weakening Africa's position.

The pre-pilot provided the researcher with a better understanding of the process of decision-making within the UN environment as it related to the UNFCCC and the Kyoto Protocol. It also provided the opportunity to meet with key members of the African Group, including the

Chairperson and other influential leaders within the African Group, other members of the key African organisations such as the AU, participants from African Parties and the UNFCCC secretariat.

The format of the African Group meeting, the African Group meeting AWG-KP and the plenary sessions was also viewed, and the manner in which members addressed the chair of these meetings and other party members including the complications involved in the reviewing and drafting of the text was also observed. The pre-pilot also provided an opportunity to plan ahead for the pilot more specifically in relation to the detailed research design.

The pre-pilot also enabled the researcher to clearly define the boundaries for the research due to the number of meetings and issues being addressed under the Kyoto Protocol. Following the pilot, the interview questions and focus group questions were also refined with some additions and deletions. However, the refinement of the questions was one of the main outcomes of the pilot study.

5.5 THE PILOT STUDY

The pilot study for the research was conducted in Barcelona at the Barcelona Climate Change talks held from 2nd to 6th November 2009. The Meeting was held at the Fira Gran Via Convention Centre, Barcelona. The one-week meeting was the final round of negotiations under both AWGs before the Fifteenth Conference of the Parties (COP 15) in Copenhagen, Denmark.

The main objectives of the Barcelona session were to continue streamlining the negotiating text, identify key issues and provide clear options for ministers to choose from in Copenhagen. The session formed the second part of the AWG-LCA 7 and AWG-KP 9.

The focus of the researcher was on the design of the research, the decision-making processes in relation to the Kyoto Protocol and more specifically the Common African Position in relation to the African Group of leaders. It also became even more evident that it would be impossible to cover all aspects of the UNFCCC, the Kyoto Protocol and the separate negotiating tracks due to the sheer volume of work that would be involved, the time it would take and the cost of undertaking the work. Furthermore, previously mentioned, if all the elements of the UNFCCC negotiations were to be covered, this would be outside the scope of a doctorate thesis.

The main theme around the venue was *'Seal the Deal'*, the United Nations Secretary General Ban Ki-moon's famous slogan. The theme of the message was that:

> *..."if there was no deal in Copenhagen the world would be doomed to a future of global warming that would lead to sea rise, glacial melting, floods, and agricultural productivity loss'*(TWN, 2009).

The aim of the pilot was therefore to test the proposed research design and data collection methods, i.e. semi-structured interviews, focus groups and the researcher's role as a participant-observer. The data collection methods selected were based on the exploratory nature of the research and the researcher's interest in exploring how decisions were made, the processes followed and the interaction of the African Group in making the decision.

The pilot was also used to reinforce the researcher's understanding of the mechanisms of the UN, the format of UN conferences and the internal decision-making processes within these meetings. The decision-making timeline of the African Group up until the meeting in Barcelona was also gathered from five semi-structured interviews, a focus group meeting and secondary sources available at the event.

The following activities were undertaken during the pilot:

i. Obtaining and reviewing the African Common Position.
ii. Semi-structured interviews with five African Group Leaders.
iii. A focus group with seven members from the African Group.
iv. Attendance at several meetings as a participant-observer:
    a. African Group meeting
    b. G77 and China Group meeting
    c. African Group meeting - AWG-KP
    d. Press briefing – African Group
v. The collection of documentary material, i.e. the daily agenda, TWN bulletin, ENB; the African Group News Watch.
vi. Attendance at the Ad hoc Working Group on further commitments for Annex I Parties under the Kyoto Protocol (AWG-KP).
vii. Attendance at the African Group Press briefing.
viii. Informal discussions with participants from African Member States.

A copy of the African Common Position was obtained from the Chair of the African Group and is attached as Appendix 9. The African Common Position was updated prior to the meeting in Barcelona and was originally based on the Nairobi Declaration in 2006. The African Common Position on climate change had three distinct elements, as described below:

First, the decisions of the AU Assembly on climate change. These decisions were based on many decision-processes in the continent, including the Conference of African Ministers of Environment (AMCEN), Conference of African Ministers of Finance and the AU Executive Council.

Second, the updated Algiers Declaration dated May 2009 on the '*African Common Platform to Copenhagen'.* This version emerged following the Algiers submissions to the UNFCCC negotiations on behalf of the African Group of negotiators, as approved by the AU Summit.

The third stage was the final submission from the African Group of negotiators to the UNFCCC negotiations at COP15.

Chapter Seven captures and discusses the key elements of Africa's Common Position submission to the UNFCCC.

The African Common Position document was held in secret and shared only amongst African Member States and key stakeholders such as representatives from the AU, AMCEN etc. From the pilot, the decision-making processes of the African Group had commenced and what was being undertaken was the refining of the text following negotiations with Annex I and Non Annex I Parties including the Group of 77 + China. Notwithstanding, it appeared some African Leaders were more 'in the know' than others'.

5.5.1 SEMI-STRUCTURED INTERVIEWS

Interviews as discussed in the proceeding chapter are a useful tool and a prominent data collection method in qualitative research (Bryman, 2012). From the researchers perspective the aim of the semi structured interviews was to elicit information from African leaders on the decision-making process in order to establish whether there was an understanding of the processes involved and their views on the negotiation process in relation to the decision on the succession of the Kyoto Protocol.

The behaviour and attitudes of the interviewees was also important to enable the researcher to develop a sense of their views on how the decision-making process and negotiations were progressing amongst Party members and more specifically, the African Group leaders. The researcher was also keen to understand the key issues of the African Group and how these were being addressed in the decision-making process,

The interviews also allowed the researcher to establish rapport with some of the key individuals of the African Group and African Member States to enable the negotiation of access during the main conference and build professional relationships for the focus group interviews prior to COP15.

As afore mentioned, semi structured interviews were used rather than structured interviews to allow interviewees to give their full view rather than adopting a standard approach, which whilst it has the advantage of giving interviewees exactly the same standardised questions, the questions are usually very specific and do not allow the researcher to delve deeper or probe further due to the type of interview. This type of interview is more applicable to

quantitative research as it reduces variations due to the standardisation of the questions and offers greater accuracy in and the processing of responses (Bryman, 2012). In these types of questions, a limited number of possible choices are given to answer questions,

The semi-structured interview design was used as it allowed the researcher to understand the decision-making process by obtaining a deeper insight into the phenomena by questioning and probing the interviewees. A series of questions were developed as a general guide as shown in Appendix 3, however, using semi-structured interviews allowed the researcher to have a series of questions and more importantly, change the order in which the questions were asked depending on the direction the discussion. As this mode of questioning, gave the researcher latitude to ask additional questions if required. For example, the question on the impacts of climate change varied from region to region, as discussions with Member States in North Africa, the climate change challenge related to desertification rather than coastal erosion, and as such the discussions tended to focus on mitigation and adaptation measures including discussions relating to decision-making process to alleviate these challenges.

The interviews allowed the researcher to explore how African leaders made decisions and whether there was an understanding of how Africa's decision-making strategy emerged in relation to COP15 and whether there was an understanding of the collective decision-making processes by African leaders prior to COP15.

The interviews also allowed the researcher to ascertain the views of African leaders on the problems of decision-making in relation to climate change, the associated processes and what could be done if applicable to improve the process in the context of climate change negotiations and decision-making.

As such, five preliminary semi-structured interviews were held with leaders from five different African Member States. The members were selected to ensure a representation from the five African regions, i.e. North, South, East, West, and Central Africa due to the variations in climatic conditions across the regions and the diversity of the continent.

In conclusion the main findings of each theme of the semi-structured interviews conducted were to a very large extent supporting those findings obtained from the literature review. The semi-structured interviews provided fresh insights by addressing several controversial issues that could not possibly be captured through other data collection instruments and therefore it perfectly achieved and served its intended purpose. It is worth noting that the open-ended-questions employed by this study have encouraged rich and constructive discussions between researcher and interviewees and substantiated very important points. The following individuals were interviewed shown in Table 11 below.

TABLE 11 INDIVIDUALS INTERVIEWED DURING THE PILOT

	Party Member Name and Designation	African Country	African Region
1	**Mr Kamel Djemouai** Sous-Director et Point Focal Nationale l'UNFCCC, Ministere de l'amenagement du territoire de l'environment et du tourisme.	Algeria	North
2	**Mr Phetolo Phage** Director, Department of Metrological Services, Ministry of Environment, Wildlife and Tourism	Botswana	South
3	**Mrs Grace Akumu** Technical Advisor Government of Kenya / Executive Director of Climate Network Africa	Kenya	East
4	**Mr Victor Fodeke** Head Climate Change Unit, Federal Ministry of Environment, Nigeria	Nigeria	West
5	**Mr Rodrigue Otogo** Director National de la SCNCC Ministere de l'environment	Gabon	Central

Source: Compiled by the Researcher during the Pilot

The pilot was also an opportunity to refine the interview questions. A total of 12 questions were asked by the researcher relating to: the decision-making processes of the common African position; the progress to date made by the African Group in terms of Africa's common position; the impact of climate change in their individual countries and likely outcome of the negotiations. The interviews were also an opportunity to refine the wording of the questions based on the comments received by the African Leaders. The questions were also refined to ensure they addressed the research questions and the research gap. The concept of rationality was explained to participants, but the words were deleted from the research questions.

Before the commencement of each interview, the researcher explained the purpose of the interview and how the information would be used. All the interviewees were informed that the questions were being refined for the main study to be conducted in Copenhagen in December. Most interviewees were keen to be involved during the main study too.

The introductory statement for the semi-structured interview sessions relating to the purpose of the research was also refined based on discussions with interviewees. The main area

related to the protocols on how to address senior figures such as Ministers, Prime Ministers, Vice-Presidents and Presidents during the interviews.

The questions were linked to the theory of the research and to study the phenomena under investigation, i.e. *How African Leaders make a common decision in relation to the succession of the Kyoto Protocol using the theory of Bounded Rationality?* and the sub questions, '*How did Africa's decision-making strategy emerge in relation to COP15*?','*What was the collective outcome of the decision-making processes by African Leaders?' and What recommendations can be made to improve the decision-making process of African Leaders in climate change negotiations?'*

As previously stated in Chapter Two, *Bounded Rationality* asserts that '*decision-makers are intendedly rational, that is, they are goal-oriented and adaptive but because of human cognitive and emotional architecture, they sometimes fail in important decisions'* (Jones, 1999).

The questions were therefore asked to explore the decision-making processes of African Leaders individually and as a group on such a sensitive and contentious issue, climate change, which according to the IPCC (2007) affects the African continent the most.

The questions were not asked in any particular sequence, but were asked in an order that followed with the direction of the discussion. Where leaders strayed off the point, the researcher was able to bring them back on track, by asking a question which would focus the response accordingly.

The interviews lasted between 30 - 45 minutes. Interviews were recorded with the permission of the interviewee. Notes were also taken by the researcher during the interviews. The interviews were held in a variety of meeting rooms, with one meeting being held in the coffee area. This was not ideal due to the background noise. However, due to the limited number of free rooms available and the tight time schedule of the various interviewees, the researcher's option was to make use of the open spaces or other areas available.

The interviewees were knowledgeable on the decision-making processes in relation to the African Common Position. However, the exact timing of the commencement of the processes varied amongst the respondents. The main issues were the continuation of the Kyoto Protocol, reduction commitments by developed nations and funding. There appeared to be very little attention given to the other issues under the negotiations, i.e. capacity building, technology transfer, training and the CDM.

5.5.2 THE FOCUS GROUPS

Chapter Four discusses the focus group as an interview technique involving more than one participant and is suitable for conducting research within the qualitative tradition (Bryman, 2012).

The focus group allowed the researcher to explore specific issues relating to the decision-making process in-depth. The various perspectives of African leaders were obtained. All the participants were involved in climate change in one capacity or the other, as such had tacit experience of the decision-making process. However, the focus group allowed the researcher to obtain a view of their understanding of the decision-making process and negotiations in an international setting and the way in which the group members discussed the various issues.

For instance, this included the challenges of climate change, leaders attendance as negotiation meetings, climate change mitigation and adaptation strategies including finance, technology, skills transfer and reduction targets.

The focus groups allowed the researcher to elicit leaders' views in a group setting and study the group dynamics in the process to develop a sense of the likely behaviours by providing an understanding why leaders felt the way in which they did, observe how leaders probed and asked questions of each other, and establish whether there were any changing views or explanations given, more specifically in relation to the outcome of COP15. The researcher was also able to with interests' coalitions amongst African Member states, especially on the issue of perceived benefits – the succession of the Kyoto Protocol was likely to bring about.

The divergence of views and the strength of feeling were also revealed in relation to the developed nations and the reduction of targets. Conflicting views on emission reduction was also perceived. The strength and novelty of African leaders coming together to make a decision and the process taken to reach the current stage prior to COP15 in light of the research and focus group questions were also discussed.

As a design, the focus groups interviews allowed the researcher to develop the views of a number of leaders at the same time, thereby saving the likely time and resource that would have been used and costs incurred if the researcher attempted to interview all the leaders individually.

The manner in which the research questions were discussed was also important, as in addition to it allowing the researcher to view the group dynamics between different countries, it offered the researcher an opportunity to study the way in which collectively African Group members made sense of the phenomena and construct meaning around the decision-making steps and processes.

The likely vocal African Member states during COP15 were also potentially identified, enabling the researcher to plan to ensure the views of all representative Members of the African regions would be taken into account rather than the more powerful African economies which were beginning to become apparent. Furthermore, the researcher was able to plan to encourage quieter Member States to contribute in a non-intrusive manner in the various focus group interviews.

A single focus group was held consisting of seven participants. The focus group was held in one of the free meeting rooms within the convention centre. Three of the participants were selected from the formal UN participant list of those registered for the Climate Talks session. Others were approached during the African Group meetings. In all seven participants were identified in a random manner to participate in the focus group. Table 8lists the focus group participants.

TABLE 12 LIST OF PILOT FOCUS GROUP PARTICIPANTS

	Party Member Name and Designation	African Country
1	**Mr Temothee Kagonbe** Intergovernmental Panel on Climate Change (IPPC) Focal Point	Cameroon
2	**Mr Thomas Gomes Barbosa** Directeur general de l'environment	Guinea- Bissau
3	**Mr Bruno Morapeli Sekoli** UNFCCC Focal Point Lesotho Meteorological Services	Lesotho
4	**Mr Teofilus Mutangeni Nghitila** Director Environmental Affairs Ministry of Environment and Tourism	Namibia
5	**H.E Mr Ibrahim Mirghani Ibrahim** Ambassador of Sudan to Kuwait and Chairman of G77 and China	Sudan
6	**Mr Philip Gwage** Co-ordinator and National Focal Point Ministry of Water and Environment	Uganda
7	**Ms Yawe Agnes Nalugooti** Technical Assistant, Ministry of Tourism, Environment and Natural Resources	Zambia

Source: Compiled by the Researcher during the Pilot

All the participants had a good command of English. The participants were informed of the date and time of the focus group meeting, which took place on Wednesday 4th November 2009 between 1.00p.m. – 2.30p.m. Prior to the focus group meeting, a plan was developed with indicative timings for each question on the guide. This was undertaken to ensure the essential questions were covered and the time allocated for the focus group was kept.

The questions from the semi-structured interview were used as the starting point, with some questions added following the focus group trial as a set of pre-defined questions were developed prior to the focus group, which were then asked of the group. The questions were not asked in a particular sequence but were determined by the direction of the group discussion. A tape recorder was used during the session to aid the collection of the data. Notes were also taken by the researcher. The researcher took the role of the moderator.

The purpose of the research was explained to the participants. All the participants of the focus group during the pilot study were in a leadership position. The participants were all keen to be of assistance and take part in the study. The focus group also appeared as a venue for the participants to express their frustrations with the progress and speed of the negotiations. Participants were then asked to introduce themselves to each other. After the introductions and the purpose of the research had been outlined, the ground rules for the focus group were established. The group were then asked the questions. Most of the participants were vocal and keen to participate and appeared more knowledgeable than the leaders who took part in the semi-structured interviews. This could have been due to the presence of their participants and for members to appear knowledgeable in front of their peers and other counterparts.

At the end of the focus group, the main points expressed by the participants were recapped, and adjustment were made if the notes transcribed did not reflect the responses, or if gaps were left in the notes, an explanation was offered by the respondents. The participants were thanked for their assistance. The use of the tape recorder also aided the transcribing of the session after the focus group. The researcher also learnt that the speed of transcribing was an important factor to avoid the loss of information as participants responded or discussed points. This was one of the key learning points emerging from the focus group in the design of the study.

Furthermore, the various questions asked during the semi-structured interviews and the pilot group were amalgamated to a single set of questions with slight variations on the wording of two questions for the main data collection phase. This was deemed necessary to ensure the questions were exploring the same theses and to improve the quality of the data collected. A common introductory paragraph was also developed and used for the main study. The semi-structured questions and focus group guides are appended as Appendices 6A and 6B respectively.

5.5.3 AFRICAN GROUP MEETING

Three meetings of the African Group were attended. The African Group meetings were closed meetings and were scheduled between 8.00a.m. and 9.00a.m. each morning. The meetings provided an opportunity for the researcher to meet some of the key players within the African Group such as the Chair of the African Group, Kamel Djemouai (Algeria). Furthermore, it provided an opportunity as a participant-observer to watch the group dynamics between different African Group members.

The main area of focus during the African Group meetings related to the emission cuts by the developed countries to commit to deep emission cuts by at least 25 to 40 per cent by 2020 compared to 1990 levels. However, the developed countries during the various plenary sessions, contact groups and briefings had made it clear that they intend to move away from the Kyoto Protocol which has internationally binding emission reduction targets to a new agreement.

The other area of contention amongst the African Group members related to keeping global temperature rise below 2^{o}C. Some party members advocated for 1.5^{o}C (ENB, 2009:4). Consensus was reached by the members of most parties expressing their concerns and the need for the African nations to work together. The Gambia, on behalf of the African Group, supported by Algeria, Egypt and Nigeria called for all contact groups under the AWG-KP to be suspended until conclusion of the work by the contact group on Annex I emission reductions (ENB, 2009:15).

FIGURE 14 AFRICAN GROUP MEETING IN BARCELONA DURING THE PILOT

Source: Taken by the Researcher during the Pilot fieldwork

From the three meetings attended by the researcher, as previously observed some African negotiators were more vocal than others. The dominant vocal African parties during each meeting were considered by the researcher to be Sudan, Egypt, Algeria, Mali, Nigeria, South Africa, Kenya and Cameroon. Figure 13 shows the members of the African Group at an African Group meeting.

At the beginning of the second AWG-KP 9, the African Group, supported by other developing countries, called for the halting of the AWG-KP's work on issues other than 'numbers' (ENB, 2009:2). This led to a suspension of all AWG-KP contact groups until Wednesday 4th November 2009 after an agreement had been reached to devote 60 per cent of the remaining meeting time to 'numbers' and evaluating progress at the end of each day (IISD, 2009).

5.5.4 African Group Press Conference

The researcher also attended the African Group Press Conference as a participant-observer. The African Group were represented by the following: -

i. Pa Ousman Jarju - Gambia
ii. Grace Adhiambo - Kenya
iii. Kamel Djemouai - Algeria
iv. Bruno Sekoli - Lesotho

The aim of the press conference was to present a united front from the continent of Africa to ensure Africa had a '*voice'* in the negotiations and to reinforce the Common African Position.

5.6 The Pilot Findings and implications for the main study

From the researcher's perspective, the decision-making processes were clear, well-structured with a decision reached by the Party Members on maintaining Africa's Common Position. The development of Africa's Common Position and the associated decision-making processes had commenced well in advance of COP15. African Group party members were also united in their approach during the negotiations during the pilot. Whilst the Common Position, was mentioned, it did not form the focus of the discussions in the meetings as there appeared to be a full understanding of the strategy by members of the African Group. However, there were some concerns raised relating to the absence of members from the African Group at some of the informal meetings relating to HFC's, bunker fuels, adaptation, REDD and land use As stated in the daily TWN Bulletin, also concurred by the researcher, the African Group was united in the negotiations, '*Africa united for the first time in Barcelona'* (TWN, 2009:1). However, whilst the African Group appeared united, there appeared to be no formal method adopted on the priority of issues. Issues appeared to centre on three specific themes; the continuation of the Kyoto Protocol, reduction commitments and funding, which could contribute to the low attendance of African Group Members at other meetings to discuss other issues relating to the succession of the Kyoto Protocol.

5.7 OTHER MEETINGS

The researcher also attended the UN Climate Change Summit in New York on 20th September 2009. The UN Climate Change Summit was attended by over 100 world leaders from the developing and developed nations and was considered to be the political heads pre-meeting before Copenhagen.The purpose of the meeting was to engage world leaders in aiming for a comprehensive, ambitious and fair international climate change deal in Copenhagen. The summit chaired by Ban Ki-moon used the summit to '*Seal the Deal'* (Ban Ki-moon, 2009).

The researcher was able to use the summit as a precursor to determine the number of African Leaders likely to attend and to collect additional secondary sources of data, e.g. articles, published reports on the UN as an organisation and the UN procedures including technical UNFCCC reports. It also served as an opportunity to meet some of the assistants supporting world leaders with the aim of getting an interview slot in Copenhagen.

5.8 CONCLUSION OF THE CHAPTER

This chapter has discussed the pre-pilot and pilot undertaken by the researcher prior to the main study in Copenhagen. The pilots were used as a rehearsal and to validate the research strategy and the data collection methodologies to be employed by the researcher in Copenhagen. The pilots also provided an opportunity for the researcher to get an understanding of the decision-making processes within the United Nations as they relate to the UNFCCC and, more specifically, the decision-making processes of the African Group.

The chapter also presented the African umbrella group under the UNFCCC, the researcher's attendance at various African meetings and the identification of some of the key players within the African Group.

The next chapter discusses the main study, which is a single unique case of COP15 in Copenhagen, Denmark. The data gathered, the key decision-making processes followed by the African Group, the key events that followed and the outcome of the Conference are discussed in order to relate it back to the literature on the decision-making processes of the African Group using *Bounded Rationality.*

CHAPTER SIX COP15: THE UNIQUE CASE IN COPENHAGEN

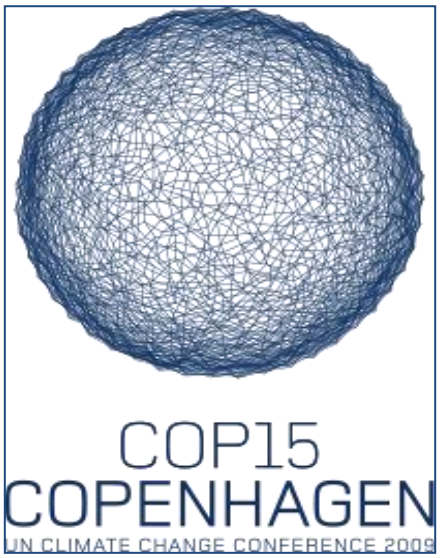
6.1 INTRODUCTION

This chapter presents the main study for the research which explored how a group of African Leaders made a common decision in relation to the succession of the Kyoto Protocol based on the theory of *Bounded Rationality*. As revealed in previous chapters, the study was based on a single in-depth case study of the historical and unique United Nations Climate Change Conference in Denmark, Copenhagen which took place from 2nd December 2009 to 19th December 2009. The study consisted of the detailed and intensive analysis of a single case (Bryman, 2008). This chapter therefore analyses the case, the various data gathering techniques used and gives the highlights of the event relevant to the research. The chapter concludes with an overarching summary.

6.2 THE UNIQUE AND REVELATORY CASE

The main study for the research was undertaken during the 2009 Climate Change Conference, popularly identified world-wide as COP15. As stated in previous chapters, the case study is formally known as the Fifteenth Conference of the Parties (COP15) to the United Nations Framework Convention on Climate Change and the Fifth Meeting of the Parties (MOP5) to the Kyoto Protocol. The conference was globally identified by a distinct logo depicted in Figure 14 below. COP15 was hosted by the Government of Denmark, in Copenhagen, Denmark and took place in the Bella Centre (Figure 15).

FIGURE 15 THE COP15 UNFCCC LOGO



Source: United Nations COP15 Website, 2009

COP15 had extensive media coverage across the world by various main stream news channels, such as the BBC, CNN and SKY News with a number of TV networks undertaking a 100 days count down to the opening of the conference. Other activities by the media included daily news features on climate change, the impacts of climate change, potential environmental solutions, environmental initiatives world-wide and the anticipated outcome of the conference were also featured.

According to Yin (2003) the extreme or unique case study has an intrinsic interest that makes it essentially unique. This is evident in COP15 and is supported by a number of commentaries and narratives on the event substantiating and confirming the uniqueness of the case.

> …"*The UNFCC COP15 in Copenhagen...The entire world is looking to the meeting with hope and expectation for the signing of an effective global agreement to replace the much discussed and never fully implemented Kyoto Protocol' (*ICIMOD, 2009).
>
> …"*The conference was an exceptional event that attracted unprecedented participation'* (UN, 2009).
>
> …"*The 15th Session of the Conference of the Parties (COP15) to the United Nations Framework Convention on Climate Change (UNFCCC), to be held in Copenhagen in December 2009, (…) will be the most important international gathering since the Second World War'*(Stern, 2009).
>
> …"*The President, the Prime Minister of Denmark, noted the presence of so many Heads of State and Governments reflecting an unprecedented political determination to combat climate change'*(ENB, 2009).
>
> …"*Mark this meeting in history and let us get it done […] because if we miss this chance, it may take years to get the next one'* (Hedegaard, COP15 President, 2009).

FIGURE 16 INSIDE THE BELLA CENTRE AT COP15 WITH PARTICIPANTS

Source: Picture taken by the researcher during COP15.

As outlined above and earlier in Chapter One, COP15 was reported world-wide as a historic event, 'a unique case' (Yin, 2003) which resulted in:

i. *Attendance by 120 Heads of States and Governments, raising climate discussions to a new level. In essence, climate change negotiations were raised on the highest possible political level.*
ii. *A record number of participants including 10,500 delegates, 13,500 observers and coverage by more than 3,000 media representatives.*
iii. *Intensive negotiations characterised by over 100 official, informal and group meetings among Parties and observers discussing climate change in more than 400 meetings and over 300 press conferences.*
iv. *A vibrant programme of over 200 side events.*
v. *Over 220 exhibits from Parties, UN, NGOs and Civil Society.*
vi. *A total of 23 decisions adopted by the COP and CMP'* (www.unfccc - COP15, 2009).

Appendix 10 gives the COP15 participation statistics as in December 2009. In March 2010 a revised list of participant statistics was issued by the UN, shown as Appendix 11. In addition to the main conference, more than 220 exhibitions and 200 side events took place during COP 15 (UNFCCC, 2010). Fellow researchers and other members of the academic community, NGOs, the private sector, economists, youth organisations, delegates, politicians and negotiation groups presented results of work, opinions and different approaches to specific aspects of climate change.

Furthermore, the Klimaforum09, called the '*People's Summit'*, had approximately 50,000 visitors. Many visitors and participants also attended events, concerts, lectures and roundtable discussions in Fristaden Christiania, the additional location in Copenhagen relating to COP15 and *Hopenhagen* City, a forum where concerts and exhibitions on the town hall square in Copenhagen took place. The name *Hopenhagen* was given as the world-over 'hoped' a favourable decision would be reached at COP15 in relation to the succession of the Kyoto Protocol.

A dedicated website was created for COP15 including a unique logo as illustrated in Figure 14 above (UN, 2009). The UN General Secretary's slogan, '*Seal the Deal'* also became one of the identities associated with COP15.

All Member States of the continent of Africa took part in COP15. A total of 1613 from Africa were officially registered as participants at COP15. The total number of representatives from each Member State is shown in the African Parties Participant Statistics in Appendix 16.

6.2.1 LOCATION OF THE STUDY

The location of the conference where the study was conducted was the Bella Centre, Copenhagen, Denmark. A number of locations within the Bella Centre were used for the purpose of the research. These locations are shown in Table 9.

TABLE 9 LOCATIONS OF THE RESEARCH MEETING VENUES WITHIN THE BELLA CENTRE

Meeting Rooms in the Bella Centre	Name
Tycho Brahe	Main Plenary / COP (CMP) KP
Karen Blixen	Plenary II
Bethel Thorvaldsen	AWG - KP
Hans Christian Andersen	African Group Group of 77 and China
Leonora Christina	African Group – AWG-KP

Source: Compiled by the Researcher

6.2.2 DURATION OF THE FIELDWORK

As previously stated, the official dates for COP15 were from 7th to 18th December, 2009. The duration of the fieldwork for the main study was approximately three weeks, including the weekends. The formal proceedings of the conference commenced on Monday 7th December and concluded on Saturday 19th December, 17 hours after the official closing time originally scheduled. The outcome of COP15 is discussed in more depth later in the chapter.

The researcher commenced the formal gathering of the data at the Conference during the pre-meeting. The pre-meeting commenced on 2nd December and concluded on 6th December with the main conference commencing on 7th December, as stated above.

6.2.3 THE ROLE OF THE RESEARCHER

The researcher was registered as a formal participant at COP15 in the capacity of Special Technical Adviser to the Honourable Minister for Environment for Nigeria. Privileged access was therefore given to all meetings. The researcher whilst registered as a participant for COP15 took the role of a participant-observer in conducting the research. Examples include at the COP15 opening Plenary and closing sessions, the African Ministerial Conference on the Environment (AMCEN) meetings, the meetings of the Committee of African Heads of State and Governments on Climate Change (CAHSGOCC), the African Group meetings, the African Group-KP meetings and the G77 and China meetings.

An in-depth description of the process involved by the researcher to collect the data for the study has been discussed in the preceding chapter. To recapitulate, the researcher conducted 23 semi-structured interviews, 5 of which were conducted during the first week of COP15, with the remaining 17 being conducted during the high level segment. The interviews lasted an average of 55 minutes with the longest taking 1 hour, 30 minutes. Due to the position of these African Leaders, the interviewees often had assistants, security officers and other officials present. The use of a tape recorder was allowed during some of the interview sessions; in other cases the researcher transcribed the interview as the use of a tape recorder was not permitted for security reasons. The list of African Leaders interviewed is attached as Appendix 12.

On occasions, accompanying senior delegates, e.g. Directors, assisted in responding to some of the questions asked by the researcher. All interviews were conducted in English; however a translator was used in some instances for the French-and Arabic-speaking interviewees. The translators were participant members of the African Member State delegation.

Six focus groups were held ranging from four to nine participants. Four focus groups were held during the first week (i.e. focus groups 1, 3, 5 and 6). Focus groups 2 and 4 were held during the high level segment and were the smaller groups consisting of four and five participants respectively. A total of 61 participants in all took part in the focus groups of varying grades of seniority. The list of focus group participants is attached as Appendix 13. The focus group attendees were selected from the official participant list from the UNFCCC secretariat. Some participants were approached following the African Group meetings, mainly from the AWG-KP meetings. The focus groups were conducted in English with a moderator used during the first week of COP15. The moderator was responsible for transcribing, observing group dynamics and guiding the discussions. A tape recorder was used during all the focus group sessions.

All the focus group meetings were held in one of the available rooms within the Bella Centre. However, two of the meetings were held in the Nigerian Delegation meeting rooms.

Chapter Four discussed the research design process in detail; however, a summary of the process employed during COP15 is given in Table 9 below.

6.2.4 Composition of COP15 / CMP5

The conference consisted of the following sessions:-

i. Fifteenth session of the Conference of the Parties (COP15).
ii. Fifth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP5).
iii. Thirty-first session of the Subsidiary Body for Implementation (SBI 31).
iv. Thirty-first session of the Subsidiary Body for Scientific and Technological Advice (SBSTA 31).

v. Eighth session of the Ad hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA8).

Due to the size of the conference, the research was limited to sessions *i* and *ii* above including the African Group meetings relating to the Kyoto Protocol, i.e. the African Group daily meetings and the African Group – AWP-KP meetings including attendance at some of the G77 and China sessions. As stated earlier, the researcher also attended the two meetings of AMCEN and the two extra-ordinary meetings of the CAHSGOCC.

Table 9 below summarises the research design process undertaken by the researcher.

TABLE 13 SUMMARY OF THE RESEARCH DESIGN PROCESS

	Research Process Stages	**Action taken by the Researcher**
1	Development of questions for interviews and focus groups.	The questions were developed from the literature areas relating to strategic decision-making including the process of decision-making under the UNFCCC in order to address the gap identified in the literature. Guides were developed for both the semi-structured interviews and focus groups. Amendments were made to the questions and guide following the pilot and the review by the researcher's academic supervisor.
2	Identification of research participants	The research participants were taken from the formal attendance list of the UNFCCC for COP15. Contact was made with the head of each delegation or appropriate representative advising of the researcher's intention. The participants for the interviews were based on hierarchy so the head of the delegation was identified to be interviewed. If the lead member was not available, the second in command was chosen. The support of the UN and the researchers role as a Special Technical Assistant to the Minister helped in gaining access to senior dignitaries. Furthermore, contacts made during the pre-pilot and pilot was also used in scheduling interviews for the African Leaders. Participants for the focus groups interviews were also selected from the participant list involving a mixture of different grades, i.e. leaders, managerial and technical. Some participants were asked following the African Group AWG-KP meetings.
3	Focus groups conducted	An initial focus group trial run was conducted in Barcelona prior to COP15. The focus group trial run was aimed at rehearsing the feasibility and practicality of undertaking the focus groups during COP15. At COP15, six focus groups were conducted ranging between four and nine participants in each group. A total of 61 participants took part in the focus groups. Ensuring all the participants were on time was one of the challenges faced due to many sessions over-running. Hence, extra time was built into the timing of the focus groups.

	Research Process Stages	Action taken by the Researcher
4	Interviews conducted	Five semi-structured interviews were conducted as pre-runs at the Barcelona climate change talks. At COP15, 23 semi-structured interviews were undertaken mainly during the high-level segment: Five in the first week and 17 during the second week. A comprehensive interview guide was used. Interviews ranged in length from 45 minutes to one hr. 30minutes. Interviews were transcribed and some interviews were recorded using a tape recorder. Questions were asked in the sequence of the interview guide; however the questions generally followed the direction of the discussion.
5	Transcription and review of focus groups and interviews	Most of the interviews were transcribed in addition to being recorded. At the focus groups and interviews information gathered was verbally summarised back and any omissions inserted or deletions made. The review process gave time to clarify any uncertainty in relation to the comments or responses made.
6	Analysis of interviews and focus groups.	The various interviews were analysed using content analysis. The analysis was used to address the research questions.
7	Participant observation	The researcher took part as a participant-observer, having been registered as an official participant to COP15 in the role of Special Technical Assistant to the Minister of Environment for Nigeria. Observations were made on the conduct of proceedings at the various plenary sessions, African Group and informal group meetings in Bangkok, Barcelona and at COP15 in Copenhagen. Attendance at the various pre-meetings in Bangkok and Barcelona enabled the researcher to become familiar with the workings of the UN decision-making processes under the UNFCCC prior to the main study.
8	Documentary evidence	Documents were gathered prior to COP15 at the pre-pilot and pilot in addition to COP15. Examples of documents collected included the official participant list, the Daily Programmes, the daily Earth Negotiation Bulletin (ENB), Third World Network (TWN) newsletter, COP15 newspaper, speeches of the Heads of States and Governments, minutes of meetings, decisions made at various meetings relating to the Kyoto Protocol such as the AWG-KP, the African Group meetings, newspapers, briefs, reports and publications. These documents were used to validate the data from the interviews and focus groups. For example the daily Earth Negotiation Bulletins and Third World Network daily newspapers comprised of an account of the proceedings the day before. References to African countries were used and analysed to valid the data from the interviews.

Source: Compiled by the Researcher

6.3 THE FIRST WEEK OF COP15 AND THE DANISH TEXT

6.3.1 OPENING OF COP15 BY THE HOST GOVERNMENT

This section aims to emphasise the importance of COP15 and the uniqueness of the case. The importance of the role African Leaders played in the decision-making process of COP15 is illustrated by the involvement of the African Leaders during the high level segment. The researcher attended the opening ceremony as a participant-observer amidst extremely high security. Access to the opening ceremony was restricted to high level delegates only and nominated accompanying personnel.

A welcoming ceremony was held on 7thDecember 2009 which was organised by the Government of Denmark to mark the opening of the Fifteenth Session of the Conference of Parties (COP) and the Fifth Session of the Conference of Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP).The opening plenary took place in the main plenary hall, Tycho Brahe. A statement was made by the Prime Minister of Denmark, Mr Lars Lokke Rasmussen. The Mayor of Copenhagen, Ms. R. H. Bjerregard, delivered a welcome address to the delegates. Further statements were made by the Chair of the Intergovernmental Panel on Climate Change, Mr Rajendra Pachaur, and the Executive Secretary of the UNFCCC, Mr Yvo de Boer.

As previously stated, the researcher attended the opening plenary as a participant-observer. This was essential to get a real sense of the historic event. A special pass was obtained to provide full access to various meeting rooms for the researcher. The opening of COP15 in terms of size was significantly larger than the previous meetings attended in Bangkok and Barcelona prior to COP15. Furthermore, the number of attendees was also under-estimated including the security levels due to the presence of many world leaders.

6.3.2 OPENING OF COP15

Following the welcoming ceremony, the COP was convened at the Bella Centre by the President of the COP at its Fourth Session, Mr Maciej Nowicki, and Minister of the Environment of Poland. During the first meeting on 7th December, in the proposal of the outgoing President, the COP elected Ms. Connie Hedegaard, Denmark's Minister for the Environment as the President of the United Nations Climate Change Conference, in line with the decision-making procedures of the UN.

The relevant general statements in relation to the research during the opening of the COP were given by Algeria on behalf of the African Group and Sudan on behalf of the Group of 77 and China. The various statements made by African Leaders in addition to the above statements were collected from the COP15 press office as part of the data. The speeches

were later analysed as part of the data gathered to address the research questions. As part of the African Common Position, Africa agreed to negotiate at three different levels. Represented leaders were nominated as the representatives for the rest of the African Member States for each level as follows:

TABLE 14 REPRESENTATION LEVEL FOR AFRICA AT COP15

	Level of Representation	**African Member State**	**Name and Position of Representative**
i	Heads of States and Governments	Ethiopia	*H.E. Mr. Meles Zenawi* Prime Minister Federal Democratic Republic of Ethiopia
ii	Ministerial Level	Algeria	S.E. M. Cherif Rahmani Minister of Environment - Ministère de l'aménagement du territoire, de l'environnement et du tourisme
ii	Technical Level	Nigeria	*Dr Victor Ayodeji Fodeke* Head of Climate Change Unit Federal Ministry of Environment Nigeria

Source Compiled by the Researcher

6.3.3 The Danish Text

During the first week of COP 15 on 8th December 2012 '*The Danish Text*' was leaked to the public via the UK Guardian Newspaper. The '*Danish Text'* was a secret proposed agreement which was drafted by representatives of Denmark, the USA and the UK. The leaked text was shown to a limited group of selected countries. The African nations were excluded as were most other developing countries. The text was considered as extremely undemocratic by the African Group and G77 and China.

Lumumba Stanislaus Di – Aping (Sudan) and also spokesman for the G77Group and China stated,

> …''*The Danish Text is a dangerous document for developing countries. It goes against everything we have worked up to this conference. It is extremely unfortunate that the person who is supposed to lead negotiations in an impartial manner has committed such a breach of faith and chosen to protect the rich countries' interest instead. It is a fundamental reworking of the UN* 58 *balance of obligations. It is to be superimposed without discussion on the talks' (Guardian, 2009).*

The UN Executive Secretary of COP15, *Yvo de Boer* confirmed that the documents, i.e. the '*Danish Text'*, obtained by the Guardian existed.

> *…''They have part of an informal draft from before the conference that was distributed to a smaller inner group for comments'...''However, the only formal text in the UN process is the one that was presented by the conference chairman on behalf of all parties'* (Aljazeera, 2009).

Moreover, developing countries criticised the Danish COP Presidency for shifting away from the UN negotiation principles and procedures towards an undemocratic and less than transparent negotiation process. The African Group alongside the G77 and China advised that the work on the KP should be continued within the formal AWG-KP decision-making process (COP15, 2009).

In spite of critics of the '*Danish Text'* proposal, many delegates also considered the official negotiation text too complicated for the high level negotiations further adding complications to the decision-making process.

> …''*The text […] is full of brackets – Ministers and Heads of State cannot negotiate based on them*' (COP15, 2009).

Following the leak of the '*Danish Text',* developing country Parties discussed different procedures on how to continue the negotiations and the decision-making processes due to the limited number of days until the commencement of the high-level segment and the required subsequent negotiations. As such, due to the small chance of an agreement being reached based on the complex official negotiation text, countries suspended the negotiations for one day to consult in informal negotiation groups, in particular the '*friends of the Chair*' group, which was established by the COP President to conduct further negotiations. Many countries that were left out of the meeting of the '*friends of the Chair'* claimed the discussions were not transparent, 'although the groups allegedly' made formal steps towards an agreement (TWN, 2009:4).

At the end of the first week, the African Group of negotiators lead by Kemel Djemouai (Algeria) had made a concerted effort to ensure Africa's Common Position was accepted and taken into consideration during the negotiations.

The week ended with a joint meeting of the African negotiators, African Ministers and the African Union on Friday 11th December. The aim of the meetings was to safeguard Africa's interest in relation to the survival of the Kyoto Protocol. A joint text on the AWG-KP was forwarded to the Chair supporting the Kyoto Protocol's second commitment period from 2013 to 2017.

Generally, week one of COP15 for the African Group had been rather difficult, especially for the African Group of negotiators to make progress. This was a result of a lack of firm

commitment on emissions reduction target figures by Annex I countries. The talks were un-necessarily blocked because of vested interests, including the strong desire by some nations to kill the Kyoto Protocol and to refuse the second commitment period. The developed country Parties were focused on weakening the Kyoto Protocol with a view to replacing it.

However, the African Group continued to support the continuation of the Kyoto Protocol into its second commitment period. The various African Group sessions attended by the researcher noted this message being re-iterated amongst the African Party members.

H.E. Commissioner Rhoda Tumusiime speaking on behalf of the African Union during the technical briefing of African Ministers by the African Group of Negotiators on Saturday 12th December, stated:

> *…"Africa should consider imposing sanctions on countries that intransigently refuse to commit themselves to cutting emissions or repairing the damage caused by their actions'.*

In her speech she also said:

> *…"Africa's demand for compensation for the damage caused by global warming generated by developed countries should not be relented. World leaders can and must deliver a deal that will save the climate ...One that is fair to the poorest people and countries that did not cause this problem but that will suffer the most from it… one that is ambitious enough to leave a safe planet for us all and one that is legally binding, that can be monitored and with real targets can be enforced'* (Tumusiime, 2009).

6.4 Week Two at COP15 – The High Level Segment

6.4.1 Opening of the High Level Segment

The welcoming ceremony of the high level segment was held on Tuesday 15th December, 2009 attended by 193 Heads of State and Governments from around the world.Presentations were made by the Prime Minister of Denmark, Mr Rasmussen; the Secretary General of the United Nations, Mr Ban Ki-moon; the President of COP15 and CMP5, Ms. Connie Hadegaared; the Executive Secretary of the UNFCCC, Mr Yvo de Boer and Ms Wangari Maathai, 2004 Nobel Peace Prize Laureate. The opening of the high level segment was also attended by the Crown Prince of Denmark and HRH Prince of Wales. The President welcomed all the Heads of State and Governments, Ministers and Heads of Delegation.

From the opening ceremony and the attendance of numerous world leaders, it was evident that the UN as an organisation had achieved the aim of getting world leaders to COP15 to make a crucial decision with regards to the succession of the Kyoto Protocol, as such reinforcing its uniqueness as a case.

6.4.2 STATEMENT BY AFRICAN MEMBER STATES AND OTHER PARTIES

During the high level segment, statements were made by 167 Parties, of which 52 were given by African Leaders. Furthermore, 85 were given by other Heads of State and Governments, 13 were given by either Vice Presidents or Deputy Prime Ministers, and 58 given by Ministers. 11 were given by party representatives and one given by an observer entity.

The list of the 52 African Leaders who gave statements during the opening of the high level segment is attached in Appendix 14. Copies of the statements were obtained by the researcher forming part of the documentary evidence collected during the study. Various other forms of documentary evidence were also collected as specified in Table 9. Examples include press statements, ENB, TWN, reports on the science of climate change, the UNFCCC, to mention a few. These documents were analysed and used in answering the research questions and to confirm the data collected from the semi-structured interviews and focus groups to 'authenticate and validate' the data collected. The documentary evidence collected was therefore used to address the issues of credibility, transferability, dependability, confirmability and integrity as discussed in Chapter Four.

The high level segment commenced with a film on the impact of climate change; notable was the statement by Archbishop Desmond Tutu:

> *…"All scientific prognoses shows that the continent of Africa will be severely affected if we do not act now' (Archbishop Desmond Tutu, 2009).*

Other 'poignant' statements from the film included:

> *'The World is watching'.*
>
> *'193 Countries gathered in Copenhagen'.*
>
> *'Their decisions affect coming generations'*.

From the researcher's perspective, these statements highlighted the urgency of the problem and the need for world leaders to achieve a positive outcome from COP15. Moreover, the opening ceremony further confirmed the importance and uniqueness of this case study as mentioned above. The uniqueness was again echoed by the opening remarks of the announcer at the event:

> …"*People from all over the world are closely following the events at this climate change conference. Never before have so many people been actively engaged in a conference like this' (*UN COP15 Secretariat Announcer, 2009).

African nations were well represented with the largest Party of delegates from South Africa.

Host Government Informal High-Level Segment

On Friday, 18th December, 2009, at the invitation of the Danish government an informal high level event was convened by the Prime Minister of Denmark. In attendance at the event was the Secretary General of the United Nations and a limited number of Heads of State and Governments; those in attendance are detailed in Table 15 below, as follows:

TABLE 15 INFORMAL HIGH LEVEL MEETING ATTENDEES BY HEADS OF STATES

Name	Official Title
H.E. Mr. Lars Lokke Rasmussen	Prime Minister Kingdom of Denmark
H.E. Mr. Ban Ki-moon	United Nations' Secretary General
H.E. Mr. Wen Jiabao	Premier of the State Council The People's Republic of China
H.E. Mr. Luiz I. Lula da Silva	President Federative Republic of Brazil
H.E. Mr. Barack Obama	President, United States of America
H.E. Mr. Pakalitha Bethuel Mosisili	Prime Minister, Lesotho
H.E. Mr. Alvaro Uribe Velez	President, Colombia
H.E. Mr. Manmohan Singh	Prime Minister, Republic of India
H.E. Mr. Dmitry A. Medvedev	President Russian Federation
H.E. Mr. Myung-bak Lee	President, Republic of Korea
H.E. Mr. Meles Zenawi	Prime Minister Federal Democratic Republic of Ethiopia
H.E. Mr. Jacob Zuma	President, Republic of South Africa
H.E. Mr. Yukio Hatoyama	Prime Minister, Japan
H.E. Mr. Tillman Thomas	Prime Minister, Grenada
H.E. Mr. Fredrik Reinfeldt	Prime Minister, Sweden
H.E. Mr Nafie Ali Nafie	Assistant President, Sudan
H.E. Mr. Jose Manuel Barroso	President, European Commission
H.E. Mr. Juan Evo Morales Ayma	President, Plurinational State of Bolivia
H.E. Mr Hugo Chavez Frias	President, Bolivarian Republic of Venezuela

Source: Compiled by the Researcher from COP15

Figure 17 below shows the arrival of President Obama to the informal high level event organised. Of the 192 world leaders who attended COP15, only 16 leaders were invited to the informal high level meeting. This raised concerns amongst members of the African Group, due to the exclusion of a number of African Leaders.

FIGURE 17 THE ARRIVAL OF PRESIDENT OBAMA AT THE HIGH LEVEL SEGMENT

Source: UNFCCC COP15 Media Centre

Three world leaders from the continent of Africa were selected to attend this meeting, *President Jacob Zuma* (South Africa), *H.E. Mr. Meles Zenawi*, *Prime Minister* (Ethiopia) and *H.E. Mr. Pakalitha Bethuel Mosisili, Prime Minister* (Lesotho).This meeting convened late; however, the purpose was to look beyond Copenhagen and find a way of addressing the challenges of climate change in the future. From the researcher's perspective, it appeared from the media coverage and various bulletins distributed by interest groups and NGO's that a likely legally binding agreement was not going to be achieved. This factor is discussed in more detail in the subsequent analysis chapters. The importance of the high level segment from the perspective of the research stems from the fact that all the leaders from the continent of African took part in the various plenary sessions, both formal and informal as part of the decision-making process of the UNFCCC, although the majority were excluded from the informal high level meeting.

6.4.3 General Deliberations during the High-Level Segment

The controversy over the leak of the '*Danish Text'* and the continued general uncooperative nature of the developed countries resulted in a walk-out by the African Group on December 14th 2009. The walk-out of the African Group from the negotiations generated support from most developing nations and the public world-wide. The conference proceedings were held in abeyance until the following day.

The African Group's Technical Lead – Dr Victor Fodeke (Nigeria) at a Press Conference by the African Group stated:

…''*They are playing with numbers while Africa is dying'* (Fodeke, 2009).

FIGURE 18 AN AFRICAN GROUP PRESS CONFERENCE

Source: Taken by the Researcher during COP15

The essence of the walk-out was to ensure Africa's voice was heard as part of the negotiation process and to push developed countries to meet their emission reduction targets. Furthermore, the papers submitted by the African Group based on the work on the African Group AWG-KP was not submitted formally to the COP resulting in the Group feeling that the time spent trying to negotiate a fair and ambitious agreement for Africa had been a wasted effort. After a number of informal discussions with the African Group, the negotiations resumed with a promise that more emphasis would be put on the continuation of the Kyoto Protocol.

At the 12th meeting of the CMP held on the 18th – 19th December 2009, the President informed the Parties that consultations were required with a board group of Heads of State and Government and other Heads of Delegation attending the conference during the high level segment. However, through these consultations, the *Copenhagen Accord* was developed. The Copenhagen Accord is attached as Appendix 15.

On Friday 18th December, 2009, the final day of the Conference, the international media reported that the climate talks were '*in disarray*'. The media also reported that in lieu of a summit collapse, a '*weak political statement*' was anticipated at the conclusion of the conference – (BBC, 2009).

6.5 THE DECISION OUTCOME OF COP15

The closing plenary of COP15 started at 3:00 a.m. on 19th December, 19 hours after the official ending of COP15. The late hours had begun to take its toll on most Party delegates as

shown in Figure 19 below. Member State participants could be seen to be sleeping, whilst the deliberations were going on. The Plenary session was called '*The Chaos-Night of Copenhagen'* and was opened by COP President Rasmussen, who asked the COP to adopt the proposal.

FIGURE 19 LONG NIGHTS ASSOCITED WITH THE COP15 DECISION-MAKING PROCESS

Source: Obtained by the Author from the COP15 Media Centre

The *Copenhagen Accord* was the formal outcome of two years of intense negotiations that had taken place under the UNFCCC following the Bali Action Plan in 2007. As previously mentioned, the *'Bali Road Map'* mandated a follow-up agreement to the Kyoto Protocol based on the COP13 negotiations in Bali, Indonesia in 2007. The Parties committed themselves to adopting a legally binding agreement by 2009 at COP15 to replace the Kyoto Protocol, concluding in 2012 with the aim of implementing emission reduction targets for the post-Kyoto period (UNFCCC, 2007).

In presenting the *Copenhagen Accord*, the President of COP noted that the text of the COP and CMP version of the *Copenhagen Accord* was the same version Parties had been requested to reflect on in their respective regional groups. Parties were requested to report back to the President of COP with a view to determining what action should be taken on the *Copenhagen Accord*. Following the proposal by the President, statements and points of order were made by 40 Parties including one speaking on behalf of the African Group, the Alliance of Small Island States (AOSIS), the EU and the Least Developed Countries.

The African Group, in addition to many other Parties, expressed extreme concern regarding the decision process by which the *Copenhagen Accord* was negotiated and presented. The African Group expressed their formal objection to the *Copenhagen Accord* for reasons of

substantive content and the procedures undertaken in relation to the processes involved in the negotiations. Having heard the statements by the Parties, the President noted there was no consensus to adopt the Copenhagen Accord and proposed a brief session to hold informal consultations with Parties.

Following the extensive consultation with Parties, the President proposed that a decision whereby the COP '*takes note* of' the *Copenhagen Accord*, only was made on the 19th December, 2009. The President also stated that the decision would be the Copenhagen Accord itself including the list of Party members agreeing to the *Copenhagen Accord*. On this basis the COP adopted the decision.

The names of Parties agreeing to the *Copenhagen Accord* at COP15 were listed in the Chapter of the *Copenhagen Accord*. The lists of countries were left open until the report of the session was finalised.

Following the adoption of the decision and clarification of the *Copenhagen Accord*, statements were made by representatives of 27 Parties, including one speaking on behalf of the African Union, the African Group, in addition to AOSIS, EU and its Member States. A statement was also mode by the Secretary-General of the United Nations, Mr Ban Ki-moon. The various views and the dynamics of African Leaders prior to and following the outcome of COP15 in relation to the African Common Position is discussed in more detail in Chapter Eight.

6.6 CONCLUSION

COP15 did not achieve a binding agreement as was hoped by the world at large. A thirteen paragraph political accord was negotiated by approximately 25 member Parties with USA, Brazil, China, South African and India dictating the main content of the *Copenhagen Accord*.

Unfortunately the *Copenhagen Accord* does not have a legal status, which was hoped for by the African Group, and is therefore non-binding. Countries may support the content of the Accord, but all actions have a voluntary and not an obligating character. Therefore the COP15 decision outcome did not meet the expectations of African Leaders who pushed for a legally binding agreement. The *Copenhagen Accord* was only noted by the COP and bore no reflection on what was negotiated at the various technical sessions of the African Group. Furthermore, it was considered as an external document and not negotiated within the UNFCCC official process, a major criticism of the COP15 UNFCCC decision-making process.

However, the *Accord* was notable in that it referred to a collective commitment by developed countries for new and additional resources, including forestry and investment through international institutions. In reality, the proposed extension to the Kyoto Protocol had many unresolved issues for future COP meetings and continued negotiations on the world stage.

This chapter has discussed COP15, a unique single case study undertaken for the research. It analyses how the research was conducted, the selection criteria of the participants, the semi-structured interviews and focus group questions, and what the questions aimed to address in relation to the main research question and sub-questions. The manner in which the interviews and focus groups were conducted by the researcher was also analysed in addition to the researcher attendance at a number of meetings such as AMCEN, the African Group, AWG-KP and CAHOSGCC. The chapter also analyses the collection of other sources of data in the form of documentary evidence and concludes with the outcome of COP15.

The next chapter analyses the data and draws conclusions from the research findings.

CHAPTER SEVEN DATA ANALYSIS AND RESEARCH FINDINGS

7.1 INTRODUCTION

This chapter presents and analyses the data collected from the case. The various forms of data collected from the study were analysed using content analysis. The decision-making processes used by members of the African Group relating to Africa's Common Position on the succession of the Kyoto protocol are also discussed. It also begins to address the research questions in relation to the outcome of COP15, more specifically the *Copenhagen Accord*. The various elements of the *Accord* and Africa's general position on the outcome of COP15 as noted during the Conference are also highlighted. The team dynamics of the various African Member States and the implication in relation to the decision-making processes and the *rationality* of the decisions made are also debated. The chapter concludes with an overarching summary.

7.2 ANALYSES OF THE DATA

An immense amount of data was collected from the different data collection techniques. The triangulation of methods was employed to lend rigor to the research data collected and to address the criticisms of the case study methodology. The transcripts of the semi-structured interviews, focus groups and additional notes by both the researcher and moderator equated to approximately 830 pages of text. Relevant documentary evidence collected from the study amounted to 513 different items. Analysing the data was a complex and slow process. The bulk of data collected was first categorised into broad categories and subsequent sub categories. This is shown in Tables 6 to 9. Patterns, linkages and relationships between the different themes relating to the research questions were then identified. Data which could be used was put into a separate category and classified as other.

The research participants for the semi-structured interviews were identified and assigned unique ID's as L1 to L23 with a designation assigned against the ID to identify the role of the leader. This assisted the researcher in recalling comments made by various interviewees and to relate the interviewee with the African Member State. The designation and the number of leaders of the same designation are shown in Table 12 below.

The analysis revealed that the seniority and experience of the participants contributed to the depth of knowledge on the concept of climate change.

TABLE 16DESIGNATIONS OF PARTICIPANTS

	Designation / Role	Category	No
1	Presidents	P	1
2	Vice President	VP	1
3	Vice President Senate	VPS	1
4	Minister	M	22
5	Deputy Minister	DM	5
6	Secretary General / Permanent Secretary	SG	3
7	Ambassador	Am	2
8	Director General	DG	11
9	Director / Head of Unit	Dir	6
10	Deputy Director	DD	2
11	Special Advisor / Technical Officer	SA	4
12	UNFCCC Focal Point Representative	FP	4

Source: Developed by the Author for the research

The focus groups were identified based on the number of the focus group, i.e. Focus Group 1, Focus Group 2 through to 6. The names and designations of the various focus group participants are shown in Appendix 13.

7.2.1 The Decision-making Process of the African Common position

Africa's vulnerability to climate change and the challenges that this phenomenon poses to the continent were well recognised by the African Leaders and the focus group participants A large number of the leaders had a general understanding of the concept of climate change. and there was a strong recognition that the impacts of climate change varied across the continent. However, the in-depth knowledge in terms of the intricacies of the issues to be discussed was not evident amongst the African Leaders.

Interview discussions with the African Leaders also revealed that at the Twelfth Session of AMCEN in June 2008 there was an emphasis on the need for Africa to participate actively and strategically in the negotiations on a global climate change agreement. This was to ensure that the region's interests and requirements were adequately met. Furthermore, given the intensive negotiations that were required to achieve a desirable outcome by the end of 2009 at COP15, the Leaders were able to recall that the AMCEN meeting stressed the need for Africa to identify the key political messages to inform the global debate, the details of the negotiations and to clearly define the decision-making processes required. This event marked the commencement of Africa's decision-making process in relation to COP15.

Of the Leaders interviewed, 15 of the Environment Ministers had attended previous UNFCCC COP meetings at various times. Of all the participants, 43 had attended at least one UNFCCC COP meeting or climate change talks prior to COP15. 21 participants had attended at least two meetings of COP with only 7 of the total number of participants attending three or more meetings.

Participants also reported the importance of financial commitments sought from the international community and the actions that African countries would require to address and combat the issue of climate change.

One participant in recalling the decision-making processes of African Leaders stated that:

> *…"the Bali Action Plan offered Africa the opportunity to build consensus on the complex issues of climate change and sustainable development. This would benefit the continent'* (Leader A).

Some leaders also stressed that certain Member States had recognised the importance of an African consensus on ways to enhance the implementation of the UNFCCC and its Kyoto Protocol beyond Copenhagen, further adding that this consensus was reached at an African Union Summit in 2008 and it should be based on:

> *…'the established principles of equity and common but differentiated responsibilities and respective capabilities'* (Leader B).

Participants were able to respond to the question '*How does the decision-making process start within the African Group on climate change?*' In riposte, Leaders reported that the UNEP, in collaboration with AUC, the Secretariat of the African Union's New Partnership for Africa's Development (NEPAD), ECA, AFDB and other relevant governmental institutions organised a series of preparatory meetings for Africa's climate change negotiators. The aim was to provide the African negotiators with substantive technical and policy analysis support to strengthen their preparations for the Fourteenth and Fifteenth Sessions of the Conference of the Parties to the UNFCCC and the fourth and fifth session of the meeting of the Parties to the Kyoto Protocol.

The detailed trajectory of events and specific meetings were mainly commented upon by the Environment Ministers, UNFCCC focal point leaders and the technical leads.

More specifically, some Ministers were able to recall the decision made by AMCEN. This meeting in May 2009 was aimed at complementing that of the first Joint Annual Meetings of the AU and the UN's Economic Commission for Africa (ECA) Ministers in November 2008 which was then reinforced by the decision of the African Union Summit in January 2009 on Africa's Common Position on climate change.

The leaders interviewed also stressed the need for more synergy in the implementation of climate change decisions, suggesting the need for and better collaboration on a comprehensive framework of African climate change programmes with the aim of consolidating existing and new intergovernmental decisions, including initiatives and programmes at the local, sub-regional, regional and national level.

7.2.2 AFRICA'S DECISION-MAKING PROCESS AND RESOLUTIONS ON CLIMATE CHANGE

Leaders were asked to describe '*How Africa's decision-making strategy had emerged?'* The responses varied, as some Leaders were able to give detailed accounts whilst others were vague in their response. This was also evident in the focus group discussions, as whilst there was an in-depth appreciation of the process, only a third of the groups could give a detailed account of the process involved as a group. However, in a number of the groups, clarity was sought from each other.

The analysis revealed that following the Twelfth Session of AMCEN, UNEP, in collaboration with AUC, ECA and other African regional and sub-regional actors, set out to implement Decision 2of the AMCEN meeting held in Nairobi in 2009. The decisions were for Africa to:

i. *Prepare towards the development of a common negotiating position on a comprehensive international climate change regime beyond 2012; and*
ii. *The development of a comprehensive framework of African climate change programmes.*

In essence, Africa's decision–making process commenced well in advance of COP15. Regional and sub-regional discussion had commenced in 2007. A number of sessions were held with the negotiators at various international and regional meetings in Accra in August 2008, Algiers in November 2008, Poznan in December 2008 and Bonn in March 2009, among others. Accordingly, interviewees reported that these meetings enabled African Leaders to better understand the issues under negotiation and the concerns and issues at stake for Africa, and the thinking of the developed Annex I nations.

Participants stressed the importance of the Algiers meeting in November 2008. The meeting comprised a preparatory session for UNFCCC focal point members and negotiators and a ministerial segment. It served as a preparatory forum for the African group of negotiators for COP14, which took place in Poznan, Poland in December 2008. The document entitled '*African Climate Platform to Copenhagen*' was an important outcome of the meeting. Participants highlighted the report built on previous positions of the African Group since Naivaisha, Kenya in 2006, and stipulated an African position on the different issues that were under negotiation in Poznan. The ministerial segment was used to adopt the *Algiers Declaration on Climate Change.*

Interviewees were asked to explain '*How leaders get involved'* and '*What structures are used to make decisions on climate change by the African Leaders under the UNFCCC in relation to the Kyoto Protocol*?'

Leaders interviewed discussed a series of events held on climate change and Africa's process for combating climate change in 2009, notably the meeting in Nairobi, Kenya from 25th to 29th May 2009 at which various events were organised to discuss a Common African Position. A ministerial session of AMCEN as part of the various events was held on 29th May 2009, while an expert segment consisting of a meeting of the African High-Level Expert Panel on Climate Change was held from May 25th to May 26th 2009.

The interviewees reported that the outcomes of these sessions were also submitted to the Thirteenth Summit of the African Union in July 2009 in Sirte, Libya for consideration and endorsement. The interviewees in responding to the question relating to **'***the structure used to make a decision on climate change by African Leaders'* cited the meeting in Sirte, Libya stating that the following key decisions were made which included:

- The approval of the Conference of African Heads of State and Governments on Climate Change (CAHOSCC). This group comprised the following:
    - Algeria
    - The Republic of Congo
    - Ethiopia
    - Kenya
    - Mauritius
    - Mozambique
    - Nigeria
    - Uganda
    - Chairperson of the AU
    - Chairperson of AUC
    - Chairperson of AMCEN.
- The Approval the Algiers Declaration (May 2009) on *'African Common Platform to Copenhagen* 'to serve as a platform for the Common African Position on Climate Change.
- Requested CAHOSCC, all AU Ambassadors and the negotiators to make use of the approved African Common Position on Climate Change.
- Authorised the AU accession to the UNFCCC and the Kyoto Protocol.

Leaders stated that it was in the context of implementing the above decisions that the AUC sought to convene the First Meeting of the CAHOSCC.

The decisions of the AU Summit regarding the climate change negotiation structure was premised on the limitations of the African negotiating structure and influence in international decision-making on climate change as Africa had not been able to achieve optimal results for the continent in combating climate change (UNEP, 2009).

Participants were able to clearly identify the impacts, the particular needs of Africa to address climate change and the characteristics that influence decision-making. More specifically, the questions were: *'What are your views on the impacts of climate change?', 'What do you consider to be the particular needs of Africa to address climate change in the decision-making process?', and 'What do you consider to be the key characteristics that influence decisions in relation to climate change?'*

A number of impacts were recorded from the participants with regards to climate change and Africa. The main impacts identified were: -

- Adverse impacts on health and delivery of social and economic services
- More outbreaks of vector borne diseases
- Damaged and degraded infrastructure
- Threatened human settlements and human life
- Destroyed biodiversity and damaged ecosystems
- Soil erosion and degradation
- Floods and droughts as a result of sea level rise
- Emergence of zoonotic diseases
- Political instability
- Security unrest as a result of migration
- Food insecurity as a loss of agriculture due to prolonged droughts.
- Loss of arable land.

The above issues highlight the concerns of African Leaders about the impacts of climate change. Some participants stated

> *…''Africa is one of the most vulnerable regions in the world in relation to the impacts of climate change' (*Interviewed Leader).

Other statements made include:

> *…''Africa contributes little to greenhouse gas emissions. But will seriously suffer from the undesirable impacts of climate change'* (Focus Group Participant).

> *…''the impacts on Africa are significant and should not be under-estimated. Africans are already suffering and are already at a historical disadvantage. We do not have the cooperation, the political will power or the influence as a continent to impact the decision-making outcome here at COP15' (*Focus Group Participant).

Participants felt that in order to address the impacts of climate change, Africa needed to save the Kyoto Protocol and obtain additional and 'new' financial assistance from Annex I countries. Other requirements included technological development, cooperation and co-ordination amongst African Member States to provide an enabling policy framework to facilitate adaptation and mitigation, awareness campaigns, increased technical capacity, and the strengthening of institutional climate data and record keeping.

With regard to the '*characteristics that influence decision-making'*, participants focused on the influence and power of the developed nations and the emerging economies such as China, Brazil and India.

One of the key characteristics also identified was the dismal coordination of the African negotiation process. This factor was also reiterated by the Africa Union Commission (AU, 2009). According to the AU there has not been a visible continent-wide political leadership on climate change negotiations in the UNFCCC process (AU, 2009). It was further recognised by the African Union that the technical competence of the negotiators needed to be backed with the political weight at the highest level in the continent to have the desired impacts at a global level (AU, 2009).

Secondly, the positions taken by the AU Assembly of Heads of State and Governments needed to be interpreted technically by the negotiators and taken with the seriousness it deserves (AU, 2009).

The question on leadership buy-in generated a range of responses. The question '*Do you feel there is sufficient leadership buy-in at the strategic level?'* intended to explore whether leaders were committed to making strategic decisions to address climate change at the regional, national and international levels.

A number of the leaders stressed commitment to making decisions which were aimed at addressing climate change. For example, some interviewees spoke on the 1st session of the CAHOSCC which produced the first-ever AU Summit key political messages on climate change from the continent. These messages were widely distributed within Africa and across the rest of the world.

Moreover, participants reported that there was a close alignment of technical positions being negotiated by the African Group to the political messages from the continent, especially from the CAHOSCC. Examples cited included the '*Common Key Political Messages on Climate Change from Africa*' which was approval by the CAHOSCC. Secondly, participants recalled the press release on the African Common Position on Climate Change negotiations in the run up to COP 15 to demonstrate the commitment of African Leaders.

Questions were asked of leaders and participants of the focus groups whether the '*decisions made by the African Group followed a process'* .The consensus was that the African Group of negotiators prior to and currently at COP15 followed a structured process within the framework of the UNFCCC. Examples cited were the AWG-KP meetings, the parts of which jointly, with the African Group umbrella meeting, feeds into the AWG-KP.

Interviewees also cited the African Common Position on Climate Change, a major decision involving African Leaders, CAHOSCC, African Member States, the AU, the African Group of negotiators and the wider African Group. Participants were able to describe in detail the three distinct elements of the African Common Position on Climate Change.

First, concerning the decisions of the AU Assembly on climate change, it is noteworthy that these decisions were based on many processes in the continent, e.g. the Conference of AMCEN, Conference of African Ministers of Finance and the AU Executive Council.

Second, participants noted the up-dated Algiers Declaration dated 29th May 2009 on the *'African Common Platform to Copenhagen'.* This informed the Algiers submissions to the UNFCCC negotiations on behalf of the African Group of negotiators, which was approved by the AU Summit. Appendix 9as previously stated captures key elements of Africa`s Common Position as part of the Nairobi Declaration on the African Process submitted to the UNFCCC.

The third element of the decision-making process involved the final submission from the African Group of negotiators to the UNFCCC negotiation. Participants stated that submission reflected the decision-making processes involved and the evolving positions in the continent on Africa's position. This document was used by the African Group of Negotiators at COP15.

Some of the interviewees also recalled the special technical briefing of African Ministers of Environment and experts on some topical climate change issues pertinent to Africa's preparations for Copenhagen which was held on 28th May 2009 as mentioned above. All these events related to the implementation of AMCEN Decision 2 and were preceded by an AUC meeting of African negotiators on 14th May 2009 indicating a structured process. A meeting of the African negotiators organized by the UNFCCC secretariat in collaboration with UNEP was also mentioned which was held from 23rd to 24th May 2009.

7.2.3. The Contribution of the Economic Commission for Africa to the decisions

Furthermore, interviewees stated that as part of the decision-making processes and in preparation for the Algiers meeting in November 2008, the ECA commissioned technical experts to lead discussions on the nature of the new climate agreements, the global process, new concepts, the shared vision, sectoral approaches and the possible elements of an

enhanced institutional architecture, including access to technology and intellectual property rights.

Interviewees also stated that as part of the decision-making processes and to demonstrate buy-in of the 'African Leaders' UNEP's Regional Office for Africa (UNEP-ROA), ECA, in collaboration with the Organization for Economic Cooperation and Development's African Partnership Forum (OECD-APF), commissioned a technical paper and policy brief on financing climate change in Africa specifically for policy-makers and negotiators. The technical paper served as a background document for the high-level experts' meeting, and also fed into the deliberations of the third financing for Development Conference on climate change, which was held in Kigali, Rwanda from 21st to 22nd May 2009. The policy brief informed Finance and Environment ministers and policy-makers of the climate change finance debate, presenting different funding options for consideration, and made recommendations on the possible way forward at COP15.

Participants noted that given climate change transcends the environmental sphere and is also viewed as a developmental issue, it was important for finance, planning and economic development ministers also to be well informed, and to understand the on-going discourse in the global climate change decision-making arena. Participants stated that this was to ensure they could effectively accompany environment ministers in the negotiation and decision-making process.

Some participants reported on the activities of the ECA which hosted the African Pre-Conference of the Parties meeting in Addis Ababa in October 2009. The ECA led on the development of a Climate Change Policy for Africa. The policy built on elements identified during the five sub-regional consultations on the framework of programmes on climate change organised by UNEP in response to AMCEN Decision 2 mentioned above.

7.2.4 AFRICAN SUB-REGIONAL CONSULTATIONS RELATING TO DECISIONS

In addition to the activities on the international negotiations calendar, participants discussed several consultations and events on climate change which were organised by various African intergovernmental organisations to complement the regional process.

Examples cited included the Ministerial Council of the Central African Forest Commission (COMIFAC)held in Bangui, Central African Republic from 9th to 11th September 2008, during which a special ministerial session on Reducing Emissions for Deforestation and Forest Degradation (REDD) was organised. The session culminated in the Bangui Declaration on a Common Position on the negotiations towards a post-2012 climate agreement relative to REDD.

The Economic Community of West African States (ECOWAS) Sub-regional Dialogue on Climate Change was held in Cotonou, Benin from 18th to 22nd October 2008. The meeting deliberated on climate change adaptation and mitigation and discussed, inter alia, the possible adoption of a climate change policy for the sub-region. The objective of the policy was to provide the sub-region with a framework and an integrated climate change management plan in order to build the capacity of West African countries to meet climate change challenges.

In March 2009 ECOWAS organised another workshop in Banjul, the Gambia, to deliberate on a sub-regional programme aimed at ensuring that population, economies and governments in the ECOWAS sub-region were constantly and effectively adapting to climate change.

The Common Market for Eastern and Southern Africa (COMESA) Ministers of Agriculture and Environment also met in Nairobi, Kenya on 7th November 2008 to deliberate on how the region should address climate change challenges. The meeting adopted the Nairobi Declaration on climate change which advocated for the expansion of eligible categories of activities to benefit from carbon credits and other international incentives in a post-2012 climate treaty to include sustainable land management, including sustainable agriculture, sustainable forest management, afforestation and reforestation, thereby enabling '*greener agriculture'* and promoting agricultural productivity in a way that improves resilience and adaptation to climate change. Furthermore, participants reported on COP14, held in December 2008, and that COMESA, the East African Community (EAC) and the Southern African Development Community (SADC), launched the African Climate Solution – A REDD-AFOLU (carbon sequestration through agriculture, forestry and land use) Bio-carbon Coalition.

7.2.5 INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS

The primary data collected in addition to the documentary evidence collected during the study revealed that the decision-making processes of African Leaders was fairly structured and clear, with many meetings, conferences and events held. A series of international meetings were also held as identified in Chapter Three. These meetings under the UNFCCC were set in order to advance the climate change negotiations prior to COP15. The schedule of meetings under the UNFCCC negotiations in relation to the Kyoto Protocol in line with the decisions of the BAP leading to COP15 is given in Table 11 below. All these meetings were attended by members of the African Group. The attendance by African Leaders at UNFCCC meeting prior to COP15 is discussed in Section 7.4 below.

TABLE 11SCHEDULE OF MEETINGS FOR THE UNFCCC COP15 NEGOTIATIONS

2008	
Date	***Location***
31st March – 4th April	Bangkok, Thailand
2nd – 13th June	Bonn, Germany
21st – 27th August	Accra, Ghana
2nd – 13th December	Poznan, Poland
2009	
Date	***Location***
29th March – 8th April	Bonn, Germany
1st – 12th June	Bonn, Germany
10th – 14thAugust	Bonn, Germany
28th September – 9th October	Bangkok, Thailand
2nd – 6th November	Barcelona, Spain

Source: Compiled by the Researcher from documentary evidence.

7.3 THE ISSUES OF CONCERN FOR THE AFRICAN GROUP

The question '*What do you view to be the main concerns of the African Group?'* also generated various views and comments from a number of the participants. It was evident that there were a number of concerns given the impacts and challenges faced by the African continent. Leaders noted that African countries were concerned about the slow pace of the implementation of the UNFCCC, mainly because Annex I Parties had not met their obligations under the Convention. Whilst countries were emphatic about the damage caused to the global climate by developed countries and about the consequences for developing countries, particularly African countries, which have contributed less than four per cent (4%) of global GHG emissions, a member of the Focus Group stated:

> *…"Africa's needs stem from the past and current actions of developed countries, which should pay for Africa's adaptation actions and all other actions that are needed to be undertaken due to the impacts of climate change'*(Focus Group Participant).

Leaders were, as such, concerned that the objectives and principles of the Convention, particularly the '*principle of common but differentiated responsibilities and respective capabilities*', are being flouted by developed country Parties**.**

Other participants stated that the provision of finance, technology and capacity-building to developing countries, including African countries, is a binding commitment for developed countries under the Convention, which must be honoured.

Participants felt strongly that the impacts of climate change are being felt, as evidenced by the increasing frequency of severe weather-related events and consequences. Countries have prepared national adaptation programmes of action, yet according to African Leaders the resources for implementation have not been forthcoming. It was felt that mitigation has been given more priority than adaptation, which is central to Africa's climate change interventions. Furthermore, it was viewed that adaptation interventions have largely been project-based and countries expressed the need for a programme approach to adaptation interventions rather than piecemeal projects.

However, it was felt during the various interviews and focus group discussions, that no matter the level of adaptation, gains made could be eroded if emissions continue unabated. Therefore, African Leaders were concerned that in spite of the entry into force of the Convention since 1994, emissions of developed country Parties have continued to rise and felt that the continuation of the Kyoto Protocol would ensure the adoption of quantified emissions reduction commitments on the part of all developed country Parties. Furthermore, the African Leaders stressed that the extent to which Africa undertakes mitigation actions depends on support provided by the developed country Parties.

Capacity-building was another important factor stated. This was due to Africa's *'weak institutional, technical, technological and negotiating capacities*' (AUC, 2009:4). Participants stated that many capacity-building initiatives had been undertaken in Africa but their impact remains unfelt. Some African Leaders suggested a learning-by-doing approach to capacity-building.

Technology transfer was another issue identified by the participants. Technology transfer was seen as essential to effective climate change mitigation and adaptation actions. Yet, participants felt that technology transfer to Africa had been hampered by propriety issues, and patent issues. The need for Africa to scale up on indigenous and traditional knowledge and technology in climate change adaptation and mitigation was recognised and postulated.

Finance was a sticking point and controversial issue. Discussions and documentary evidence revealed that funds established under the Convention are based on voluntary contributions by developed countries, but most of the funds pledged have not been deposited (UN, 2009). The widely acclaimed Adaptation Fund under the Kyoto Protocol is yet to be operational. There have been a proliferation of multilateral and bilateral funding mechanisms, yet available funding is inadequate and leaders reported that African nations had had tremendous difficulties accessing these mechanisms (IISD, 2009). Furthermore, participants noted that the proliferation of funding mechanisms increased transaction costs for Africa, which introduced

unnecessary intermediaries, and conditionalities that negate the Parties Declaration on Aid Effectiveness to which donors have subscribed. In addition, mechanisms outside the Convention compete for funds with those operating under the Convention.

Participants felt that the Clean Development Mechanism (CDM), though generating billions of dollars, was not working for Africa (AU, 2009) but was more favourable to Asian countries and the Far East. Documentary evidence revealed that approximately only 2 per cent of CDM projects are located in Africa (APF, 2010).

7.4 ATTENDANCE OF LEADERS AT UNFCCC EVENTS

In response to the questions '*How many conferences of party meetings under the UNFCCC on climate change have you attended? and 'How many African Group meetings have you attended?* there appeared to be a strong correlation with the number of years participants had been in their role. Whilst this was not a question asked of interviewees, from the various focus groups and interviews this was evident. Participants who had been in their role longer than three years had attended more than two COP meetings. Others reported that COP15 was their first attendance, as they had only just come into their role. A number of the African Leaders advised that their roles are often changed after a period depending on the needs of the ministry, government or agency or following a promotion.

The interviews and focus groups also revealed that leaders who had been in their roles longer had a stronger depth of knowledge. As such, whilst the generic aspects with regards to climate change and the impacts of climate change were known, not all leaders could recall or clearly state the decision-making process of the African Group relating to the African Common Position in depth. Whilst the process was clear and structured, the knowledge of the participants in relation to the actual process varied.

In terms of attendance, three leaders had attended more than four COP meetings. The average number in terms of attendance amongst the participants was two meetings.

Another problem resulting in the low attendance at COP and other UNFCCC meetings related to limited funding and resources available. A number of leaders explained that resources were limited and as such some countries were unable to send delegates to attend all the necessary meetings due to funding. Furthermore, the continuity of individuals and expertise in technical roles such as climate change was also very limited. As such, Africa as a continent, was suffering from limited technical capability in addressing the challenges of climate change. Furthermore, at the international level, due to Africa's inadequate presence, limited influences on the outcomes of decisions were being achieved. The Common African Position was seen as a positive move forward by most of the participants.

7.5 AFRICA'S COMMON POSITION

Africa's Common Position was a positive leap forward in the international arena for the continent in terms of decision-making in relation to climate change and negotiations.

The African group of negotiators submitted their position to the UNFCCC on the key elements of a negotiation text for COP15.The text of Africa's Common Position was based on the African Union of the Algiers Declaration on Climate Change approved on 19th November 2009 which was subsequently amended to the Nairobi Declaration on the African Process on Climate Change by AMCEN in May 2009.

Selected elements of the submission as it relates to the research based on the key principles of the Convention are extracted below.

7.5.1 SHARED VISION

The African Group, emphasised that the shared vision should:

- *Unite the countries of the world in further building an inclusive, fair and effective climate regime, recognising that solving the climate problem will only be possible if it is undertaken in the context of developing countries' need for development space.*
- *Address the full effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012.*
- *Address all the building blocks of the Bali Action Plan.*
- *Reflect the urgent need for new and predictable means of implementation, including, in particular, support for financing, capacity-building and technology for developing countries.*
- *Include a long-term goal of halving global greenhouse gas (GHG) emissions relative to historical levels by mid-century, underpinned by ambitious mid-term targets, based on sound science.*
- *Address gender equity, and the special needs and interests of the youth* (AMCEN 2009:3).

7.5.2 ADAPTATION AND MEANS OF IMPLEMENTATION

The African Group stated that international cooperation on implementation of adaptation action is urgent on the continent and must be given the same level of priority and emphasis as that of mitigation. This resulted in a call for a comprehensive and action-oriented programme on the potential implementation of adaptation actions. The African Group's position is that the programme must implement, support and facilitate urgent and immediate adaptation action that reduces vulnerability and builds the resilience of developing countries to impacts that are

already being experienced, such as extreme weather conditions. The African Group specified that this goal should be achieved by the following:

- *Providing access to means of implementation (finance, technology and capacity building) for urgent and immediate adaptation action at global, regional and country levels.*
- *Implementation of urgent and immediate adaptation action at national, regional and global levels.*
- *Promoting coherence and facilitating linkages with other international, regional and national programmes, bodies and stakeholders that are implementing adaptation and related activities, including the Nairobi Work Programme. They also emphasised that this should be undertaken in keeping with the principle and commitments of the Convention' (*AMCEN, 2009:4).

7.5.3 Mitigation and Methods of Implementation

The African negotiators also insisted on maintaining the separation between mitigation commitments by all developed countries and mitigation actions by developing countries (AMCEN, 2009).

On the commitments of developed countries, the African Group called for the establishment of '*quantified emission reduction commitments for all developed country Parties'* (UN, 2009).

The term *'measurable, reportable and verifiable '*refers to legally binding quantified emissions reduction commitments that are absolute, and that are verified for compliance (TWN, 2009). In numerical terms, Annex I Parties should reduce their greenhouse gas emissions by at least 40 per cent below 1990 levels by 2020 and by at least 80 per cent to 95 per cent below 1990 levels by 2050, '*in order to make a meaningful and fair contribution to achieving the lowest level of stabilisation'* (IPCC, 2007) as assessed by the Fourth Assessment Report of the International Panel on Climate Change (IPCC, 2007).

On the actions of developing countries, the African Common Position requested that *measurable, reportable and verifiable* is applied to mitigation actions by developing countries that represent relative reductions or 'substantial *deviations from baseline'*. Developing countries should be able to choose from voluntarily registered nationally appropriate mitigation actions, including sustainable development policies and measures, programmatic CDMs and others. Furthermore, a REDD-Plus mechanism should be designed in such a way as to accommodate different national circumstances and respective capabilities. The African Common Position also requested adequate, predictable and sustainable funds from a variety of sources, including global carbon markets, as the availability of funds is vital for the provision of incentives on the scale required for reducing emissions in Africa and globally.

7.5.4 Finance, Technology and Capacity-Building

The African Common Position elicited that in accordance with the Convention, developed countries have a commitment to provide financial, technological and capacity-building support to enable developing-country actions. The establishment of a mechanism to address all aspects relating to the means of implementation for developing countries, for both adaptation and mitigation, including access to technology, finance and capacity-building should be introduced. The mechanism should:

- *Be underpinned by the principle of equity and common but differentiated responsibilities.*
- *Operate under the authority and guidance of and be fully accountable to the COP.*
- *Have an equitable and geographically balanced representation of all Parties within a transparent and efficient system of governance.*
- *Enable direct access to funding by the recipients.*
- *Strengthen developing-country capacity to ensure recipient-country involvement during identification, definition and implementation, rendering it truly demand driven'*(AMCEN, 2009:1)

Furthermore, the mechanism should assist in the implementation of programmes or projects put forward by developing countries, and provide the necessary funding, technology and capacity-building support.

Finally, the provision of finance, technology and capacity-building must be legally binding, with consequences for non-compliance.

7.6 Summary of the Decision-making process in Copenhagen

There were to be two outcomes at COP15, as stated in earlier chapters.

As previously identified in Chapter Three, in Bali in December 2007, the international community launched a second track of negotiations in parallel under the '*Bali Action Plan'*- the Ad hoc Working Group on Long-Term Cooperative Action (AWG-LCA). Whilst the working of the AWG-LCA is outside the scope of this research, this working group aimed at enhancing the implementation of the UNFCCC under which the Kyoto Protocol sets out specifically how much Annex I countries should reduce their emissions by, and how). The work of the AWG-LCA was concluded in 2009 with the expectation that an agreed action would be for an agreement '*now, up to and beyond 2012'* (TWN, 2009).

As previously stated, the AWG-KP is the negotiating track under the Kyoto Protocol whilst the AWG-LCA is a negotiating track under the convention. Two outcomes were expected at COP15 which were to be legally and substantively distinct for the African Group. The

expectation and legal outcome for the AWG-KP was clear. The outcome would be for an agreement '*now, up to and beyond 2012'* (TWN, 2009). In essence,

> *…"an amendment to the Kyoto Protocol in line with the mandate, clearly setting out in Article 3.9 the amount of emission reductions by Annex I Parties in their subsequent commitment period'* (TWN, 2009:73).

Twelve proposals for amendments to the Kyoto Protocol were submitted by Parties, including the African Common Position, all of which were to be used to reach consensus on the required amendments to the text.

However, during the first week in Copenhagen, broad discussions on a series of texts were held by African Leaders, diplomats and experts without making much progress, resulting in only the two series of texts: one on the Kyoto Protocol track and the other on the Long-Term Co-operative Action track being presented to world leaders. Notwithstanding, these texts had no specificities on: -

- *Emission reduction targets for developed countries;*
- *Numbers on financial support for action in developing countries; and*
- *The legal nature of the agreement' (*ENB, 2009:12).

In addition, the Danish Presidency failed to manage the process in an understood and agreeable manner acceptable to parties during the High Level Segment in the second week as highlighted in Chapter Six. This caused confusion for the role of both the negotiators and representatives of Member States at large. The resumption of discussions by the Heads of States and Governments towards the end of the second week led to a draft declaration known as – *The Copenhagen Accord* (UNFCCC, 2009). The *Copenhagen Accord* formed the basis for subsequent discussions between Heads of State, Ministers and delegation leaders and also involved long discussions at plenary, well into the early hours of the morning.

The *Copenhagen Accord w*as a result of a series of closed-door bilateral and eventually multilateral meetings held under the auspices of Denmark as the President of the COP15/CMP5. Twenty-six Heads of State and Governments took part in the closed meetings including the Prime Minister for the Federal Democratic Republic of Ethiopia, Meles Zenawi who represented the African Group.

7.6.1 THE KEY ELEMENTS OF THE COPENHAGEN ACCORD

The key elements of the *Copenhagen Accord* included:

- *An aspirational goal of limiting global temperature increase to 2^0C.*
- *A process for countries to enter their specific mitigation pledges by January 31, 2010.*
- *Broad terms for the reporting and verification of countries' action.*

- *A collective commitment by developed countries for $30 billion in 'new and additional' resources in 2010-2012 to help developing countries reduce emissions, preserve forests, and adapt to climate change.*
- *A goal of mobilizing $100 billion a year in public and private finance by 2020 to address developing country needs'* (AMCEN, 2009:5).

The *Copenhagen Accord* also called for the establishment of a Copenhagen Green Climate Fund, the establishment of a High Level Panel to examine ways of meeting the 2020 finance goal, a new Technology Mechanism, and a mechanism to channel incentives for reduced deforestation. The Nairobi Declaration which formed Africa's Common Position is appended as Appendix 9 as previously indicated.

The COP15 also agreed to continue negotiating on an extension to the Kyoto Protocol and a new agreement on the 'Long-term Cooperative Action' during the COP meeting in Mexico in 2010.

7.7 THE FAILURE OF THE COPENHAGEN ACCORD

The *Copenhagen Accord* was seen to be an agreement between only a few world leaders. This was the bone of contention during the conference. When the *Copenhagen Accord* was presented at plenary on 18th December 2009 for consideration, the African Group in addition to many other countries and in particular Tuvalu, Venezuela, Nicaragua, Cuba and Bolivia strongly repudiated the document. In the end the COP/MOP only took *note* of the *Accord* and declined to adopt it (Hoste, 2009)

The *Copenhagen Accord* was met with much resistance by developing countries because it was viewed as an attempt by the developed countries to initially bypass the UN process to strike a 'back room' deal and then force this through the UN decision-making processes for adoption.

One of the key challenges that negatively influenced the COP15 negotiation process was the lack of 'transparency and inclusiveness' which led to total distrust given the recurrent manipulation of the text by both the Danish hosts and other key government leaders. For instance, the final draft of the *Accord* omitted even the long-term emissions goal included in earlier drafts.

From the decision-making literature in the context of the UNFCCC as discussed in depth in Chapter Three, COP decisions are by consensus. However, the manner in which the Copenhagen Accord was prepared and presented left the African Group and other developing nations, such as the least developed nations, with a feeling of '*being shut out of the deal'* and hence the unwillingness to adopt it as a COP decision.

7.8 CONCLUSION

This chapter has evaluated the data analysed from the study and is used to assess the decision-making processes of African Leaders in the context of the UNFCCC and Africa's Common Position. The view of African Leaders in relation to the impacts of climate change on Africa is also evaluated and the key components of Africa's Common Position in addressing these challenges in order to achieve a legally binding agreement at COP15 in relation to the Kyoto Protocol is highlighted and the ultimate outcome of COP15 – The *Copenhagen Accord*.

From the data collected, it is evident that the African Group had a clear and articulated decision-making process involving numerous stakeholders i.e. the AU, AfDB, AUC, ECA, AMCEN, CASHOSCC including the African Group of technical experts. Meetings were held and attended continent-wide and internationally.

Notwithstanding, African Leaders are reputedly known for their lack of co-ordination and the absence of a voice in decision-making in climate change negotiations which is evident from the inconsistent decision-making processes and conflicting priorities. In other words, there were no clear lines of singular accountability in reality to the surprise of the developed nations and other 'super powers'. The African Leaders came together to show solidarity, maturity and a sense of unity. This apparent 'coalition' of the African Group empowered the African Leaders to formulate their vision over a period prior to COP15 based on coherent decision-making processes.

Nonetheless, whilst the study has not focused on the group dynamic of the African Member States, this becomes evident in Chapter Eight. Chapter Eight therefore analyses the research findings in more depth, more specifically as it relates to the decision-making processes of the African Group and the eventual decision of COP15 in terms of the specific research questions the study addresses. The debate of decision-making processes utilising the theory of *Bounded Rationality* within the context of the UNFCCC during COP15 is used to ascertain whether the decisions made by the African Group were rational, thereby providing significant insights and making an original contribution to this field of decision-making in terms of both content and context.

CHAPTER EIGHT DISCUSSION

8.1 INTRODUCTION

This chapter analyses the research findings in more depth. The key demands of the African Group based on the African Common Position of the Committee of the African Heads of State and Governments on Climate Change is further analysed as it relates to the decision-making processes of the African Group and the eventual decision outcome of COP15, *the Copenhagen Accord*. The specific research questions the study addresses are answered.. The debate on the decision-making processes of the African Leaders based on the theory of *Bounded Rationality* within the context of the UNFCCC is also deliberated in order to ascertain whether the decisions made by the African Group were rational. The chapter also identifies the original contribution made to the field of decision-making in terms of both content and context. The practical implication of the study is also identified based on the decision-making processes of the African Group. The chapter concludes with an overarching summary.

8.2 NEGOTIATING THE AFRICAN COMMON POSITION

The preceding chapter analysed the first set of data; the following sections aim to analyse the following critical questions asked and observed by the researcher during the study. This relates to the following specific questions: '*Can you see the relevance between the negotiation process and the decision-making process of the African Group*?' and '*What is the relationship between the negotiation process and the eventual decision made by the group*?' The final question asked was '*In light of climate change, are there any challenges you have observed with the decision-making processes of the African Group*?'

In order to establish the links between the negotiation processes, the decision-making processes and the eventual outcome of COP15, i.e. the *Copenhagen Accord*, and the gap in the literature, it is pertinent to first examine Africa's Common Position and the key concerns of the African Group following the decision of COP15. The data collected from the participants and documentary evidence is used to identify and discuss these links including the relationship with the decision-making processes and the eventual outcome of COP15.

8.2.1 ARICA'S DEMANDS

The first request by the African Group was for financial compensation, as a result of the natural, economic and social resources that have been lost, and the historical responsibility of developed countries on climate change in that respect. According to the African Group, the financial commitment of developed countries should be at least 1.5 per cent of their global GDP (Hoste, 2009).

The second demand was that the UNFCCC's principle of '*common but differentiated responsibilities'* should be respected. As previously stated, this principle recognises the historical differences in contributions of developed and developing states to global environmental problems, and differences in their respective economic and technical capacity to tackle these problems. The principle of *common but differentiated responsibility* includes two fundamental elements. The first includes the common responsibility of Member States for the protection of the environment, or parts of it, at the national, regional and global levels. The second aspect relates to the need to take into account the different circumstances, particularly each Member State's contribution to the evolution of a particular problem and its ability to prevent, reduce and control the threat (Hoste, 2009).

The third mandate from the African negotiators was methodological: they wanted to keep the two-track negotiations as shown in Figure 19 below. This meant they wanted to keep the distinction between the Kyoto Protocol and the Convention. The main reason behind this demand was the fact that the Protocol legally commits 37 industrialised countries and the European community to the reduction of GHG emissions to an average of five per cent against 1990 levels over the five-year period 2008 - 2012 as specified in Chapter Three. The Convention can only encourage industrialised countries to stabilise GHG emissions and consequently it only works on a voluntary basis. Another important reason postulated by the African Group was to keep the distinction between the Protocol and the Convention based on the above mentioned principal of *common but differentiated responsibility.* This allows emerging economies like China, India and South Africa to benefit from the status of a developing country and, as such, avoid the commitments imposed on developed countries under the Kyoto Protocol (Hoste, 2009).

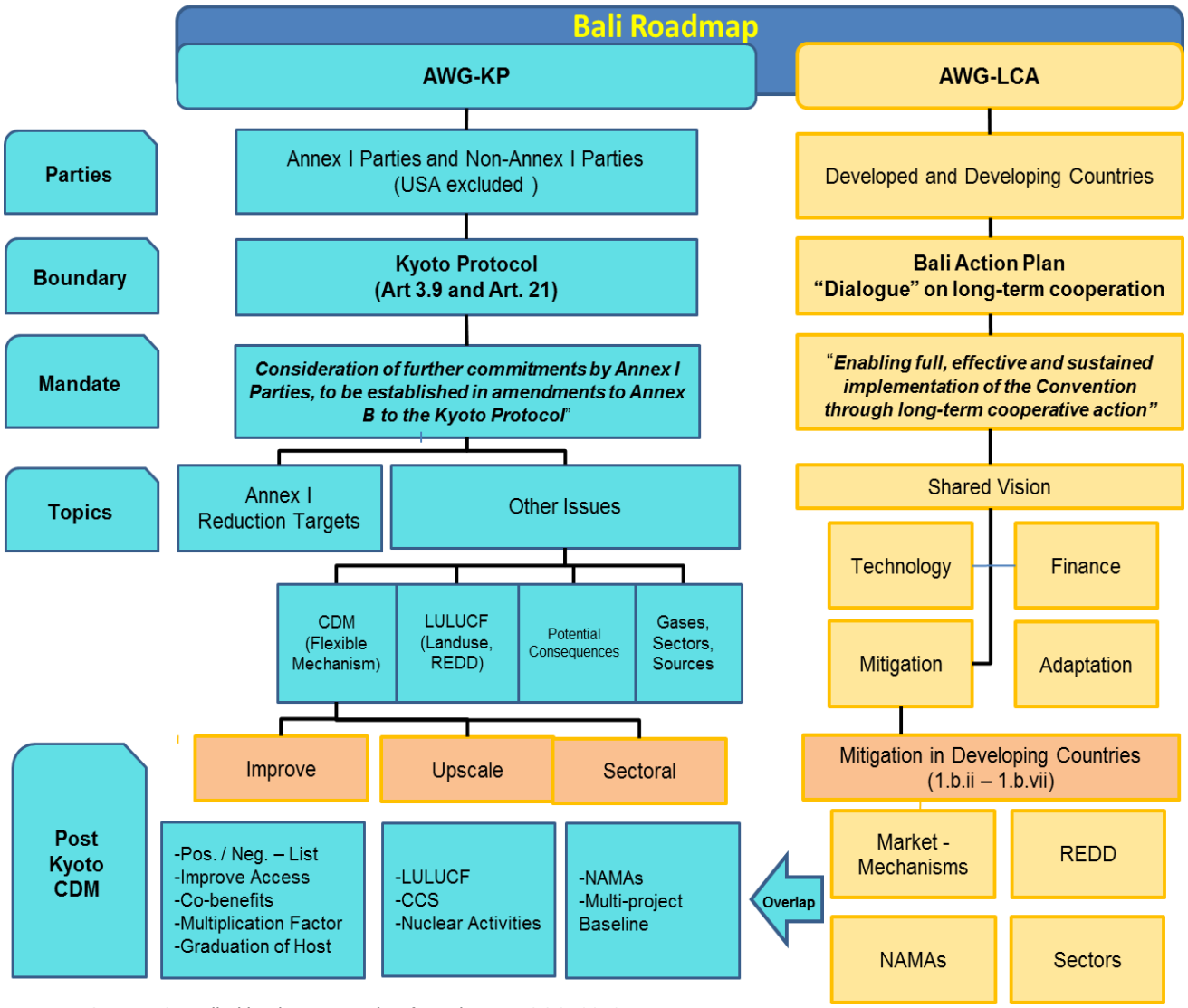
The African Common Position demanded that Copenhagen must produce a two-track outcome: one track to stipulate the future commitments by developed countries party to the Kyoto Protocol; the other track to be amended to specify the commitments beyond 2012 required of the developed countries bound by the Kyoto Protocol. The second track would also provide a legal instrument for the outcome of the negotiations under the Convention which includes all parties to the UNFCCC (Hoste, 2009).

The fourth crucial issue in the African Common Position related to the Bali Action Plan. As stated earlier, this roadmap launched a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action from 2007 to 2012 and beyond. The Bali Action Plan was centred on four main building blocks – adaptation, mitigation, technology, and financing. Member States also agreed that the negotiations on a long-term agreement should address a shared vision for long-term cooperative action, including a long-term global goal for emission reductions. The reason for insisting on the importance of the Bali Action Plan by the African Group was to pressure

developed countries to fulfil their commitments including adaptation, mitigation, and technology transfer (Hoste, 2009).

The fifth demand within the African Common Position was that developed countries needed to reduce their GHG emissions by at least 40 per cent below 1990 levels by 2020. By 2050 the GHG emissions of developed countries should be at least 80 per cent to 90 per cent below 1990 levels, in order to achieve the lowest level of stabilisation assessed by the IPCC's Fourth Assessment Report (IPCC, 2007). As such, the African Common Position explicitly stipulated that Africa would not accept any delay by developed countries to cut their GHG emissions drastically and asked for support for African nations to adapt to the negative impacts of climate change (Hoste, 2009).

FIGURE 20 OVERVIEW OF THE TWO TRACK CLIMATE CHANGE NEGOTIATIONS



Source: Compiled by the Researcher from the UNFCCC, 2010

8.2.2. THE KEY CONCERNS OF THE AFRICAN GROUP

Following the decision outcome, i.e. the *Copenhagen Accord*, the key concerns of the African Group were identified as follows:

i. The Legal Status of the Agreement

The Agreement – According to the African Group, the *Copenhagen Accord* was a political declaration with no legal status. *The Copenhagen Accord* was supported by a limited number of Member Parties, and as such, indicated that there was little guarantee it would be implemented under the decision-making process of the UNFCCC (UN, 2010). Documentary evidence also revealed that the reference to accomplish a legally binding instrument by 2010 was dropped from COP15 at the very last moment of the plenary session (TWN, 2009).

From the perspective of the research, in terms of the negotiation process and the eventual outcome of COP15, the African Group felt an urgent need for an agreement that kept the elements of the Kyoto Protocol alive, and which also leads the Bali Action Plan elements into another legally binding treaty. This was in order to establish a strong legal architecture for future climate change negotiations and decisions under the UNFCCC decision-making processes.

ii. The Post COP15 Process

The *Copenhagen Accord* states that the mandates of both negotiation groups i.e. AWG-KP and AWG-LCA would continue, without providing any definition of the future decision-making process (Hoste, 2009).

In essence, the African Group felt that the 'late-night' deletion of the reference to a legally binding outcome needed to be reviewed in subsequent COP meetings in order to achieve a legally binding deal, which not only keeps the Kyoto Protocol (or amended Kyoto Protocol) but also takes forward the Bali Action Plan elements. The relationship in the Convention between the AWG-KP and AWG-LCA under the Bali Road Map is shown in Figure 19previously identified above (Hoste, 2009).

iii. Relation of the Copenhagen Accord to UNFCCC and the Kyoto Protocol

The *Copenhagen Accord* endorsed two parallel decisions under the Convention and the Protocol which extended the two formal negotiating tracks that existed prior to Copenhagen. Unfortunately, these decisions did not cross-reference the *Copenhagen Accord*. Thus, while some parties will look to these negotiating processes to elaborate and fully operationalise the Accord, no link was formally established (Hoste, 2009).

iv. Emission Reduction Targets: Peak Emission and 2020 targets

Peak emissions targets and 2020 targets were not specified in the *Copenhagen Accord*. Furthermore, the *Copenhagen Accord* did not refer to '*per capita emissions'* as being the basis of equity in climate change negotiations. What resulted was a mere listing of voluntary targets by developed and developing countries, in Annexes to the Copenhagen Accord. The request was for these voluntary figures to be submitted by 31st January 2010 (Hoste, 2009). Furthermore, there was also no specific reference to 2050 targets in the *Copenhagen Accord.*

The outcome from COP15 was expected to identify mid-term emission reductions targets for industrialised nations and outline actions that developing countries would take to limit their emissions. The fact that the *Copenhagen Accord* did not include any binding emissions reduction targets leaves it to industrialised countries to list their own and specify individual results by 2020, to the dismay of Member States of the African Group (Hoste, 2009).

v. International 'consultations and analysis' of mitigation actions

Under the *Copenhagen Accord*, African countries will be required to have their actions reviewed and analysed by the international community. The *Copenhagen Accord* mentions that suitable '*guidelines'* will be developed to give content to the phrase *consultations and analyses* (Hoste, 2009).

However, from the perspective of the African Group, this would put additional pressures on African nations to fall in line with the *Copenhagen Accord* if they wished to access available funding and technologies from developed countries, thereby forcing a regime of 'compulsory compliance'. In essence, this would influence any future decision-making process and outcome made by Member States of the African Group.

vi. Financing

On the issue of Finance, the *Copenhagen Accord* did not offer the clarity or the security needed for long-term financing required by the African Group. There was no statement to guarantee that the financing mentioned in the *Copenhagen Accord* would be delivered. As such, the needed stability to drive investments in low-carbon pathways in Africa was ultimately not supported in the *Copenhagen Accord* (Hoste, 2009).

Based on the above, the development of new sources of finance would be necessary to rebuild trust between the developed world and African nations.

vii. Timeline and Work Programme.

Since the *Copenhagen Accord* was not formally agreed to, as a mandate, there was no deadline in the COP15 decision with regard to the timeline and programme of work. While the text did not set a timeline for agreement on a legally binding treaty, African Leaders requested for discussions to start again between31st May and 11th June 2010, in Bonn. Parties therefore decided that COP 16/CMP 6 would be held from November 29th to 10th December 2010, in Cancun, Mexico and that COP 17/CMP 7 would be held from November 29thto December 10th 2011, in Durban, South Africa. The developments in the decision-making process and the succession to the Kyoto Protocol since the *Copenhagen Accord* in relation to the research questions are discussed in the final chapter.

8.3 THE RESEARCH QUESTIONS DISCUSSED

As stated in earlier chapters, the research aimed to address the following question:

i. How do a group of African Leaders make a common decision on the succession of the Kyoto Protocol using the theory of Bounded Rationality?

This section also addresses the following two of three sub-questions:

ii. How did Africa's decision-making strategy emerge at COP15?
ii. What was the outcome of the collective decision-making processes by African Leaders at COP15?

Commencing with the questions relating to the emergence of Africa's strategy at COP15 and the outcome achieved. The decision outcome in relation to COP15, i.e. *the Copenhagen Accord* has been addressed in the preceding chapter, i.e. Section 7.5.1. The section below aims to highlight the outcome in relation to the African Group's decision-making processes which deviated from the African Common Position, bringing to the fore the African Group dynamic and hidden agendas up to and during COP15.

8.3.1 THE EMERGENCE OF AFRICA'S STRATEGY

Focusing attention to the emergence of Africa's strategy, whilst the outcome of Copenhagen did not benefit the majority of the African nations, there were some positive aspects emerging from the African Group's approach to COP15 which must be recognised.

During the preparation for COP15, the African Group raised its profile as a continent to be recognised on the world-wide negotiating stage. Furthermore, COP15 brought numerous African stakeholders together for the first time on an issue that affects the entire continent;

albeit, it is important to recognise that the impacts of climate change vary considerably across the continent.

Furthermore, the negotiations proved to be an excellent instrument for African regional and domestic politics, with some countries benefitting more than others. South Africa confirmed its status as a regional power on the African continent and at home, obtaining a new international status by becoming part of BASIC as discussed in Chapter Seven.

Regional and sub-regional discussions of the African Group commenced in 2007, with the formal process to COP15 commencing in 2008. A number of formal UNFCCC sessions were held with the African Group negotiators at various international and regional meetings in Accra in August 2008, Algiers in November, 2008, Poznan in December, 2008 and Bonn in March, 2009. The detailed schedule of meetings attended by the African Group is shown in Table 11. Furthermore, Chapter Three Section 3.5 gives a detailed account of these meetings which addresses this specific research question.

Notwithstanding, the main meeting relating to the emergence of Africa's strategy was the meeting of CAHOSCC. CAHOSCC came forward with the formal African Common Position in October 2009. The research revealed, which was also covered in various international media, that this was the first time African Leaders had presented a clear signal to the world that they had reached an African consensus on the issue of climate change.

In essence, one could argue that the decision-making process of the African Group in relation to the succession of the Kyoto Protocol commenced two years in advance of COP15. The research revealed that the formal decision-making process of the African Common Position was initiated in November 2008 in Algiers, followed by the Nairobi Declaration in May 2009 which resulted in the African Common Position of October 2009. The formal lodging of Africa's Common Position to the UNFCCC was on 30th October 2009 (UN, 2009).

8.3.2 The African Group Dynamics – Scratching Beneath the Surface

Whilst the decision-making processes of the African Leaders on the surface looked clear and well structured, the inter-group dynamics and hidden agendas of the African Group began to play-out in full during the last days of COP15.

For instance, in some of the African Group meetings and the African AWG-KP meetings, specific African Member States became even more vocal and dominant in the discussions. Examples include South Africa, Congo, Ethiopia, Zambia, Tanzania, Uganda, Nigeria, Algeria and Mozambique. The more dominant nations on the continent were beginning to openly dominate the various internal African Group meetings and make decisions on behalf of the

continent on other aspects of the negotiations such as REDD, gases, land use, carbon capture and storage to mention a few. For example Algeria, speaking for the African Group stated:

> …''*Africa will not put aside the historical responsibility of the developed world for climate change and the principle of common but differentiated responsibility which should not be undermined under any guise'* (TWN, 2009).

Referring to the Kyoto Protocol, Algeria went on to state:

> *…'the UNFCCC has only one legally binding instrument and it must not be undermined. The Kyoto Protocol must survive and continue to function as the main and most important implementing instrument of the convention. The African Group is firmly opposed to the re-negotiation of the UNFCCC, which could lead to the complete collapse of the fight against climate change'* (TWN, 2009).

Another example is a statement made by Zambia on behalf of the African Group:

> *…''We are concerned with the withdrawing of pledges that have been discussed for some time. Now parties are back tracking and informing us that the figures are not for the Kyoto Protocol. But we sit in this room to discuss KP issues, with the black flags'* (TWN, 2009).

In this respect, Parties are indicated with two kinds of flags. Those who are parties to the UNFCCC but not parties to the Kyoto Protocol are given white flags; those who are Parties to both the UNFCCC and KP are given black flags. From the researcher's perspective, the colours of the flags struck a chord. Black in most countries signifies death. The black flags were attributed to both the UNFCCC and the Kyoto Protocol, the aim of which the African Group were negotiating hard to maintain, iterated by many African nations.

> **Nigeria**…''a *two-track approach is important, rather than the weakening or killing off the Kyoto Protoc*ol…*we will not succumb to pressure to dismantle the Kyoto Protocol…you do not kill the mother before a child is born'* (ENB, 2009).
>
> **South Africa**…*''a second commitment period under the Kyoto Protocol for post-2012 was the basis of comparable efforts of Annex I Parties. It opposed all attempts by developed countries that result in the Kyoto Protocol being superseded or made redundant'* (COP15, 2009).
>
> **Gambia***…''we cannot support the 'ditching' of the Kyoto Protocol, we want a two-track approach'* (ENB, 2009).

From the researcher's perspective, whilst some African Parties were extremely vocal, a number were also not '*visible with a voice'* during the negotiations and decisions being made by the African Group. These countries included Burundi, Mauritania, Djibouti, Sao Tome and

Principe, Swaziland and Comoros. What emerged from the analysis was that these countries were the poorer and smaller African countries.

One could argue that whilst the African Group appeared unified in their approach, prior to COP15, a number of countries had started to 'wine and dine' with developed nations, due to hidden agendas; this was not initially apparent. For example, documentary evidence revealed that some of the difficulties of reaching a Common Position by the African Group included the intervention of South Africa on behalf of the African Group in Bonn in August 2009. During a session on financing, South Africa insisted that there was to be no differentiation in access to climate-change-related development (ENB, 2009). This statement came as a surprise to several other African Member States. However, this was seen as an attempt by South Africa to secure its economic development by secretly negotiating with developed nations (ENB, 2009). The analyses revealed that if the negotiations on financing were successful at COP15, South Africa's aim was to secure its share of the money to develop its economy like that of India and China, and not to lose possible funds to its poorer African neighbours (TWN, 2009).Furthermore, the South African President, Jacob Zuma confirmed South Africa was fully behind the UN on climate change and repeated this in his statement to the UN Secretary-General prior to COP15, to the surprise of many African Member States (TWN, 2009).

Moreover, these moves and statements by South Africa were outside the decision-making process of the African Group. As such, whilst there appeared to be a consensus amongst African nations on the decision-making processes before and up to COP15 on the surface, this was not followed by all African Member States. The more dominant and vocal African players, such as South Africa, Ethiopia, Algeria, Zimbabwe, Zambia, Nigeria and Egypt also began to form small coalitions and separate themselves from the rest of the group during the final stages of the High-Level Segment at COP15. An example of this is, again, South Africa, which became an official member of the Group of BASIC countries which included Brazil, South Africa, India and China. The letters in the countries' names were used to form the acronym BASIC – Brazil (BA), South Africa (S), India (I) and China (C) which was outside the African Group Membership.

Another example of changes in the decision-making process and the group dynamics relates to the role of the AU in relation to the Common African Position. More specifically, on 24th August 2009 Jean Ping, Chairman of the AU Commission stated:

> …''*This is the time for Africa to aggressively engage to ensure that climate change is effectively addressed'* (AU, 2009).

In a draft resolution, the AU called for rich countries to pay at least $67 billion annually to counter the impact of global warming in Africa. At the Barcelona Climate Change Talks attended by the researcher, at the beginning of the round of negotiations and decision-making, the African Group walked out of the negotiations because their demand of a 40 per cent

reduction of GHG by developed countries was not met, as discussed in Chapter Five. The African Group returned to the table after a deal was brokered by the EU promising to use 60% of the remaining time in the AWG-KP to discuss the targets that should be reached by the developed countries that are bound by the Kyoto Protocol (ENB, 2009). Although this rather aggressive method of acting had the desired effect in Barcelona, which was supported by African Leaders and during the first week in Copenhagen, up until the very last minute African leaders considered it wiser to remain part of the UNFCCC process (COP15, 2009). After the walkout, the aggressive tone of the Chairperson of the African Union, Jean Ping, became more moderate and subtle in Africa's demands.

Furthermore, the Ethiopian Prime Minister, Meles Zenawi, who led the African delegation in Copenhagen, was vague in his remarks on the amount of compensation African nations were asking for in Copenhagen, having agreed an amount with CAHOSCC. More specifically, on 17th November after the CAHOSCC meeting there was no more mention of the $67 billion annually asked for in compensation by the African Group:

> ...''*We have set a minimum beyond which we will not go, but I am not in a position to tell you what that minimum figure will be'* (TWN, 2009).

Prior to COP15, once the African Leaders had agreed on the Common Position and a strategy they went on an international tour to gather support and financing for their position (ENB, 2009). Following, the Barcelona Climate Change Talks, there was a two-day China Africa Summit in Egypt at which China pledged $10 billion in concessional loans to African nations over the next three years. This figure is double what had been promised at the China-Africa Summit in 2006 in Beijing (AU, 2010). This was seen by the developed world as an attempt by China to counter the critique that China was only after Africa's natural resources (TWN, 2010). The Chinese government stated it would cancel the public debts of some of the poorest countries in Africa and would also build much needed energy projects covering solar power, biogas and small hydro plants (TWN, 2010). This was a caveat to what the Chinese Prime Minister Wen called '*mutually beneficial cooperation*' (Africa Associated Press, 2009). It appeared that China's aid and voice on the international forums for Africa was on condition of Africa's adherence to China's global policies including during the climate change negotiations at COP15 (Africa Associated Press, 2009).

The aim of the Korea-Africa Forum held in November 2009 was to identify how to achieve economic development while protecting nature. South Korea promised to triple its aid to Africa and develop green business initiatives under the Clean Development Mechanism (CDM) (Korean Times, 2009). The forum concluded with a joint collaboration on projects for the creation of biomass energy, greenhouse gas mitigation and the sharing of policies and technologies for adaptation to climate change (Korean Times, 2009). Moreover, the two sides also promised a joint response to the major global issue of climate change.

Furthermore, on 25th November 2009, Norway and South Africa announced that they would collaborate on carbon capture and storage. This technology involves capturing carbon dioxide (CO^2) and storing it safely in geological structures. Norway agreed to support the Carbon Capture and Storage Centre that had recently been established at the South African National Energy Research Institute (Store, 2009).

On the 15th December 2009, Prime Minister Zenawi of Ethiopia was received as the Head of the Africa Group delegation by the French President Sarkozy to discuss the forthcoming Summit in Copenhagen (TWN, 2009). This resulted in a joint appeal for an ambitious accord in Copenhagen (Financial Times, 2009). The appeal was a new proposal for the negotiations with five key points:

i. *Halving CO2-emissions by 2050 compared to 1990.*

The interesting emergence on this particular point is that Prime Minister Zenawi as the representative of the Africa Group agreed that the most advanced developing countries needed to adopt ambitious low-carbon growth plans and action aimed at yielding a significant deviation of CO_2-emissions, while maintaining the principle of *common but differentiated responsibilities*. This is noteworthy because the very same principle was used by developing countries for which Prime Minister Zenawi represented the majority, i.e. the African nations, to argue that they have to be exempt from serious CO_2-emission cuts so as not to hinder their economic development.

ii. *Full transparency of commitments taken by developed countries and actions taken by developing countries.*

This point is also noteworthy because China had been against such transparency from the very beginning, and in order to receive the financial and political support of China the Africa Group was supposed to adhere to the objectives of Chinese diplomacy.

iii. The 'fast-start-up fund'

The third issue was the adoption of a '*fast-start-up' fund of $10 billion US dollars a year, for 2010, 2011 and 2012.*

iv. A strong commitment to long-term public financing based on developing countries' needs beyond 2012.

One of the mechanisms put forward by President Sarkozy to finance this long-term commitment was a carbon border tax. However, the EU-Commissioner-designate for Trade,

Mr Karel De Gucht, clearly stated during his hearing in the European Parliament that the EU was against the idea of such a tax because it could start a trade war (Financial Times, 2009).

v. *A reform of global governance.*

Finally, the idea of *an ambitious reform of global governance* including the establishment of a World Environment Organisation to ensure that the environment, sustainable development and the fight against climate change remain high on the international agenda was also discussed.

However, these discussions were outside what the African Group had agreed as part of their decision-making process. Furthermore, whilst the result of this African international tour for financial and political support might seem to have been positive for the AU, the African Group and individual African countries, African Leaders sent out mixed and conflicting signals. Moreover, the international tour by the different groups of the African Group was not a formal part of the African process, which could have presented the issue of mixed messages and individual country agendas being promoted.

The acceptance of China's financial and political support, while issuing a joint appeal with France asking for full transparency on actions of CO_2reduction by developed countries and actions adopted by developing countries, was a major issue for China and was viewed as an intrusion of their sovereignty.

Another example of breaks in the African Group's decision-making process was the African Group asking developing countries to commit to ambitious low-carbon growth plans and actions, and at the same time asking for the recognition of the principle of *common but differentiated responsibilities* to argue that developing countries do not have to commit to CO_2 reduction targets.

Furthermore, the study revealed, that on 16th December 2009, the Ethiopian Prime Minister, Meles Zenawi, announced at a press conference alongside European Commission President Jose Manuel Barroso and Swedish Prime Minister Frederick Reinfeldt that Ethiopia would agree to a mix of both public and private cash amounting to $100 billion annually to pay for their development path. The chief negotiator for Sudan, Ambassador Lumumba Di-Aping, also the Chair of the G77 and China, accused Mr. Zenawi of capitulating to pressure by the richer nations (EU- Observer, 2009). This action resulted in the end of the African Common Position.

The research revealed that the sum of all the various independent decisions and negotiating processes made by African Member States, in particular South Africa and Ethiopia immensely

weakened the Africa Group's position, which from a decision-making perspective was the opposite of what it intended to achieve based on the African Common Position.

8.4 AFRICA DIVIDED AND NOT UNITED IN THE CLIMATE CHANGE NEGOTIATIONS

From an African perspective, the real political accomplishments were not made in Copenhagen. The negotiations proved to be an excellent instrument for African regional and domestic politics. South Africa confirmed its status as a regional power on the African continent and at home; it even obtained a new international status by becoming part of the BASIC group of emerging economies. This is discussed in more depth in section 8.5.1 below.

Sudan's behaviour during the negotiations can serve as a case in point: Sudan accused Ethiopia of selling out Africa. Sudan did not support the deal Ethiopia was trying to make for the African Group, as it was seen to be in the interests of Ethiopia only. Other countries that were dismayed at what the President of Ethiopia, Meles Zenawi, had negotiated on behalf of the African Group, included Mali, Nigeria, Niger, Algeria, Zambia, Malawi and Mozambique, to mention a few.

Prime Minister Meles Zenawi, speaking on behalf of Africa at the final plenary session, stated:

> *'Africa is prepared to support the political agreement' (ENB, 2009).*

This was totally contrary to the speech made by the Vice President of Sudan, stating:

> *…'there is need for the two-track outcome in both the Kyoto Protocol and the Convention'* (ENB, 2009).

During the preparation for COP15, the African Group gained support internationally, both politically and financially. Whilst this was viewed positively from a decision-making perspective, in terms of an African Common Position, however, the individual multilateral and bilateral agreements outside the agreed decision-making processes of the African Common Position weakened the African Group, resulting in the split of the Group and an irrational decision taken by Ethiopia's Prime Minister which bore no resemblance to what had been negotiated by the Group as Africa's Common Position.

Despite the long process of preparation to come forward with an African Common Position, the united front collapsed when concessions had to be made through internal strife. The African Group was considered an influential force to be dealt with before the negotiations and during the first week of COP15, but ended up as an outsider following the High–Level Segment attended by African Leaders.

From the literature review, *Bounded Rationality*, confirms the premise that leaders fail in important decisions, and rather than choose the best alternative often 'suffice' in terms of the choice of alternatives. This is discussed in more depth in Section 8.5.

8.4.1 BROKEN LOYALTY BY SOUTH AFRICA

Although, South Africa called the agreement it negotiated with the US, China and India unacceptable, it did not decline to be part of the 'Copenhagen' deal. South Africa was the first Member State of the African Group to sign the *Copenhagen Accord*. However, in justifying their position, South Africa's environment Minister Sonjica stated:

> …"*the result of the negotiations was unacceptable but South Africa decided to stay to influence the process from within and thus not do another walkout as had been discussed between Africa Leaders'* (ENB, 2009).

From the study, it became apparent, that South Africa had additional motives to the ones mentioned above by their Minister for Environment. First, South Africa is seen as a major power in Africa and an anchor state in the Southern African region (Niemack, A, 2009).South Africa signed the *Copenhagen Accord* to secure future economic growth and energy provision, as South Africa is responsible for 39 per cent of the emissions on the African continent and is in the top 12 of carbon emitters worldwide (Niemack, 2009).The deal done by South Africa is similar to the way the Ethiopian President *'sold out'* Africa for the ultimate benefit of Ethiopia.

Secondly, South Africa wanted to secure continued international investment and was a prominent member of the African delegations that were invited to the China and South Korea summits, previously discussed. Although relations with China are not always straightforward because China has a firm grip on economic development in South Africa, it relies heavily on South Africa's non-fuel minerals like platinum and manganese (Alden et. al., 2009).

Furthermore, President Jacob Zuma put South Africa in the international spotlight as a member of the newly formed BASIC group. China, India and Brazil are emerging economic powers that wield considerable influence unilaterally and South Africa benefits from being part of this heavyweight collective as it bolsters its global influence.

Notwithstanding, despite the long decision-making processes and extensive preparation to come forward with a common position by the African Group, the united front collapsed through group dynamics and internal strife, political maneuvering on the world stage, and poor compromises by some of the African Leaders. The Copenhagen Accord document was only three pages long and '*What was left out is probably more than what it contains*' (ENB, 2009:63).

8.5 BOUNDED RATIONALITY AND THE AFRICAN GROUP

Looking back to the literature, the *Rational Model* of decision-making is based on the assumption that decision-makers are entirely rational and seek the best, most cost-effective alternative for a given problem (Browne, 1993). However, this model is based on quantitative measures of decision-making, and as previously argued in Chapter Three, cannot necessarily

be used to address all problems in society, including all the complexities and numerous dimensions of climate change.

As such, to address the research question, the model of Bounded Rationality was deemed more appropriate. '*Bounded Rationality'* unlike '*Rationality'*, conversely, asserts that decision-makers choose an alternative that exceeds some criterion or standard (Simon, 1997). This argument is centered on the premise that decision-makers do not and are unable to maximise outcomes in most situations. As previously stated in Chapter Two, Simon (1997) emphasised that:

> …*''decision-making whether individual or organisational is concerned with the discovery and selection of satisfactory alternatives; only in exceptional circumstances is it concerned with the discovery and selection of optimal alternatives'*(Simon, 1997:63).

However, '*Bounded Rationality'* reflects the behavioural aspects of strategic decision-making (Simon, 1976) comprising five key factors:

i. Factored decisions: Decisions are often so complex that only a limited number of the aspects can be attended to at a time. Thus decision-makers must divide decisions into a number of roughly interdependent parts and deal with the parts one by one within the various units of the organisation.

Thus, from the research perspective, the phenomenon of climate change is complex, multidimensional with different temporal and geographical impacts. Due to the nature of climate change and the uncertainty associated with this global issue, solutions and decisions to address climate change are broken into numerous discrete aspects. For instance, the study focused on the succession of the Kyoto Protocol under the AWG-KP.

> …''*The Kyoto Protocol is the only legally binding instrument that sets quantified commitment targets for each Annex I party to reduce its greenhouse gas emissions'* (TWN, 2009:74).

Under the Kyoto Protocol there is an aggregate target which all Annex l Parties must collectively meet in a given commitment period, and an individual target for each country. In the case of the European Union this is a joint target. However, other aspects relevant to the Kyoto Protocol include the AWG-LCA. Based on the above, two decision outcomes were expected in COP15; the AWG-KP under the Kyoto Protocol and the AWG-LCA under the Convention. Other decisions relating to climate change relate to CDM's, REDD, Mitigation and Adaptation. For each part of the climate change '*jigsaw puzzle'*, solutions are dealt with as separate decisions with associated decision-making processes, thereby confirming one of the factors associated with *Bounded Rationality*.

ii. Satisfying outcome: Maximising outcomes, which is characteristic of the *Rational Model* is replaced by the satisfying of outcomes in the Organisational Model.

COP15 ended in disarray due to the secret meeting of 26 country leaders within the conference center, which was outside the decision-making processes of the UN. The outcome of COP15 resulted in Member Parties 'taking note' of the Copenhagen Accord. The decision was not adopted. In the formal language of the UN, 'taking note' gives a low or neutral status in relation to the document being referred to. Furthermore, taking note, does not connote whether the document is seen positively, in which the word 'welcomes' would be used; or negatively, in which case 'rejects' or 'disapproves of' would be used. As such there is no obligation politically or legally to implement the Accord.

In essence, the *Copenhagen Accord* from an overarching perspective was seen as a compromise, '***a satisfying outcome'*** between developing nations, such as the African Group and the developed world.

iii. Search: Organisations generate alternatives by relatively stable, sequential search procedures.

In relation to the above factor utilising Bounded Rationality within the parameters of the study, COP15 adopted the decision to extend the mandate of the AWG-LCA to enable it to continue the work, with a view to presenting the outcome of the work to the COP for adoption at COP16P/CMP6 which was subsequently held in Cancun, Mexico in 2010. With regards to the AWG-KP, in order to ensure there was no gap between the first and second commitment periods of the Kyoto Protocol and recognising that Annex l Parties should continue to take the lead in combating climate change, the CMP requested for the AWG-KP's work on Further Commitments for Annex l Parties under the Kyoto Protocol to deliver the results of its work for adoption by CMP6, as such, implementing the sequential decision-making procedures of the UNFCCC.

iv. Uncertainty avoidance: Uncertainty tends to be avoided by making choices which emphasise short run feedback to provide for timely changes in emerging outcomes which appear to diverge from the objective at hand.

In the context of the UNFCCC, procedurally the Kyoto Protocol could not be terminated at COP15. The procedures under the UNFCCC decision-making process require that all Parties must agree by consensus before any decision can be adopted. As a result, developed countries were attempting to merge the two working groups together. By a tactical '*step by step approach requesting for the closer co-operation, coordination, collaboration and*

comprehensiveness of Parties, whilst systematically transferring issues of interest to them from the Kyoto Protocol and the AWG-KP into the AWG-LCA' (TWN, 2009:76)

Three outcomes therefore were available to the developed countries. The first option was to formally collapse the AWG-KP into the AWG-LCA track, thereby effectively ending the negotiations for the second commitment period for Annex I Parties under the Kyoto Protocol and continuing the negotiations under the AWG-LCA track. The second option was to fail to agree on a further commitment period under the Kyoto Protocol. This would be a breach by all Parties of their obligations under Article 3.9 of the Kyoto Protocol to establish subsequent commitment periods for Annex l Parties. In this case, the Kyoto Protocol would remain but in effect it would be redundant. Finally, the third outcome available was to seek a legally binding outcome under the AWG-LCA with the goal of superseding the Kyoto Protocol. If the elements of the Kyoto Protocol are transferred in to the AWG-LCA, and are discussed and concluded as part of a legally binding instrument under the Bali Action Plan process, the Kyoto Protocol in effect becomes redundant.

v. Repertoires: Organisations tend to have second and third alternatives which may be implemented if feedback indicates that a presumed satisfying choice is not yielding a desired outcome (Allison, 1971).

The research revealed that the uncertainty associated with the Kyoto Protocol could be addressed by a number of alternatives. This would have been to the advantage of Annex I Parties. Notwithstanding, it is assumed these outcomes are not acceptable to developing nations, and as such, a failure to agree on subsequent commitment periods is a violation of international law. Under the Kyoto Protocol, Parties are clearly bound to establish second and subsequent commitment periods for Annex I Parties. Article 3.9 provides that:

> *…''Commitment for subsequent periods for Parties included in Annex I shall be established in amendments to Annex B to this Protocol, which shall be adopted in accordance with the provisions of Article 21, paragraph 7'*(TWN, 2009:65)

This therefore provides a further alternative, if the '*satisfying choice'*, i.e. the Copenhagen Accord did not yield the desired outcome. The *Copenhagen Accord* was seen as the acceptable outcome to COP15 despite the controversy of the UN's decision-making process.

Furthermore, according to Jones (1999) *Bounded Rationality* asserts that decision-makers are '*intendedly'* rational, that is that they are goal-oriented and adaptive, but because of human cognitive and emotional architecture, they sometimes fail in important decisions. Some researchers also argue that when decision-makers, such as leaders, are engaged in contentious and complex situations, they tend to address conflicting decisions through an array of political tactics, i.e. alliances, the use of experts, limiting information, build allies to obtain a strong power base, in order to pursue their particular decision (Pettigrew, 1992). In

these situations the leader controlling the information has the power to exert influence on the group.

Furthermore, according to Nutt and Wilson (2010) decision-making processes are also 'bounded' and are often influenced by organisational cultures. Therefore a decision-making process is not generic but is often affected by the nature of the environment, the context in which the decision is being made, the type of leadership and the decision-maker.

The earlier sections of the chapter addressed the sub questions relating to the study, including aspects of the main question which aimed to explore, ***'****How a group of African Leaders made a common decision on the succession of the Kyoto Protocol based on the theory of Bounded Rationality?*

The following further answers the main research question from the perspective *Bounded Rationality.* As debated in the literature review, limited research has been undertaken in observing '*Bounded Rationality* 'in strategic decision-making and Environmental Policy (Gsottbauer and van den Bergh, 2011). The literature revealed that research undertaken to date has been from an environmental perspective rather than from a social science or management standpoint. According to Gsottbauer and van den Bergh (2011) most proposals for climate change rest on the assumption of rational behaviour in strategic decision-making.

According to Stern (2006), the empirical evidence of climate change is serious and urgent, demanding strong and co-operative action to reduce greenhouse gas emissions around the world. The challenge to address the phenomena of climate change is also complex, as it has many facets and impacts countries in different ways. As such, treatments of decision-making, technology development, diffusion processes and distributional considerations are at present poorly developed in the international arena.

The study has focused on the decision-making process of African Leaders within the context of the UNFCCC. The main aim of the African Group was to ensure the two-track process was maintained and to define the second and subsequent commitment periods '*with ambitious quantified emission reductions for developed countries that will significantly contribute to the minimization of future impacts of climate change' (TWN, 2009: 76)*. To achieve this out-come at COP15, Africa's decision-making strategy to put forward a Common Position on behalf of the continent can be argued to be rational. However, the influence and behaviour of more powerful and vocal African Parties, with hidden agendas, such as South Africa, within the confines of the African Group, i.e. Ethiopia, changed the dynamics, decision-making processes and outcome of what the Group aimed to achieve at COP15. In essence, what was agreed by the African Leaders and what was communicated as the African Common Position by the Head of the African Group, Prime Minister Meles Zenawi diverged, totally from what was agreed by the African Leaders at the various meetings held. As such, the African Group

failed during the most important decision time at COP15 which confirms the assertion of the Bounded Rationality Theory that:

> …''*While decision-makers are intensely rational that is they are goal-oriented and adaptive…but due to human cognition and emotional architecture, they sometimes fail in important decisions'* (Jones, 1990).

Thus, while the African Group was able to make a Common Position on climate change, they were unable to keep to the Common Position made. Moreover, whilst some of the decision-making processes were well-defined and structured, there was no process in place to safeguard the group, in order to prevent individual countries undertaking separate bilateral agreements to the detriment of the group during the negotiations. Furthermore, on the world stage the African Group sent out conflicting messages at the most crucial point, rather than remaining as a force with one voice.

As previously highlighted, strategic decision-making is an important management activity which is practised across a wide plethora of organisations. Whilst strategic decisions are made at the helm of these organisations, the associated decision-making processes are complex and lengthy. The UN as an international organisation is no exception; the decision-making process can be fraught with challenges and failures as highlighted by this study with Parties, such as the African Group Leaders, making '*irrational decisions'*.

8.6 FURTHER INSIGHTS: COP15 AND IMPLICATIONS FOR BOUNDED RATIONALITY

The purpose and success of any research is measured primarily by the overall contribution it makes in terms of innovative, creative and insightful ideas designed to benefit the community at large. Thus this study contributes to knowledge in several ways. Firstly, at the level of academia and in line with the research objectives, the literature review, to the best of the researcher's knowledge, shows there is no empirical study that has been undertaken with reference to the experience of African leaders in the decision-making processes at COP15. Therefore, the study contributes to the empirical body of evidence in terms of enriching the debate about decision making processes in a specific context.

COP15 in Copenhagen marked the culmination of two years of negotiations under the auspices of the UNFCCC and the Bali Roadmap. The purpose of the negotiations and decision-making process was to ultimately create a comprehensive, legally-binding international treaty to replace the Kyoto Protocol. However, the agreement did not materialise in Copenhagen as a result of the on-going contentions associated with many of the issues negotiated, the less than transparent decision-making processes of the UN and African leaders.

Widely disputed aspects of a deal amongst African leaders were:

- The levels of climate finance and its long-term governance;
- Emission reduction targets;
- The threshold at which to limit the average global temperature increase; and
- The introduction of a brand new treaty, or an upgrade of the existing Kyoto Protocol.

Notwithstanding, as discussed in previous chapters, for the first time in its history, Africa entrusted a single negotiation team to negotiate on behalf of Member States of the continent. Africa took several steps to arrive at this unprecedented move that led to the common position expressed in the Nairobi Declaration and later at the African Heads of State and Government on Climate Change (CAHOSCC) meeting in August 2009.

Building on the first African Position Paper submitted in 2006 (COP12/CMP2), the consultative meeting of the African Group of negotiators, held in Algiers in November 2008, marked a milestone. At that meeting, the African Group produced a document entitled “African Climate Platform to Copenhagen” also referred to as the Algiers Platform, which contained a synthesis of the consensus positions adopted by the African Group in Tunis, Nairobi Abuja; Dakar, and Johannesburg from a number of alternative options.

At the African Ministerial Conference on the Environment, i.e. the 3rd Special Session on Climate Change, which was held in Nairobi in May 2009, the Algiers Platform, was updated as discussed in Chapter Seven. The outcome of this decision-making process is validated in the AMCEN Report of the ministerial segment of the special session on climate change dated May 29, 2009 and its Annex I, the Nairobi Declaration on the African Process for Combating Climate Change, also referred to as the Nairobi Declaration is attached as Appendix 9 as previously highlighted. Upon a request from the UNFCCC Secretariat, in May 2009 Algeria made a submission on behalf of Africa as input to the June negotiation text, which confirmed and conveyed the positions expressed in the Nairobi Declaration. Further discussions took place in Kigali (May 20 - 21) amongst African Finance Ministers, and at the African Union Summit in Sirte in July 09.

Other stakeholders, such as the African Union (AU) endorsed and adopted both the Algiers Platform and the Nairobi Declaration. Further discussions in relation to the decision-making process involved the AU at its July 2009 summit in Sirte naming the Congo-Brazzaville President to convey Africa’s position on the impact of climate change on Africa before the United Nations General Assembly on September 22nd.2009. Furthermore, at that meeting, the decision was made for the Prime Minister of Ethiopia, Meles Zenawi to head the African negotiators on behalf of Africa at COP15.

The African negotiators expressed concern about the scientific conclusions contained in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, i.e. IPCC AR4, particularly as they relate to the social, economic and environmental impacts of climate change in Africa. Issues were also raised with regards to the impacts of climate change on marine and coastal ecosystems and resources resulting from sea-level rise, increasing water temperature, ocean acidification, and weather and climate variability, affecting coastal communities.

As such, the following two overarching goals were made by the African Group prior to COP15 from which Africa was to negotiate in order to constructively negotiate towards achieving an international climate agreement: These were a successful outcome of the negotiations and for all countries to take further actions to combat climate change.

Constraining climate change and its impacts is seen as a matter of survival for Africa. According the IPCC Fourth Assessment Report as discussed in the earlier chapters, Africa is particularly vulnerable to the impacts of climate change. Ultimately, the climate challenge can only be met if all countries make a collective transition to a low-carbon path. In the interim, adaptation is also seen as imperative (UNFCCC, 2010). Further, as the Declaration states, accomplishing a shift to a low-carbon economy – provided that this is done without diverting development resource - could potentially serve to increase Africa's economic competitiveness globally.

For Africa, the purpose of the enhanced negotiations was to follow the first commitment period of the Kyoto Protocol, with the policy space necessary to ultimately catalyse sufficient action to constrain climate change impacts to an acceptable level. This would enable African countries to face up to the challenges in terms of the impacts of climate change which are likely to occur.

The Common African position therefore made declarations that the succession to the Kyoto Protocol must enhance global action in the form of commitments on the part of all developed countries. These needed to be more stringent legally-binding emission reductions, in addition to, providing African countries with new, additional, adequate, predictable, sustainable, non-conditional and timely support in the form of finance, technology transfer and capacity building for enhancing their resilience; and the ability to adapt to the negative environmental, economic and social impacts of climate change. Furthermore, to enable African countries to implement mitigation actions aimed at achieving their developmental goals on a low-carbon path.

The African position was also highly influenced by, and overlapped with, many of the positions held by the other members of the G77 and China. The following guiding principles were widely shared amongst these countries:

- The UNFCCC principles must be retained as the basis for the new agreement, particularly that on equity and common but differentiated responsibilities;
- The Convention framework must be retained: the Convention is not open for re-negotiation;
- Emission reduction commitments for developed countries must be binding, and the mitigation, actions of developing countries must be voluntary, with corresponding support from developed countries;
- The emission reduction commitments of all developed countries – including those that are not Parties to the KP – must be comparable; and
- Developing countries maintain their right to development, using a fair share of the remaining atmospheric resource to do so.

The research has explored the decision-making processes of African leaders using the theory of *Bounded Rationality* in relation to the 'Copenhagen Accord' the outcome of COP15, the result of the years of negotiation of the succession to the Kyoto Protocol. More specifically, how a group of African leaders were able to make a common decision in relation to the succession of the Kyoto Protocol. The research revealed that whilst a common decision was made, African leaders deviated from the agreed decision-making processes and acted 'irrationally' at a crucial point in the negotiation process. Therefore, the assumption of rational agents in current climate change negotiations is not in line with reality as this study has shown.

The decision-making process involved multiple parties and was fraught with challenges during the high-level segment of COP15 due to the conflicting objectives of UN, African Member States and other Parties. Therefore, in order to understand negotiations for an international climate agreement, 'various aspects of Bounded Rationality and other-regarding preferences' needs to be taken into account (Gosttbauer and van den Bergh, 2012: 2). Researchers argue that decision-makers may co-operate if

> *…'rationality is replaced by Bounded Rationality and other-regarding preference. This can provide for a micro-foundation of certain political and institutional group processes underlying negotiations' (Gosttbauer and van den Bergh, 2012:2).*

As previously stated, the ambiguity of climate change and its resultant impact requires more attention with regards to the '*role of Bounded Rationality in the formulation of future international climate change agreements*'(Gosttbaur and van den Bergh, 2012: 297).

Negotiations and decision-making processes in the context of climate change bring a new dimension to the application of Bounded Rationality. This is also evident in recent studies on

the non-neoclassical approaches to economic behaviour. The meaning of *Bounded Rationality* has changed from Simon's original formulation (Fiori, 2011). One examples of this change is

> '*the reduction in the role of intentionality in favor of unconscious and automatic mechanisms in decision-making' (Fiori, 2011:3).*

According to researchers, the change in the notion of *Bounded Rationality* has emerged from specific contexts related to both particular subjects and the use of specific methods of inquiry (Fiori, 2011:1). *As a result, new applications and versions of the notion of Bounded Rationality appear, exhibiting differences and similarities'* (Fiori, 2011:1).

In conclusion, stated above, this study has discussed how a group of African Leaders made a common decision in relation to the succession of the Kyoto Protocol using the theory of Bounded Rationality at the UNFCCC Conference in Copenhagen in December 2009. The literature on strategic decision-making process in organisations is discussed leading to the theory of Bounded Rationality as a process for reaching decisions.

Recapping, the theory of rational choice (Rationality), discussed above and in the literature review chapter ascertains that individuals choose a decision based on 'a choice amongst alternatives' based on a process – referred to as the decision-making process (Marwala, 2012). The researcher argues that the definition of rationality includes making an optimised decision which African leaders were unable to make due to the uncertainty of the information available to them in relation to the likely impacts of climate change to enable them to negotiate the best possible option in terms of the succession to the Kyoto Protocol in line with Simon's (1977) assumption. In these situations, Simon (1977) argues that individuals choose an option that 'satisfies' rather than the best optimal solution (Simon, 1990). The 'Copenhagen Accord' was perceived to be the best possible outcome of COP15, with few Members of the African Group agreeing to the outcome due to the deviation of some influencing nations of the African Group from the stipulated African Common Position. This break in the coalition weakened Africa's negotiation position during the High–Level segment of COP15. This theory is known as the theory of 'Bounded Rationality'.

In Bounded Rationality, as earlier discussed, the main factor that determines what items should be considered in making a decision by the decision maker is the 'attention' phenomenon which is directly related to the organisational needs (the UNFCCC's succession of the Kyoto Protocol). The decision-making process must assure that two kinds of needs are attended to, namely real time needs, which can be thought as representing the outcome of COP15 (the opportunity) presented by the environment and periodic needs for replenishment, in terms of the research, addressing the impacts of climate change within the continent by African leaders. Simon (1977) does not argue against rationality, but contends that decision-

makers have to strive for more rational outcomes by influencing the environment' (Kalantari, 2010:513).

Simon's work on human decision-making and Bounded Rationality are considered as unique contributions to management (Kalantari, 2010). According to Simon (1977) organisational decision-making is a complex process that is influenced by many factors, more specifically the limitations of the rationality of human decision-making agents.

The apparent complexity of our behaviour over time 'is largely a reflection of the complexity of the environment in which we find ourselves' (Simon, 1969:10). This view of human behaviour is used to understand human environment and uncertainty that surrounds the decision-making process is a major challenge of our time. Simon's view is still relevant today, as strategic decision-making is the most important part of management and the outcome of decisions depends on the process that is used in making the decision.

The practicality and accuracy of Simon's Bounded Rationality theory of decision-making from the strategic perspective of the UN in the context of climate change decision-making processes is evident from the conclusion of the study. Furthermore, the concept and use of Bounded Rationality has also been substantiated in many case studies and research.

For example, Lee (2013) 'built a model for analysing an economy using bounded rational agents and observed that rational agents amplify the process bubble cooperation amongst rational agents' (Marwala, 2012: 3). Gama (2013) applied the concept to negotiate the behaviour of steam mining procedures and proposed universal team mining and self-adaptation models'. Jiang et. al (2013) successfully used Bounded Rationality' in evolution game analysis of water saving and pollution prevention.

In behavioural economics' the founding use of the theory, 'Bounded Rationality and game theory were used to construct a computer virus propagation model and observed that the proposed model was able to predict the propagation of computer virus (Jin et.al., 2013). Moreover, Yao and Li (2013) ascertained that the concept of Bounded Rationality 'can be used to study loss of aversion and optimism. In this regard, psychological adaptation was examined within the context of incomplete information. Jin et. al (2013) confirmed that the 'loss of aversion and optimism occurs when the degree of information incompleteness exceeds a particular threshold which becomes more evident when information is sparser, concluding psychological biases benefit from apparent information incompleteness when value creation is considered' (Jin et. al., 2013:9).

Many research studies authenticate that individual decision-makers are not capable of examining all the alternatives when confronted with a decision-making situation (Kalantari,

2010). These studies, similar to the research findings, also argue that even in the development of different alternatives, in the decision-making process, individuals do not explore all the implications of the alternative options to choose the optimal decision but chooses the one that best 'satisfices' the outcome (Kalantari, 2010). However, the concept of Bounded Rationality despite numerous interpretations is viewed as an alternative theory to individual behaviour for environmental issues in the context of climate change negotiations which has hardly been examined in the literature (Gsottbauer and van den Bergh, 2012).

Finally, whilst this research makes a contribution to academia and practice which is discussed in more depth in the following chapter, a good understanding of behaviour (i.e. the individual and group) is essential to explain how leaders will act concerning environmental issues in international negotiations. The complexities, temporal and geographical distributions and irreversibility's of climate change needs more research and the role of Bounded Rationality in the formulation of international climate agreements, such as, the Copenhagen Accord, needs more research (Gosttbauer and van den Bergh, 2012).

8.7 Conclusion of the Chapter

This chapter has analysed the research questions within the limits of *Bounded Rationality*. The research revealed that African Group Leaders are able to make a common decision in relation to the succession of the Kyoto Protocol. However, when faced with alternatives and in the context of the group, African Leaders fail in their decision-making. The decisions made were irrational, with group dynamics, i.e. power and influence, coalitions and political manoeuvring, coming into play. The role of South Africa in the African Group dynamics is a good case in point to substantiate the theory.

Furthermore, whilst decision-making processes appeared to be well structured on the surface within the African Group, due to contextual factors, such as, the international environment in which decisions were being made, i.e. the UNFCCC, group dynamics, human cognition and emotions, African Leaders not only failed in making decisions but formed and created independent decision-making processes which impacted upon the Common African Position.

This specific research finding is also highlighted in the context of the UNFCCC. The UN's decision-making processes in relation to the UN charter were flouted with the *Copenhagen Accord* being made by a handful of leaders to the exclusion of most Parties. Many developing countries were dismayed and revolted against the way in which the *Copenhagen Accord* was reached.

The chapter also revealed the failure by Annex l Parties to agree deep and binding targets under the Kyoto Protocol which was a departure from the agreed negotiating mandate and

ultimately resulted in the decision by the African Group to walk out of the negotiations during the early part of COP15.

The final chapter discusses the policy implications of the research and the recommendations as a result of the study. The contributions of the research in terms of the decision-making literature and practice are also discussed. The limitations of the study are also highlighted with suggestions for further research. The reflection of the researcher's journey is also presented. The chapter ends with an overarching summary.

CHAPTER NINE CONCLUSION AND RECOMMENDATIONS

9.1 INTRODUCTION

This chapter presents the conclusion of the research and puts forward the policy implications and recommendations based on the outcomes of the study. The chapter also discusses the contributions made to academia and the contributions offered to practice. The chapter also highlights potential areas for further research in the field of decision-making and more specifically in relation to decision-making processes in an African context to help guide future international negotiations. The current outcome of the succession to the Kyoto Protocol since COP15 is also highlighted. The limitations inherent in the study are also discussed and the researcher's reflective journey on the Doctorate in Business Administration (DBA) as an academic and reflective learning journey. The chapter concludes with an overarching summary.

9.2 POLICY IMPLICATIONS

The research has explored how a group of African Leaders made a common decision in relation to the succession of the Kyoto Protocol under the UNFCCC; and the decision-making processes followed by these Leaders in the context of the controversial climate change negotiations at COP15 in Copenhagen, Denmark. The research findings have implications for both policy recommendations and future research and are discussed in the following sections below.

COP15 brought together over 220 African Leaders, in addition to representatives from other key African institutions, i.e. the AU, AMCEN, AUC, NEPAD, ECOWAS, technical experts, government officials, civil societies and other interest groups. The primary data gathered for the research was obtained from interviews and focus groups with a range of African Leaders including Presidents, Prime Ministers, Ministers, Secretary Generals, Ambassadors and Directors, to the researcher observing various proceedings and taking part in meetings as a participant-observer. The African Common Position marked a critical point in the continent's effort to address the challenges of climate change. It demonstrated Africa's attempt with '*one voice*' to be part of the international negotiations, coupled with the need for Africa to address the challenges of climate change due to the significant and adverse impacts on the continent (IPCC, 2007). As specified, Africa has the lowest per capita GHG emission rate, but is likely to bear the most serious impact as a result of climate change (IPCC, 2007). The aim for the African Leaders was to achieve a continent-wide Common Position as a result of decisions made based on a coordinated and structured decision-making process.

Whilst structured decision-making processes were developed, implemented and partially adhered to, the complex nature of the internal African decision-making processes was clearly

illustrated by the lack of unity – despite all the rhetoric between African Member States before and during COP15. As mentioned in the preceding chapter, the African Common Position took a number of years to materialise from the outset, but the process fell apart due to the splits and differences between the African Member States. It also became clear to some western allies, such as the EU, the intricate nature of the influence some of the strong emerging economies, such as China, had on the international politics on the continent.

Notwithstanding, although some of the decisions with regards to the African Common Position at the various meetings were clear, the accompanying decision-making processes were not fully adhered to, prior to, and during the last days of COP15. The poorly aligned decision-making processes as previously indicated, had a significant impact on the final outcome – *the Copenhagen Accord* which was contrary to what was required by the African Group.

Moreover, the participation of African countries in climate change negotiations and decision-making is a matter of individual and collective interest. It is therefore important, in order to achieve a positive outcome, for the strengths and knowledge of the different African Member States to be known. This was evidently lacking at COP15, as each Leader appeared to put their own country's interest before that of the continent. The lack of knowledge on the climate change challenges faced by different African Member States or regions was also apparent. The majority of Leaders spoke from the perspectives of the impacts generically, rather than regionally. The issue in this stance is that whilst climate change affects the continent as a whole, solutions will differ depending on the location of the Member State due to the varied climatic conditions across the continent.

Furthermore, the development stage of African nations varies across the continent, with most African nations belonging to the LDCs – 33 countries in total (UN, 2010). For example, the stage of development of South Africa, Nigeria, Algeria and Angola cannot be compared to that of Togo, Senegal or Niger. In essence, African countries are not homogeneous in their development paths. Other African nations like Ghana and Uganda are fast becoming amongst the recently 'blessed' oil states which is also reflecting on their development trajectory. Furthermore, some African Member States rely heavily on agriculture, i.e. Zimbabwe.

As such, some of the key issues of negotiation do not lend themselves for Africa's '*one voice one vision' strategy*. Key to this issue is finance; an example is that of Ethiopia and South Africa '*selling out'* the rest of Africa for economic gains. Other critical issues resolve around differentials in incentives and support measures which would potentially be given to African countries identified as LDCs.

Therefore these issues, until addressed, from the researcher's perspective make it impossible and unrealistic for the continent to negotiate with an African Common Position and '*one voice'*.

With regard to the skills of the African negotiators, there were many occurrences where the contributions by African Leaders demonstrated a sub-optimal appreciation of the decision-making processes, UNFCCC procedures and the detailed negotiating issues. In the Plenary sessions as an observer, the trend was to rely mainly on experts and institutions from outside Africa to render technical scientific analyses, especially in the meetings of the G77 and China. Moreover, in the African Group meetings the more dominant countries like South Africa, Nigeria, Kenya and Algeria were vocal which could have been attributed to the poor technical skills and abilities of the negotiators from other African Member States. Clearly, South Africa had a disproportionate share of the negotiations and ultimately benefited in terms of the outcome of COP15, demonstrating its unrivalled power and influence in the group dynamics amongst African Leaders.

The presence of linguistic differences on the continent is another factor which needs to be taken into account in addressing the differences between African Member States in relation to climate change decision-making. English speaking nations (Anglophone) are likely to align with the EU, in comparison to some of the Arabic speaking nations who are likely to go against the EU when forming alliances.

Furthermore, consideration needs to be given to the size of Africa's delegations to future UNFCCC COP meetings. Whilst the study did not analyse delegation size in depth, Africa as a continent had a relatively large delegation; however this was significantly smaller in comparison to emerging economies such as China and those of the developed countries. The implications of this were that at some of the technical meetings, e.g. REDD, land use, CCS, LULUCF, only two or three African Member States participants attended in comparison to 15 to 20 individuals from the developed nations.

Whilst the African Common Position calls for the international community to support the continent in implementing climate change programmes, and at the same time achieving sustainable development, these commitments not only need to be translated into action, but must have the decision-making processes and governance structure to support them.

As such, whilst the African Union is a well-established institution on the continent, due to the significant impact climate change is having and is likely to continue to have on the continent, a separate and single well-established institution focusing on climate change should be established. This will enable better co-ordination of activities relating to climate change and more specifically strengthen the decision-making processes and governance arrangements to address this challenge. This will also enable closer evaluation and monitoring of existing policies, initiatives, processes and structures.

Policy implications for Africa are as follows:

i. *There is need for more in-depth analysis of the decision-making processes to uncover the drivers and dynamics within the African Group, the African Union and other African institutions, especially since there are potential differences of interest between Member States, i.e. the oil-producing countries, different sub-regions, middle-income and emerging middle-income countries and the LDC's.*

ii. *The development of a comprehensive climate change policy which should be aimed at climate change in Africa and be based on a detailed analysis of the specific issues facing African countries and regions. The future strategy should combine the likely impacts on development and future development scenarios in specific African regions.*

iii. *Policy makers and the UN should be aware of the possibility of political abuse by developed and emerging economies on climate change negotiations and decision-making to avoid their responsibilities. Measures should be put in place to prevent such practices as evident during COP15.*

9.3 RECOMMENDATIONS

The research explored how a group of African Leaders could come together to make a common decision on climate change in relation to the succession of the Kyoto Protocol utilising the theory of Bounded Rationality of decision-making. As a result, there are several recommendations as a result of this study.

The coming together of many African Leaders to take a common stance in addressing climate change is extremely novel, and therefore should be given some recognition as a step in the right direction as it enabled the definition of decision-making processes across the continent involving numerous institutions to facilitate the Common African Position.

i. *An analysis of the African institutional decision-making processes could be beneficial for future common positions agenda activities for Africa at other international negotiations to help them orientate the enhancement capacities of African negotiators.*

ii. *The establishment of a new institution with sufficient autonomy and financial commitment to deal with climate change in terms of challenges, solutions, policy development, including the implementation and monitoring of initiatives and programmes. This will enable better co-ordination of activities relating to climate change and more specifically strengthen the decision-making processes and governance arrangements to address this challenge*.

iii. *The newly formed BASIC group composed of Brazil, South Africa, India and China should be followed closely to see what their potential influence on a future climate agreement could be. More importantly, the actual weight of South Africa as a partner in this group should be evaluated and its role within the context of the African Group in future decisions and negotiations under the UNFCCC.*

iv. *A comprehensive study should be undertaken to understand what factors of consensus and divergence exist in the African Group in relation to addressing climate change.*

v. *A comprehensive process mapping exercise at the strategic level should be undertaken to identify and understand the African institutional decision-making processes and key stakeholders which exist to address climate change across the continent.*

vi. *Additional training and briefing should be given to leaders involved in climate change negotiations and decision-making as this will help strengthen the African Group's position in future and avoid conflicting views not being adequately managed as seen during COP15.*

vii. *Decision-making processes should be defined for communication on behalf of the African Group at future international climate change conferences and events when Africa is presenting a joint or regional position to ensure the consistency of messages. This will avoid the risk of Africa 'speaking with several voices' sending conflicting messages.*

viii. *A manual defining the decision-making processes and procedures in climate change decisions and negotiations for the continent of Africa should be developed and circulated to all Parties for use at UNFCCC COP meetings.*

ix. *A comprehensive guide should also be developed on decision-making processes at UNFCCC COP meetings for the benefit of African Member States participants new to the process. Furthermore, prior to each COP meeting a briefing should be developed highlighting the key issues for Africa and the ideal outcome, alternative outcome and position to take on specific and controversial issues to ensure a common stance.*

x. *Careful consideration should be given as to whether Africa should be making decisions on a continent-wide basis or whether decisions should be negotiated on a regional basis due to the differences in terms of the impact of climate change.*

9.4 CONTRIBUTIONS OF THE THESIS

The research makes a number of contributions to both academia and practice.

9.4.1 CONTRIBUTION TO ACADEMIA

Interest in strategic decision making and decision-making processes has been at the forefront of management research (Nutt, 2011); however, whilst empirical studies have been useful, they have been criticised due to limited insights. Furthermore numerous studies have been undertaken in developed nations, such as the USA, Canada and strong emerging economies such as China, with limited research conducted in other national regions and cultures, such as Africa and in the context of climate change from an African Leader's perspective.

As such, this study contributes to knowledge in several ways. Firstly, it has expanded the existing literature dealing with negotiations and decision-making processes. It has also extended the literature on decision-making and decision-making processes in the context of climate change involving a group of leaders.

Furthermore, with regards to investigating decision-making processes in the context of climate change involving a group of African leaders becomes the first of its kind as there was no previous research on the topic under consideration. This study also paves the way for future research as there is potential for further research on the topic related to decision-making processes in the context of climate change involving a group of African leaders to examine how African leaders have progressed in international decision-making since COP15 by way of a comparative study to examine whether there have been improvements to the process. The researcher believes this study has therefore made a contribution to knowledge as the topic dealing with negotiations and decision-making processes in the context of climate change involving a group of African leaders is under researched and adds a new dimension to the application of Bounded Rationality.

More specifically, the study contributes to academia as follows:

i. *Bounded Rationality*: Extended the concept of Bounded Rationality further, research on international negotiations to date has assumed rational behaviour rather than actors exhibiting some form of Bounded Rationality (Gosttbauer and van den Bergh, 2012). The research therefore shows how particular deviations from full rationality affects group decision-making in climate change negotiations which has so far hardly been examined in the literature (Gsottbauer and van den Bergh, 2012).

Furthermore, the concept of Bounded Rationality in the study takes a behavioural stance to strategic decision-making using qualitative methods rather than a mathematical approach based on a quantitative approach (Jones, 1999), thereby further contributing to the research in this field. The contribution is also novel as it utilises the concept of Bounded Rationality by examining decision-makers in the context of climate change based on a historic worldwide unique case study – COP15 (UN, 2009).

ii. *Increased focus on strategic decision-making and outcomes*: The research contributes to the field of strategic decision-making, more specifically the use of *Bounded Rationality* in decision outcomes with international implications. As shown in Figure 9, the research shows the linkages in the strategic decision-making literature between context, process and outcomes indicating the much needed contribution to research relating to decision outcomes (Papadakis, 2010). Furthermore, according to Rajagoplan et. al., (1998) the outcome stems from the processes adopted as well as the influence of the context and content, resulting in research that identifies how outcomes are influenced by process, the situation, the type of decision or by a combination of these factors which this study explores.

iii. *National Culture*: the research also contributes to the field of strategic decision-making in the context of climate change from the perspective of African Leaders. According to Nutt and Wilson (2010) the results of studies emerging from non-US countries tend to generalise to other cultures. Furthermore some cultures are not adequately researched (Papadkis et. al., 2010) i.e. Africa.

iv. *Content and Process Research*: The study contributes to the field of strategic decision-making and decision-making processes, as many scholars have criticised the split between content research and process research (Nutt and Wilson, 2010). As such, researchers are urged to treat content and process as complementary to each other and not as alternatives (Elbana, 2006).

v. *Methodology*: Management practitioners in the field verify that small sample inductive studies are more likely to yield managerial relevance than larger scale hypothetic-deductive studies (Padadkis et. al., 2010). This study is based on a historic single unique case study using a qualitative approach. The practical implications of the study are therefore discussed below.

9.4.2 CONTRIBUTION TO PRACTICE

The research also makes contributions to practice as follows:

i. The research provides the opportunity for Bounded Rationality to be taken into account in the design of environmental policy and during international climate change negotiations and decision-making.

ii. A better understanding of the decision-making processes adopted by the African Group as it relates to climate change negotiations and decision outcomes in the context of climate change.

iii. The research provides the opportunity for the weaknesses in the decision-making processes of the African Group to be identified and improved for future climate change negotiations.

iv. Provides the opportunity for defined decision-making processes to be developed for the African Group's communication and media activities at international meetings such as the UNFCCC to ensure the consistency of messages.

v. A better understanding of Africa's position in the climate change negotiations has been established. The differences of where African nations deviate on the issues and how to address these issues in relation to climate change have been brought to the fore.

vi. The African Common Position can provide Africa with the framework and decision-making processes to move forward towards better integration. Climate change is a continent-wide issue and could help toward better co-operation at the regional and continent level.

vii. The research provides a better understanding of African Group dynamics and how this can be effectively managed at future UNFCCC COP meetings and other international forums.

9.5 SUGGESTIONS FOR FURTHER RESEARCH

There are several areas for future research for which this study can form a platform. From the study it was evident that the role of national political and economic practicalities plays an important part in the decision-making processes. This therefore raises a number of potential research questions in the decision-making and leadership literature.

As climate change decision–making and negotiations demonstrate, determining an 'African Position' of some form, i.e. regional or continent-wide, is a complex process involving different countries' interests and stakeholder organisations, i.e. the AU, ECOWAS, AUC, NEPAD, EAC, etc. as well as different leadership styles.

As evident in the literature review and as shown in Table 1, there is the need for further research in the field of strategic decision-making and decision-making processes (Nutt and Wilson, 2010). A further dimension is the limited research undertaken in the strategic decision-making literature and the inclusion of leaders, such as CEOs and Top Management Teams (Papadakis et. al., 2010). Moreover, whilst there has been a strong call for research in the content of decision-making, 'context' is also an important dimension. Jarzabkowski (2005) refers to this as the *'situation'* and, to date, very few studies in the area of strategic decision-making have been viewed from the perspective of climate change, and also from an African perspective (Nutt, 2011).

Hence, future research in strategic decision-making, more specifically from an African perspective should focus on addressing questions such as:

i. How can the theory of Bounded Rationality aid in climate change negotiations and decision making in the international arena.
ii. How, why and where do decision-making processes go wrong during international negotiations?
iii. What are the key drivers and interests shaping pan-African decision-making processes?
iv. What are the areas of consensus and divergence in decision-making in climate change negotiations amongst African Member States?
v. Which African countries and leaders can be seen as the key stakeholders in decision-making at the regional and continental levels?
vi. How are regional and continental group dynamics amongst African Leaders managed?
vii. How do external actors exploit decision-making processes in Africa at international negotiations?
viii. What is the relationship between decision-making and successful outcomes?

These areas of research, which have received only limited attention in the research arena, are important in building partnerships within the continent on global challenges such as climate change, peace and security, and economic development (Onyenma, 2011).

9.6 LIMITATIONS OF THE STUDY

As with all research, this study is not without its own limitations. In order to balance this research, it is necessary to discuss some of the short comings of this study.

The research uses the theory of *Bounded Rationality* to explore the decision-making processes of African leaders using a qualitative approach based on a single, unique and revelatory case study. This qualitative case study, as an approach to research, allowed the researcher to explore the decision-making process of African leaders from a variety of perspectives which allowed for multiple facets of the case to be revealed and understood. A description of the various steps in the decision-making processes of African leaders emerged from the analysis of the data. However, due to the numerous impacts and ambiguity of climate change, conflicting and hidden agendas of African Member states, African leaders were operating under stress and immense time constraints. This resulted in bad decisions being made based on imperfect information and 'sweeteners' from specific developed nations and emerging economies, in addition to, the circumvention of the agreed African decision-making process specified as part of the African Common Position. These threats need to be taken into account in terms of the role of *Bounded Rationality* in international climate change negotiations and decisions in order to consider all factors in the decision-making process. Whilst the research acknowledged these issues, 'hidden' deals between specific Members of the African Group and some developed nations were not transparent, i.e. South Africa and Ethiopia.

The sheer size of the United Nations Climate Change Conference in Copenhagen was another limitation of the research in terms of the number of attendees and amount of data that was collected by the researcher.

Firstly, the number of African Leaders present surpassed the expectations of the researcher. It was therefore impossible to interview the head of each African delegation, as had originally been intended by the researcher. The pre-pilot and pilot in Thailand, Bangkok and Barcelona, Spain in terms of delegate numbers from African Member states and other Party Members were much smaller in comparison to COP15. As such, the number of attendees at COP15 was overwhelming.

Secondly, whilst the case was a single case study, it was a 'unique' event, and as such, there was an immense amount of data available in the form of documentary evidence. The documentary evidence gathered was used to validate the primary data; however, the volume of data collected, i.e. primary and secondary data by the researcher was immense. This made the analysis of the data a challenge due to the amount of data collected from the research. In essence the researcher was swamped with data which made the analysis a challenging.

Furthermore, due to the volume of data collected from the study, analysis of the data took longer than had original scheduled on the researchers time plan.

In relation to analysis of the case, researchers have argued that '*different versions of the qualitative approach also attempt to characterise the characteristics properties of the qualitative approach and these characterisations are also quite heterogeneous' (Hodkinson and Hodkinson, 2001:9).* From the researchers perspective representation of data proved challenging, as different issues in qualitative research can be presented in different ways based the approach taken and emphasis *(Hodkinson and Hodkinson, 2001).* For instance, the description of COP15 from the researcher's perspective does not give the actual magnitude and uniqueness of the event in *'reality'*. Therefore other forms of representation in the form of pictures were used to support the write up and to validate the case.

Additionally, some aspects of the study were represented in numerical form, i.e. number of attendees, however, some researchers have argued that statistics and other forms of quantification should not be, and are not used in qualitative research (Strauss and Corbin, 1998). Conversely, other researchers have argued that qualitative research can use different forms of quantification. The researcher therefore used a limited amount of numerical data to analyse the case and it is acknowledged that a quantitative approach or a mixed methods approach could have been adopted for the study.

Accessibility to some of the African Leaders was another limitation worth highlighting. Whilst privileged access was given to the researcher, access to a number of Leaders was still a challenge, especially during the high-level segment of COP15. This was due to the extremely tight security arrangements as a result of the extra-ordinary number of world leaders present at the conference.

A further limitation related to timing of the various plenary and negotiation meetings. Most of the plenary sessions and side meetings over-ran, including the late scheduling of certain meetings, e.g. AMCEN. The late meetings resulted in constant changing of the interview schedule of the one-to-one interviews and two of the focus group meetings.

The need for an interpreter for some of the party members from the French-and-Arabic speaking African nations was another limitation of the research, as this impacted on the speed at which the interviews and focus groups could be conducted.

However, the various limitations did not affect the quality and output of the research undertaken.

As previously discussed in Section 4.5.2 relating to the integrity of case study research, by definition case studies can make no claim to be typical (Bryman, 2012). In other words the research findings cannot be generalised (Bryman, 2012). Furthermore, because the current study is based on a single case, unique and revelatory case and the analysis is non-numerical, there is no way to establish the probability that the data is representative of some larger population. The research findings are '*intended to be general in respect of theory and not to population*' (Yin, 1989: 39). Yin (1989: 40) asserts:

> '*Analytical generalisation is relevant in qualitative research. The concept means that analytical understanding is made possible as a result of the study by lifting the empirical material to a general level, where the analysis of people's behaviour is made possible with the purpose of understanding their motivations. This is made possible by strategic choice of informants relevant to the study and not by statistically drawn samples".*

The intention as discussed was to explore the decision-making processes of African leaders in depth based on the theory of Bounded Rationality in the context of climate change with the aim of understanding the decision processes and putting forward recommendations.

9.7 THE SUCCESSION OF THE KYOTO PROTOCOL SINCE COP15

Since the failure of COP15 a number of subsequent COP meetings have taken place. The section below gives a high-level update on the progress made to date in relation to the outcome of the succession of the Kyoto Protocol as it relates to the research.

9.7.1 CANCUN, MEXICO COP16/CMP6

The UNFCCC, COP16 took place in Cancun, Mexico in December 2010. Under the Convention track, Parties continued to recognise the need for deep cuts in global emissions in order to limit global average temperature rise to 2°C as in COP15. A number of agreements were put in place, including an agreement to keep the global long-term goal under regular review and consider strengthening it during a review by 2015, including considering limiting the global average temperature rise to a target of 1.5°C (ENB, 2010).The emission reduction targets and nationally appropriate mitigation actions (NAMAs) communicated by developed and developing countries (ENB, 2010) were also noted.

Furthermore, the Cancun Agreements also established several new institutions and processes, including the Cancun Adaptation Framework and the Adaptation Committee, and the Technology Mechanism (ENB, 2012). The Green Climate Fund (GCF) was created and designated as a new operating entity of the Convention's financial mechanism governed by a 24-member board. Parties also agreed to set up a Transitional Committee tasked with the

Fund's design and a Standing Committee to assist the COP with respect to the financial mechanism. Parties also recognised the commitment by developed countries to provide US$30 billion of fast-start finance in 2010-2012, and to jointly mobilise US$100 billion per year by 2020 (ENB, 2012) as identified during COP15.

9.7.2 DURBAN, SOUTH AFRICA – COP17/CMP7

The UNFCCC in Durban, South Africa, took place from 28th November to 11th December 2011. The Durban decision outcomes covered a wide range of topics, notably the establishment of a second commitment period under the Kyoto Protocol, a decision on long-term cooperative action under the Convention and agreement on the operationalisation of the *Green Climate Fund* (GCF) (TWN, 2011). Parties also agreed to launch the new *Ad hoc Working Group on Long Term Co-operative Action*-the ADP, with a mandate '*to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties'* (ENB, 2012). The ADP is scheduled to complete negotiations by 2015. The outcome should enter into effect from 2020 onwards.

9.7.3 DOHA, QATAR - COP18/CMP8

The most recent UNFCCC meeting took place in Doha, Qatar from 26th November to 8th December 2012. The negotiations in Doha focused on ensuring the implementation of agreements reached at the previous conferences, since COP15.

The package of *'Doha Climate Gateway*' decisions adopted on the evening of Saturday 8th December2012 marked significant progress in the decision-making by the international community in relation to the succession of the Kyoto Protocol. More specifically, the decision included amendments to the Kyoto Protocol to establish its second commitment period. This has taken three years since the research was conducted. Furthermore, having been launched at CMP 1 in 2005, the AWG-KP terminated its work in Doha. The Parties also agreed to terminate the AWG-LCA and negotiations under the Bali Action Plan. Key elements of the outcome also included agreement to consider loss and damage; i.e. institutional mechanism to address loss and damage in developing countries including Africa that are particularly vulnerable to the adverse effects of climate change. This no doubt was to the delight of many African Group Leaders and other developing nations. Notwithstanding, the African Group is still fraught with disunity and internal hidden agendas, with a great deal of work to do in terms of improving decision outcomes in climate change to the benefit of African nations. There is also the need to improve and clearly define decision-making processes and ensure a '*uniform voice'* where applicable, in international decision-making at the strategic helm.

9.8 Reflecting on the DBA Research Journey

This section aims to reflect and analyse the researcher's academic journey of undertaking the Doctorate in Business Administration (DBA) at Durham University Business School. An analysis into the reflective learning is drawn upon, more specifically, on the works of Kolb's (1984) Experiential Learning Model. The knowledge and skills gained from the experience of studying on the DBA programme, undertaking the research and the development as a researcher is reflected upon.

9.8.1 Background Before Embarking on the DBA Programme

The DBA programme was embarked upon to develop skills as a researcher. Working as a management consultant, a large proportion of the work involves conducting research to help develop solutions for clients. Furthermore, acquiring knowledge and the idea of knowing a particular field of interest in depth attracted the researcher immensely.

Furthermore, the attainment of a DBA would also enhance the career prospects and enable the researcher to get into the academic arena at a later career stage.

Durham Business School was chosen as it is a world renowned institution, with a wealth of academic knowledge which the researcher would be able to draw upon. Furthermore, the structure of the course suited the researchers work schedule as the programme could only be undertaken on a part-time basis due to work commitments. The appeal to the researcher was the opportunity to discover and understand the different aspects of how to conduct research and learn about research philosophy in terms of a researcher's ontological and epistemological position and the researcher's research paradigms.

9.8.2 Reflective Learning – A Perspective

Since the early 1990s, theories surrounding reflective learning have been an active area of research in a number of fields, such as, professional education and human resource development (Pee et. al., 2000). Moreover, a number of journal articles in the fields of management, nursing, medicine, pharmacy, decision science, economics and the various subdivisions of education have also placed an emphasis on the importance of using reflection as a learning tool (Pee et. al., 2000; Schön 1983, 1987).

According to Dewey (1993:9), one of the earliest experts in the subject, reflection is defined as:

> …*''an active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends'* (Dewey, 1993:9).

Dewey (1933:12) is of the view that reflective learning is a combination of two interrelated ideas:

i. …''*A state of doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and;*

ii. *An act of searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity'* (cited in Hay et. al., 2004).

Building on Dewey's (1933) theory, Kolb (1984) expressed reflective learning as a cycle of learning which consists of four stages, *Concrete Experience (or feeling); Reflective Observation (or watching); Abstract Conceptualisation (or thinking) and Active Experimentation (or doing).*

Kolb (1984) asserts that during the research researchers will need to come to terms with their experiences and this in turn will:

> … *''provide a basis for future action; initiating new or adapted ideas in the process*' (cited in Hay et. al., 2004).

Similarly, Schön (1983) linked reflection and experience with the concept of reflection-in-action as:

> …*''on the spot surfacing, criticising, restructuring and testing of intuitive understandings of experienced phenomena'* (Schön, 1983:242).

Furthermore, Boyd and Fales (1983) portrayed reflection as a '*mechanism for change*.' (cited in Hay et. al., 2004). Boyd and Fales (1983) state that reflective learning is:

> …*''the process of internally examining and exploring an issue of concern triggered by an experience, which creates and clarifies meaning in terms of self and which results in a changed conceptual perspective' (*Boyd and Fales (1983:100).

More recently, reflection and reflective learning have been expressed in a number of ways. Van Woerkom (2004) defines reflection as '*adaptive learning*', Dempsey et. al., (2001) express reflection as '*self-construction'*, Loo (2002) defines reflection as 'self-awareness', McClellan (2004) portrays reflection as '*coordinated understanding*', and Cope (2003) describes reflection as '*critical self-reflection*.'

In summary, following the various definitions of reflective learning, it is clear there is a resounding underlying theme from the researcher's perspective which is a combination of:

- *The experience of new ideas, concepts and theories.*
- *The ability to conduct an internal examination of oneself.*
- *The ability to combine the new experiences with existing knowledge.*
- *The ability to reflect on the new experiences.*
- *The ability to adapt and learn from new experiences.*
- *The ability to translate and test out the new experience.*
- *The ability to reflect on past experiences (either negative or positive) and coordinate with new experiences for the purposes of understanding and learning. This therefore enables one to challenge any previously held assumptions and beliefs.*
- *The ability to seek alternatives and identify areas for improvement*.

9.8.3 KOLBS' EXPERIENTIAL LEARNING THEORY

Kolb (1984) defines learning in a variety of ways:

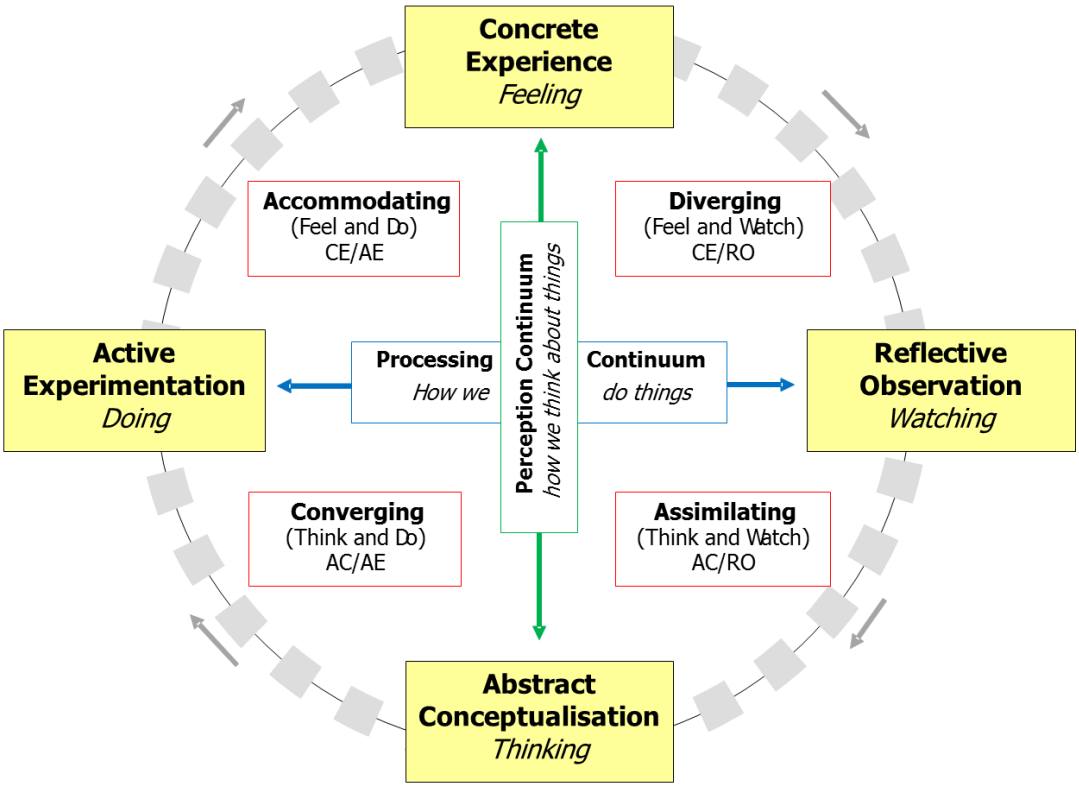
> *…''a process, not in terms of outcomes…a continuous process grounded in experience that requires the resolution of conflicts between dialectically opposed modes of adaptation to the world…a holistic , adaptive process that involves transactions between a person and the environment, a process whereby knowledge is created through the transformation of experience' (*cited in Hopkins, 1993).

Kolb's (1984) experimental learning theory originates from the works of Dewey (1938); Lewin (1951) and Piaget (1970). According to Kolb (1984) experimental learning is:

> *…'a holistic, integrative perspective on learning that combines experience, perception, cognition and behaviour'* (Kolb, 1984:24).

This experience in turn has allowed the researcher to form and develop new ideas. Kolb (1984) argues that the experiential learning theory offers a different view of the learning process from that of any other behavioral theory. Kolb (1984) further distinguishes this theory from the theories of rationalist and other cognitive theories that are inclined to primarily emphasise *'acquisition', 'manipulation' and 'recall of abstract symbols*,' and from behavioural learning theories that do not agree with the role that consciousness and subjective experience play in the learning process.

FIGURE 21 KOLB'S LEARNING STYLE



Source: Kolb (1984).

Learning is viewed as cyclical process consisting of four stages as illustrated in Figure 20. The key processes and abilities as stated earlier include:

- *Concrete experience (or feeling)*
- *Reflective Observation abilities (or watching)*
- *Abstract Conceptualisation (or thinking)*
- *Active experimentation (or doing)*' (Kolb, 1984:24).

The *Experiential Learning Model* is a continuous cycle that is grounded in experience, reflection, thinking and acting. The cycle also has two axes which converge. On the horizontal axis is the 'Processing Continuum' (how the researcher does things) and on the vertical axis is the 'Perception Continuum' (how the researcher thinks about things). Since the learning process is a continuous cycle, Kolb (1984) argues that it is possible for the researcher to join at any given point. However, once the researcher joins the process, the stages will need to be followed chronologically.

The researcher's journey began at the concrete experience stage where the learning experience on the DBA programme was new. The key feature of this stage was the recognition of the researcher's distinct style of learning. This stage raised the researcher's

awareness of various learning approaches to help her to be more accepting and open-minded of diverse learning situations in the Durham doctorate environment (Gibbs 1988).

The next stage, the reflective observation stage, involved watching others in various situations, e.g. team presentations and group assignments, DBA presentations, and reflecting on what had happened. This was followed by the next stage, the abstract conceptualisation stage, which involved the researcher building on theories and concepts from the assimilated learning from the modules and finally, the active experimentation stage, where the researcher had learnt the knowledge, by experiencing conducting research at COP15,thereby allowing the researcher to learn and create yet more experiences. Kolb (1984) also advocates that effective learning will not occur unless the individual reflects on what has been learnt.

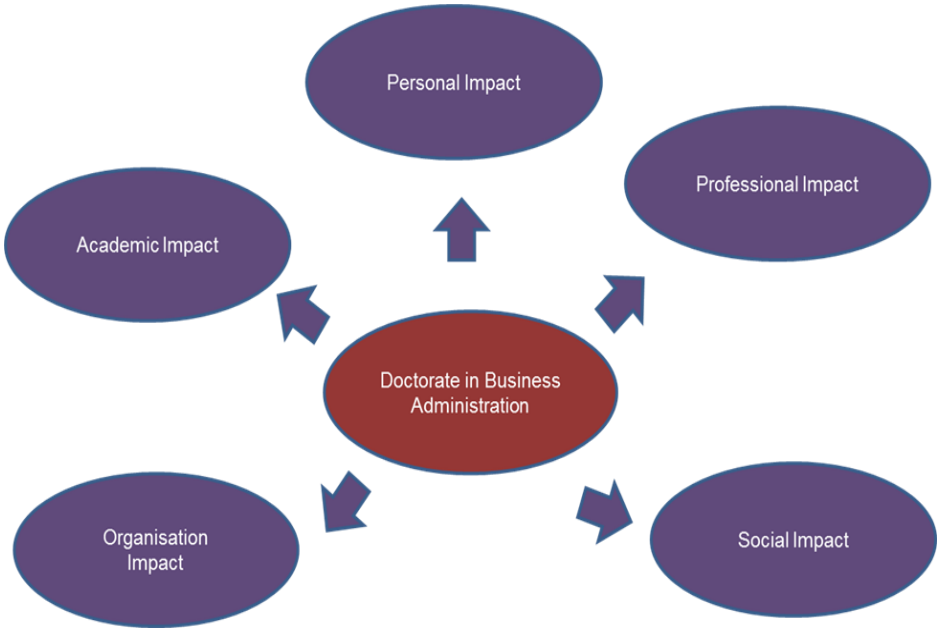
During the programme, the researcher identified with the various elements of Kolb's theory as identified above. The *Experiential Learning Theory* has been adopted by the researcher throughout the entire course of the DBA programme. The researcher tends to adopt a more holistic approach now by having an open-mind to understanding learning yet at a more comprehensive and critical level than before. The researcher approaches learning situations with a sense of realism and now embraces new experiences openly. The researcher tends to make more informed decisions, not necessarily in a cautious way but by carefully considering and assessing the various demands in the learning process while retaining an eye on the outcome or the forthcoming learning experience.

9.8.4 DBA Impacts and Personal Reflection

Pursuing the DBA at Durham Business School has not only given the researcher the opportunity to extend knowledge, competencies and skills in academia but, more importantly, the ability to apply flexibility and open-mindedness to ideas or decisions undertaken. The research training has enhanced the development of one's personal thinking skills in more depth by logically analysing, evaluating and gathering information on ideas to inform decisions before reaching a conclusion.

The DBA has also enabled the overarching development of the researcher as an individual. The various impacts of undertaking the DBA are illustrated in Figure 21 below. These include academic impacts, personal impacts, professional impacts, social impacts and organisational impacts.

FIGURE 22 KEY AREAS OF PERSONAL REFLECTION



Source: Developed by the Researcher.

i. Academic Impact

Academically, embarking on the DBA programme has allowed the researcher to delve into an area of interest in immense detail. Undertaking a comprehensive literature review in the fields of strategic decision-making, decision-making processes and climate change in the context of the UNFCCC has resulted in a more in-depth understanding of the various research studies in addition to the different aspects of the literature research area. Learning about the different research studies undertaken in my research field has been extremely rewarding and also enabled the identification of the research gap for the current study. The contributions this study makes to academia and practice is discussed earlier in Section 9.4.The study also allowed for the identification of future research areas which emerged from the study.

The researcher was very fortunate to have Professor Nikos Bozionelos, a well-known world renowned academic as the supervisor for the thesis. The rigorous intellectual challenges and support given by Professor Nikos Bozionelos allowed the researcher to think outside the box, to critically analyse and scrutinise ideas, hence guiding and formulating the researcher's thinking process over the years.

ii. Personal Impact

The journey to achieving a Doctorate in Business and Administration has been a long and hard road but has certainly been beneficial. The programme has involved a number of highs and lows and has been a relatively lonely journey, especially following the block modules of

the course. The interest and passion in the research area and the ability to develop as a researcher, in addition to the potential contributions the research will make to practice kept the motivation for the completion of the thesis. Delving into the literature and conducting the main study at the historic unique climate change conference in Copenhagen was one of the main highlights of the research journey. Keeping motivated at a crucial stage in the researcher's personal life was a challenge, but the aim of successfully completing the DBA programme helped to spur the researcher on, as it was viewed as a positive endeavour and thereby provided the additional strength to face the challenges.

iii. Professional Impact

The DBA has also helped the researcher to develop and acquire much-needed research skills required in the professional arena. Research skills are important in the management consultancy industry, and as such, have helped to build the researcher's professional credibility. Furthermore, the study '*How do African Leaders make a common decision in relation to the succession of the Kyoto Protocol?'* has helped to strengthen our service offering as a consultancy, both in terms of management techniques and environmental management. As a researcher, the ability to read a research paper and assess the theoretical, methodological and analytical aspects of the paper and how it contributes to academia and practice has been extremely valuable.

iv. Organisation Impact

Embarking on the DBA has added credibility to the organisation from the perspective of one of the Directors of the company. Furthermore, the course fulfills the criteria for continuous professional development and the company's individual personal development plan. The organisation has further benefitted from access to the latest management research techniques and best practices in the management and business field. Access to various business databases such as EBSCO has also assisted the organisation.

Another additional benefit of the DBA to the organisation includes the transfer of research skills and the transfer of knowledge from the various modules attended to members of staff. Access to analytical tools such as NVIVO and Endnotes has also been advantageous.

v. Social Impact

Pursuing the DBA enabled the attendance at various management conferences and the opportunity to meet and socialise with other doctoral students and academics from other management institutions around the world.

9.9 CONCLUSION

The UN Climate Change Conference in Copenhagen, Denmark, took place in December 2009. The high-profile historic and unique event was marked by disputes over the transparency and decision-making process of the UN. During the high-level segment, informal negotiations took place in a group consisting of major economies and representatives of regional and other negotiating groups. Late in the evening of 18th December these talks resulted in a political agreement: the '*Copenhagen Accord*', which was then presented to the COP plenary for adoption. There was dismay and chaos at COP15; however, after 13 hours of debate, delegates ultimately agreed to '*take note*' only of the *Copenhagen Accord*. COP15 was seen world-wide as a total disaster.

COP15 involved not just African Leaders, but governments of the world engaging at the highest political level. The outcome of the collective decision-making processes of African Leaders was reflected in the *Copenhagen Accord* to the dismay and frustration of many African Member States, apart from a handful. The research revealed that COP15 is despondent proof that global decision-making and less than transparent decision-making processes can be a cause of failure in answering global threats such as climate change in line with the arguments of Bounded Rationality in group situations. Parties had to 'satisfy' in terms of the outcome of COP15.

African Leaders were noted for going into COP15 in a strong position with a clearly defined African Common Position. Based on the decision-making processes by African Leaders, the African Common Position formed the basis for negotiations by the African Group. The African Common Position took into account Africa's priorities for sustainable development, poverty reduction and attainment of the Millennium Development Goals in addressing the challenges of climate change as it related to the succession of the Kyoto Protocol. Currently, the continent has the lowest per capita GHG emission rate, but is likely to bear the most serious impact of climate change (IPPC, 2007). It is expected that some African countries will suffer reduced harvests of up to 50 per cent rain-fed agriculture by 2020 (IPCC, 2007) amongst other life-threatening impacts as previously discussed.

In addressing the main research question, whilst African Leaders were able to make a common decision on climate change in relation to the succession of the Kyoto Protocol, the African Leaders failed at COP15. This was attributed to hidden agendas, disunity and the lack of a properly co-ordinated decision-making process which would have avoided African Member States negotiating in siloes, initially behind the scenes and then more overtly weeks before and during the high-level segment at COP15. The power and influence of South Africa and Ethiopia in comparison to other African Member States created a strong imbalance in the group dynamics of the African Member States. The lack of technical knowledge and the manpower to attend some of the intricate discussions was another failure by Africa. The

analyses also revealed that the impacts and regional issues varied across the continent, leaving the question to ask whether Africa should in future negotiate from a common stance. Africa's decision-making strategy emerged well in advance of COP15, with numerous meetings attended both regionally and internationally involving many stakeholders. As such, on a positive note, this was the first time Africa had come together as a continent to negotiate and communicate with '*one voice'* although the desired outcome was not achieved. Furthermore, the importance of addressing the challenges of climate change has been raised on the continent.

Turning to the literature, Simon's (1977) coup of economic rationality-based decision-making models recognised rationality as '*bounded*'. However, whilst researchers have undertaken immense research in the area of strategic decision-making, some of the key studies of which are shown in Table 1, limited research has been undertaken in Africa. The extensive review of the literature identified a handful of strategic decision-making studies in the continent of Africa. Furthermore, studies of the decision-making processes of African Leaders in the context of climate change have also not been adequately researched. This research therefore makes an academic contribution to the debate as earlier specified and further contributes to the literature on decision-making processes of African Leaders.

As earlier identified in the literature, in the *Rational Model* of decision-making most decisions are made using relatively stable routine organisational processes, which is standard within many organisations, as these processes operate incrementally in response to problems and serve to maintain the stability of an organisation over a given period. More importantly, the choice of the theory of *Bounded Rationality* was based on the broader definition of the dimensions of the organisational model beyond the neoclassical approach and was used to address the research questions in the context of the United Nations Framework Convention on Climate Change. Climate change is plagued by uncertainties, risks, temporal and geographic differences. The *Bounded Rationality theory* was therefore put forward as a more precise description of how decisions were made in relation to the UNFCCC. The fundamental assumption is that decision-makers behave rationally within the constraints of their cognitive capabilities in an attempt to define the problem and formulate alternatives. In essence, decision-makers seek to make optimal choices but, as previously stated, are hampered by the following two boundaries of rationality:

iii. All possible information about the problem and alternatives cannot be known within a given period.

iv. A decision may be based on criteria other than the rational and logical evaluation of the information, such as, the consideration of member preferences and coalitions in the organisation (Simon, 1976).

As a consequence of the cognitive constraints of not being able to gather and process information, decision-makers '*satisfy*' rather than '*optimise*' by selecting alternatives that appear' *sufficient*' to solve the problem. This view was also held by Child et. al., (2010). The African Group of Leaders at COP15 did not optimise the decisions made based on the Common African Position, but due to the specific context of COP15,group dynamics amongst African Member States, other Parties and the environment in which the decision was made, African Leaders had to '*satisfy*' based on the outcome of COP15 in effect 'take note' of the *Copenhagen Accord.*

Furthermore, regarding decision outcomes, influence tactics can affect decisions in several ways. Yukl et. al., (1996) reveal that in a response to an influence attempt, members within a group may commit, comply or resist. Alternatively, tactics can lead to varying degrees of decision-making changes on the part of the group, ranging from strong commitment to minimal compliance to complete resistance. This was evident during the High Level Segment, Ethiopia's Prime Minster, Meles Zenawi, the African Group's lead representative for the continent, did not comply with the African Common Position, but negotiated a deal to benefit Ethiopia only. Similarly, South Africa took the same approach to the detriment of the continent in terms of the potential outcome that could have been achieved at COP15. Hence, according to Jones (1999) *Bounded Rationality* asserts that *decision-makers due to human cognition and emotions occasionally fail in important decision*s'. This was evident amongst the African Leaders at COP15, thereby supporting the argument in the literature.

It can therefore be argued that decision-making processes are 'Bounded' and are often influenced by the organisational environment. Therefore, a decision-making process is not generic but is often affected by the nature of the environment, the context in which the decision is being made, the type of leadership and the decision-maker (Nutt and Wilson, 2010).

It is hoped the recommendations put forward in this study will go a long way in assisting African Leaders in addressing the challenges of decision-making and associated processes in future international arenas addressing climate change.

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APPENDICES

APPENDIX 1 MEMBERSHIP OF THE AFRICAN GROUP UNDER THE UNFCCC

					
Algeria	Angola	Benin	Botswana	Burkina Faso	Burundi
					
Cameroon	Chad	Comoros	Cape Verde	Republic of Congo	Central African Republic
					
Côte d'Ivoire	Djibouti	Democratic Republic of Congo	Egypt	Equatorial Guinea	Eritrea
					
Ethiopia	Gabon	Gambia	Ghana	Guinea Bissau	Guinea
					
Kenya	Lesotho	Liberia	Libya	Namibia	Mauritius
					
Madagascar	Mali	Mauritania	Mozambique	Malawi	Morocco
					
Niger	Nigeria	Rwanda	São Tomé	Somalia	Sierra Leone
					
Senegal	Seychelles	Swaziland	Tanzania	Sudan	South Africa
					
Togo	Tunisia	Uganda	Zimbabwe	Zambia	

Source: Compiled by the Researcher

APPENDIX 2 MAP OF AFRICAN MEMBER STATES FOR COP15

Source: www.mapword.com

APPENDIX 3 AFRICAN PARTIES TO THE KYOTO PROTOCOL

	African Country
1	Algeria
2	Angola
3	Benin
4	Botswana
5	**B**urkina Faso
6	Burundi
7	Cameroon
8	Central African Republic
9	Chad
10	Comoros
11	Congo
12	Cotes d'lovire
13	Democratic Republic of the Congo
14	Djibouti
15	Egypt
16	Equatorial Guinea
17	Ethiopia
18	Gabon
19	Gambia
20	Ghana
21	Guinea-Bissau
22	Kenya
23	Lesotho
24	Liberia
25	Libyan Arab Jamahiriya
26	Madagascar
27	Malawi
28	Mali
29	Mauritania
30	Mauritius
31	Morocco
32	Mozambique
33	Namibia
34	Niger

	African Country
35	Nigeria
36	Papua New Guinea
37	Rwanda
38	Sao Tome and Principe
39	Senegal
40	Seychelles
41	Sierra Leone
42	South Africa
43	Sudan
44	Swaziland
45	Togo
46	Tunisia
47	United Republic of Tanzania
48	Uganda
49	United Republic of Tanzania
50	Zambia

Source: Compiled by the Researcher

APPENDIX 4 AFRICAN COUNTRIES NOT SIGNATORIES TO THE KYOTO PROTOCOL

The following African Countries' are not signatories to the Kyoto Protocol

	African Country
	Zimbabwe
	Somila

APPENDIX 5 THE KYOTO PROTOCOL

KYOTO PROTOCOL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The Parties to this Protocol,
Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as "the Convention",

In pursuit of the ultimate objective of the Convention as stated in its Article 2,

Recalling the provisions of the Convention,

Being guided by Article 3 of the Convention,

Pursuant to the Berlin Mandate adopted by decision 1/CP.1 of the Conference of the

Parties to the Convention at its first session,

Have agreed as follows:

Article 1

For the purposes of this Protocol, the definitions contained in Article 1 of the Convention shall apply. In addition:

1. ‘’Conference of the Parties" means the Conference of the Parties to the Convention.

2. "Convention" means the United Nations Framework Convention on Climate Change, adopted in New York on 9 May 1992.

3. "Intergovernmental Panel on Climate Change" means the Intergovernmental Panel on Climate Change established in 1988 jointly by the World Meteorological Organization and the United Nations Environment Programme.

4. "Montreal Protocol" means the Montreal Protocol on Substances that Deplete the Ozone Layer, adopted in Montreal on 16 September 1987 and as subsequently adjusted and amended.

5. "Parties present and voting" means Parties present and casting an affirmative or negative vote.

6. "Party" means, unless the context otherwise indicates, a Party to this Protocol.

7. "Party included in Annex I" means a Party included in Annex I to the Convention, as may be amended, or a Party which has made a notification under Article 4, paragraph 2 (g), of the Convention.

Article 2

1. Each Party included in Annex I, in achieving its quantified emission limitation and Reduction commitments under Article

(a) Implement and/or further elaborate policies and measures in accordance with its national circumstances, such as:

(i) Enhancement of energy efficiency in relevant sectors of the national economy;

(ii) Protection and enhancement of sinks and reservoirs of greenhouse gases not controlled by the Montreal Protocol, taking into account its commitments under relevant international environmental agreements; promotion of sustainable forest management practices, afforestation and reforestation;

(iii) Promotion of sustainable forms of agriculture in light of climate change considerations;

(iv) Research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies;

(v) Progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention and application of market instruments;

(vi) Encouragement of appropriate reforms in relevant sectors aimed at promoting policies and measures which limit or reduce emissions of greenhouse gases not controlled by the Montreal Protocol;

(vii) Measures to limit and/or reduce emissions of greenhouse gases not controlled by the Montreal Protocol in the transport sector;

(viii) Limitation and/or reduction of methane emissions through recovery and use in waste management, as well as in the production, transport and distribution of energy;

(b) Cooperate with other such Parties to enhance the individual and combined effectiveness of their policies and measures adopted under this Article, pursuant to Article 4, paragraph 2 (e) (i), of the Convention. To this end, these Parties shall take steps to share their experience and exchange information on such policies and measures, including developing ways of improving their comparability, transparency and effectiveness. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, consider ways to facilitate such cooperation, taking into account all relevant information.

2. The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.

3. The Parties included in Annex I shall strive to implement policies and measures under this Article in such a way as to minimize adverse effects, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties and in particular those identified in Article 4, paragraphs 8 and 9, of the Convention, taking into account Article 3 of the Convention. The Conference of the Parties serving as the meeting of the Parties to this Protocol may take further action, as appropriate, to promote the implementation of the provisions of this paragraph.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol, if it decides that it would be beneficial to coordinate any of the policies and measures in paragraph 1 (a) above, taking into account different national circumstances and potential effects, shall consider ways and means to elaborate the coordination of such policies and measures.

Article 3

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

2. Each Party included in Annex I shall, by 2005, have made demonstrable progress in achieving its commitments under this Protocol.

3. The net changes in greenhouse gas emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, measured as verifiable changes in carbon stocks in each commitment period, shall be used to meet the commitments under this Article of each Party included in Annex I. The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8.

4. Prior to the first session of the Conference of the Parties serving as the meeting of the Parties to this Protocol, each Party included in Annex I shall provide, for consideration by the Subsidiary Body for Scientific and Technological Advice, data to establish its level of carbon stocks in 1990 and to enable an estimate to be made of its changes in carbon stocks in subsequent years. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, decide upon modalities, rules and guidelines as to how, and which, additional human-induced activities related to changes in greenhouse gas emissions by sources and removals by sinks in the agricultural soils and the land-use change and forestry categories shall be added to, or subtracted from, the assigned amounts for Parties included in Annex I, taking into account uncertainties,transparency in reporting, verifiability, the methodological work of the Intergovernmental Panel on Climate Change, the advice provided by the Subsidiary Body for Scientific and Technological Advice in accordance with Article 5 and the decisions of the Conference of the Parties. Such a decision shall apply in the second and subsequent commitment periods.

A Party may choose to apply such a decision on these additional human-induced activities for its first commitment period, provided that these activities have taken place since 1990.

5. The Parties included in Annex I undergoing the process of transition to a market economy whose base year or period was established pursuant to decision 9/CP.2 of the Conference of the Parties at its second session shall use that base year or period for the implementation of their commitments under this Article. Any other Party included in Annex I undergoing the process of transition to a market economy which has not yet submitted its first national communication under Article 12 of the Convention may also notify the Conference of the Parties serving as the meeting of the Parties to this Protocol that it intends to use an historical base year or period other than 1990 for the implementation of its commitments under this Article. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall decide on the acceptance of such notification.

6. Taking into account Article 4, paragraph 6, of the Convention, in the implementation of their commitments under this Protocol other than those under this Article, a certain degree of flexibility shall be allowed by the Conference of the Parties serving as the meeting of the Parties to this Protocol to the Parties included in Annex I undergoing the process of transition to a market economy.

7. In the first quantified emission limitation and reduction commitment period, from 2008 to 2012, the assigned amount for each Party included in Annex I shall be equal to the percentage inscribed for it in Annex B of its aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A in 1990, or the base year or period determined in accordance with paragraph 5 above, multiplied by five. Those Parties included in Annex I for whom land-use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year or period the aggregate anthropogenic carbon dioxide equivalent emissions by sources minus removals by sinks in 1990 from land-use change for the purposes of calculating their assigned amount.

8. Any Party included in Annex I may use 1995 as its base year for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride, for the purposes of the calculation referred to in paragraph 7 above.

9. Commitments for subsequent periods for Parties included in Annex I shall be established in amendments to Annex B to this Protocol, which shall be adopted in accordance with the provisions of Article 21, paragraph 7. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall initiate the consideration of such commitments at least seven years before the end of the first commitment period referred to in paragraph 1 above.

10. Any emission reduction units, or any part of an assigned amount, which a Party acquires from another Party in accordance with the provisions of Article 6 or of Article 17 shall be added to the assigned amount for the acquiring Party.

11. Any emission reduction units, or any part of an assigned amount, which a Party transfers to another Party in accordance with the provisions of Article 6 or of Article 17 shall be subtracted from the assigned amount for the transferring Party.

12. We call for an assessment of the implementation of this Accord to be completed by 2015, including in light of the Convention’s ultimate objective. This would

include consideration of strengthening the long-term goal referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius.

13. If the emissions of a Party included in Annex I in a commitment period are less than its assigned amount under this Article, this difference shall, on request of that Party, be added to the assigned amount for that Party for subsequent commitment periods.

14. Each Party included in Annex I shall strive to implement the commitments mentioned in paragraph 1 above in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention. In line with relevant decisions of the Conference of the Parties on the implementation of those paragraphs, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, consider what actions are necessary to minimize the adverse effects of climate change and/or the impacts of response measures on Parties referred to in those paragraphs. Among the issues to be considered shall be the establishment of funding, insurance and transfer of technology.

Article 4

1. Any Parties included in Annex I that have reached an agreement to fulfil their commitments under Article 3 jointly, shall be deemed to have met those commitments provided that their total combined aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of Article 3. The respective emission level allocated to each of the Parties to the agreement shall be set out in that agreement.

2. The Parties to any such agreement shall notify the secretariat of the terms of the agreement on the date of deposit of their instruments of ratification, acceptance or approval of this Protocol, or accession thereto. The secretariat shall in turn inform the Parties and signatories to the Convention of the terms of the agreement.

3. Any such agreement shall remain in operation for the duration of the commitment period specified in Article 3, paragraph 7.

4. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization, any alteration in the composition of the organization after adoption of this Protocol shall not affect existing commitments under this Protocol. Any alteration in the composition of the organization shall only apply for the purposes of those commitments under Article 3 that are adopted subsequent to that alteration.

6. In the event of failure by the Parties to such an agreement to achieve their total combined level of emission reductions, each Party to that agreement shall be responsible for its own level of emissions set out in the agreement.

7. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization which is itself a Party to this Protocol, each Member State of that regional economic integration organization individually, and

together with the regional economic integration organization acting in accordance with Article 24, shall, in the event of failure to achieve the total combined level of emission reductions, be responsible for its level of emission reductions which a Party acquires from another Party in accordance with the provisions of Article 12 shall be added to the assigned amount for the acquiring Party.

Article 5

1. Each Party included in Annex I shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol. Guidelines for such national systems, which shall incorporate the methodologies specified in paragraph 2 below, shall be decided upon by the Conference of the Parties serving as the meeting of the Parties to this Protocol at its first session.

2. Methodologies for estimating anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Where such methodologies are not used, appropriate adjustments shall be applied according to methodologies agreed upon by the Conference of the Parties serving as the meeting of the Parties to this Protocol at its first session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise such methodologies and adjustments, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to methodologies or adjustments shall be used only for the purposes of ascertaining compliance with commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.

3. The global warming potentials used to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex A shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise the global warming potential of each such greenhouse gas, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to a global warming potential shall apply only to commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.

Article 6

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

(a) Any such project has the approval of the Parties involved;

(b) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur;

(c) It does not acquire any emission reduction units if it is not in compliance with its obligations under Articles 5 and 7; and

(d) The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments under Article 3.

2. The Conference of the Parties serving as the meeting of the Parties to this Protocol may, at its first session or as soon as practicable thereafter, further elaborate guidelines for the implementation of this Article, including for verification and reporting.

3. A Party included in Annex I may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition under this Article of emission reduction units.

4. If a question of implementation by a Party included in Annex I of the requirements referred to in this Article is identified in accordance with the relevant provisions of Article 8, transfers and acquisitions of emission reduction units may continue to be made after the question has been identified, provided that any such units may not be used by a Party to meet its commitments under Article 3 until any issue of compliance is resolved.

Article 7

1. Each Party included in Annex I shall incorporate in its annual inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol, submitted in accordance with the relevant decisions of the Conference of the Parties, the necessary supplementary information for the purposes of ensuring compliance with Article 3, to be determined in accordance with paragraph 4 below.

2. Each Party included in Annex I shall incorporate in its national communication, submitted under Article 12 of the Convention, the supplementary information necessary to demonstrate compliance with its commitments under this Protocol, to be determined in accordance with paragraph 4 below.

3. Each Party included in Annex I shall submit the information required under paragraph 1 above annually, beginning with the first inventory due under the Convention for the first year of the commitment period after this Protocol has entered into force for that Party. Each such Party shall submit the information required under paragraph 2 above as part of the first national communication due under the Convention after this Protocol has entered into force for it and after the adoption of guidelines as provided for in paragraph 4 below. The frequency of subsequent submission of information required under this Article shall be determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol, taking into account any timetable for the submission of national communications decided upon by the Conference of the Parties.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall adopt at its first session, and review periodically thereafter, guidelines for the preparation of the information required under this Article, taking into account guidelines for the preparation of national communications by Parties included in Annex I adopted by the Conference of the Parties. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall also, prior to the first commitment period, decide upon modalities for the accounting of assigned amounts.

Article 8

1. The information submitted under Article 7 by each Party included in Annex I shall be reviewed by expert review teams pursuant to the relevant decisions of the Conference of the Parties and in accordance with guidelines adopted for this purpose by the Conference of the Parties serving as the meeting of the Parties to this Protocol under paragraph 4 below. The information submitted under Article 7, paragraph 1, by each Party included in Annex I shall be reviewed as part of the annual compilation and accounting of emissions inventories and assigned amounts. Additionally, the information submitted under Article 7, paragraph 2, by each Party included in Annex I shall be reviewed as part of the review of communications.

2. Expert review teams shall be coordinated by the secretariat and shall be composed of experts selected from those nominated by Parties to the Convention and, as appropriate, by intergovernmental organizations, in accordance with guidance provided for this purpose by the Conference of the Parties.

3. The review process shall provide a thorough and comprehensive technical assessment of all aspects of the implementation by a Party of this Protocol. The expert review teams shall prepare a report to the Conference of the Parties serving as the meeting of the Parties to this Protocol, assessing the implementation of the commitments of the Party and identifying any potential problems in, and factors influencing, the fulfilment of commitments. Such reports shall be circulated by the secretariat to all Parties to the Convention. The secretariat shall list those questions of implementation indicated in such reports for further consideration by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall adopt at its first session, and review periodically thereafter, guidelines for the review of implementation of this Protocol by expert review teams taking into account the relevant decisions of the Conference of the Parties.

5. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, with the assistance of the Subsidiary Body for Implementation and, as appropriate, the Subsidiary Body for Scientific and Technological Advice, consider:

   (a) The information submitted by Parties under Article 7 and the reports of the expert reviews thereon conducted under this Article; and

   (b) Those questions of implementation listed by the secretariat under paragraph 3 above, as well as any questions raised by Parties.

6. Pursuant to its consideration of the information referred to in paragraph 5 above, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall take decisions on any matter required for the implementation of this Protocol.

Article 9

1. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall periodically review this Protocol in the light of the best available scientific information and assessments on climate change and its impacts, as well as relevant technical, social and economic information. Such reviews shall be coordinated with pertinent reviews under the Convention, in particular those required by Article 4, paragraph 2 (d), and Article 7, paragraph 2 (a), of the Convention. Based on these reviews, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall take appropriate action.

2. The first review shall take place at the second session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. Further reviews shall take place at regular intervals and in a timely manner.

Article 10

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention, shall:

(a) Formulate, where relevant and to the extent possible, cost-effective national and, where appropriate, regional programmes to improve the quality of local emission factors, activity data and/or models which reflect the socio-economic conditions of each Party for the preparation and periodic updating of national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties, and consistent with the guidelines for the preparation of national communications adopted by the Conference of the Parties;

(b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change:

(i) Such programmes would, *inter alia*, concern the energy, transport and industry sectors as well as agriculture, forestry and waste management. Furthermore, adaptation technologies and methods for improving spatial planning would improve adaptation to climate change; and

(ii) Parties included in Annex I shall submit information on action under this Protocol, including national programmes, in accordance with Article 7; and other Parties shall seek to include in their national communications, as appropriate, information on programmes which

contain measures that the Party believes contribute to addressing climate change and its adverse impacts, including the abatement of increases in greenhouse gas emissions, and enhancement of and removals by sinks, capacity building and adaptation measures;

(c) Cooperate in the promotion of effective modalities for the development, application and diffusion of, and take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies, know-how, practices and processes pertinent to climate change, in particular to developing countries, including the formulation of policies and programmes for the effective transfer of environmentally sound technologies that are publicly owned or in the public domain and the creation of an enabling environment for the private sector, to promote and enhance the transfer of, and access to, environmentally sound technologies;

(d) Cooperate in scientific and technical research and promote the maintenance and the development of systematic observation systems and development of data archives to reduce uncertainties related to the climate system, the adverse impacts of climate change and the economic and social consequences of various response strategies, and promote the development and strengthening of endogenous capacities and capabilities to participate in international and intergovernmental efforts, programmes and networks on research and systematic observation, taking into account Article 5 of the Convention;

(e) Cooperate in and promote at the international level, and, where appropriate, using existing bodies, the development and implementation of education and training programmes, including the strengthening of national capacity building, in particular human and institutional capacities and the exchange or secondment of personnel to train experts in this field, in particular for developing countries, and facilitate at the national level public awareness of, and public access to information on, climate change. Suitable modalities should be developed to implement these activities through the relevant bodies of the Convention, taking into account Article 6 of the Convention;

(f) Include in their national communications information on programmes and activities undertaken pursuant to this Article in accordance with relevant decisions of the Conference of the Parties; and

(g) Give full consideration, in implementing the commitments under this Article, to Article 4, paragraph 8, of the Convention.

Article 11

1. In the implementation of Article 10, Parties shall take into account the provisions of Article 4, paragraphs 4, 5, 7, 8 and 9, of the Convention.

2. In the context of the implementation of Article 4, paragraph 1, of the Convention, in accordance with the provisions of Article 4, paragraph 3, and Article 11 of the Convention, and through the entity or entities entrusted with the operation of the financial mechanism of the Convention, the developed country Parties and other developed Parties included in Annex II to the Convention shall:

   (a) Provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in advancing the implementation of

existing commitments under Article 4, paragraph 1 (a), of the Convention that are covered in Article 10, subparagraph (a); and

(b) Also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of advancing the implementation of existing commitments under Article 4, paragraph 1, of the Convention that are covered by Article 10 and that are agreed between a developing country Party and the international entity or entities referred to in Article 11 of the Convention, in accordance with that Article. The implementation of these existing commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among developed country Parties. The guidance to the entity or entities entrusted with the operation of the financial mechanism of the Convention in relevant decisions of the Conference of the Parties, including those agreed before the adoption of this Protocol, shall apply *mutatis mutandis* to the provisions of this paragraph.

3. The developed country Parties and other developed Parties in Annex II to the Convention may also provide, and developing country Parties avail themselves of, financial resources for the implementation of Article 10, through bilateral, regional and other multilateral channels.

Article 12

1. A clean development mechanism is hereby defined.

2. The purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.

3. Under the clean development mechanism:

(a) Parties not included in Annex I will benefit from project activities resulting in certified emission reductions; and

(b) Parties included in Annex I may use the certified emission reductions accruing from such project activities to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3, as determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

4. The clean development mechanism shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Protocol and be supervised by an executive board of the clean development mechanism.

5. Emission reductions resulting from each project activity shall be certified by operational entities to be designated by the Conference of the Parties serving as the meeting of the Parties to this Protocol, on the basis of:

(a) Voluntary participation approved by each Party involved;

(b) Real, measurable, and long-term benefits related to the mitigation of climate change; and

(c) Reductions in emissions that are additional to any that would occur in the absence of the certified project activity.

The clean development mechanism shall assist in arranging funding of certified project activities as necessary.

7. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, elaborate modalities and procedures with the objective of ensuring transparency, efficiency and accountability through independent auditing and verification of project activities.

8. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall ensure that a share of the proceeds from certified project activities is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

9. Participation under the clean development mechanism, including in activities mentioned in paragraph 3 (a) above and in the acquisition of certified emission reductions, may involve private and/or public entities, and is to be subject to whatever guidance may be provided by the executive board of the clean development mechanism.

10. Certified emission reductions obtained during the period from the year 2000 up to the beginning of the first commitment period can be used to assist in achieving compliance in the first commitment period.

Article 13

1. The Conference of the Parties, the supreme body of the Convention, shall serve as the meeting of the Parties to this Protocol.

2. Parties to the Convention that are not Parties to this Protocol may participate as observer in the proceedings of any session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. When the Conference of the Parties serves as the meeting of the Parties to this Protocol, decisions under this Protocol shall be taken only by those that are Parties to this Protocol.

3. When the Conference of the Parties serves as the meeting of the Parties to this Protocol, any member of the Bureau of the Conference of the Parties representing a Party to the Convention but, at that time, not a Party to this Protocol, shall be replaced by an additional member to be elected by and from amongst the Parties to this Protocol.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall keep under regular review the implementation of this Protocol and shall make, within its mandate, the decisions necessary to promote its effective implementation. It shall perform the functions assigned to it by this Protocol and shall:

(a) Assess, on the basis of all information made available to it in accordance with the provisions of this Protocol, the implementation of this Protocol by the Parties, the overall effects of the measures taken pursuant to

this Protocol, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved;

(b) Periodically examine the obligations of the Parties under this Protocol, giving due consideration to any reviews required by Article 4, paragraph 2 (d), and Article 7, paragraph 2, of the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge, and in this respect consider and adopt regular reports on the implementation of this Protocol;

(c) Promote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under this Protocol;

(d) Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under this Protocol;

(e) Promote and guide, in accordance with the objective of the Convention and the provisions of this Protocol, and taking fully into account the relevant decisions by the Conference of the Parties, the development and periodic refinement of comparable methodologies for the effective implementation of this Protocol, to be agreed on by the Conference of the Parties serving as the meeting of the Parties to this Protocol;

(f) Make recommendations on any matters necessary for the implementation of this Protocol;

(g) Seek to mobilize additional financial resources in accordance with Article 11, paragraph 2;

(h) Establish such subsidiary bodies as are deemed necessary for the implementation of this Protocol;

(i) Seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies; and

(j) Exercise such other functions as may be required for the implementation of this Protocol, and consider any assignment resulting from a decision by the Conference of the Parties.

5. The rules of procedure of the Conference of the Parties and financial procedures applied under the Convention shall be applied *mutatis mutandis* under this Protocol, except as may be otherwise decided by consensus by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

6. The first session of the Conference of the Parties serving as the meeting of the Parties to this Protocol shall be convened by the secretariat in conjunction with the first session of the Conference of the Parties that is scheduled after the date of the entry into force of this Protocol. Subsequent ordinary sessions of the

Conference of the Parties serving as the meeting of the Parties to this Protocol shall be held every year and in conjunction with ordinary sessions of the Conference of the Parties, unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

7. Extraordinary sessions of the Conference of the Parties serving as the meeting of the articles to this Protocol shall be held at such other times as may be deemed necessary by the Conference of the Parties serving as the meeting of the Parties to this Protocol, or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one third of the Parties.

8. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not party to the Convention, may be represented at sessions of the Conference of the Parties serving as the meeting of the Parties to this Protocol as observers. Anybody or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by this Protocol and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties serving as the meeting of the Parties to this Protocol as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure, as referred to in paragraph 5 above.

Article 14

1. The secretariat established by Article 8 of the Convention shall serve as the secretariat of this Protocol.

2. Article 8, paragraph 2, of the Convention on the functions of the secretariat, and Article 8, paragraph 3, of the Convention on arrangements made for the functioning of the secretariat, shall apply *mutatis mutandis* to this Protocol. The secretariat shall, in addition, exercise the functions assigned to it under this Protocol.

Article 15

1. The Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation established by Articles 9 and 10 of the Convention shall serve as, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Protocol. The provisions relating to the functioning of these two bodies under the Convention shall apply *mutatis mutandis* to this Protocol. Sessions of the meetings of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Protocol shall be held in conjunction with the meetings of, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of the Convention.

2. Parties to the Convention that are not Parties to this Protocol may participate as observers in the proceedings of any session of the subsidiary bodies. When the subsidiary bodies serve as the subsidiary bodies of this Protocol, decisions under this Protocol shall be taken only by those that are Parties to this Protocol.

3. When the subsidiary bodies established by Articles 9 and 10 of the Convention exercise their functions with regard to matters concerning this Protocol, any

member of the Bureaux of those subsidiary bodies representing a Party to the Convention but, at that time, not a party to this Protocol, shall be replaced by an additional member to be elected by and from amongst the Parties to this Protocol.

Article 16

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, as soon as practicable, consider the application to this Protocol of, and modify as appropriate, the multilateral consultative process referred to in Article 13 of the Convention, in the light of any relevant decisions that may be taken by the Conference of the Parties. Any multilateral consultative process that may be applied to this Protocol shall operate without prejudice to the procedures and mechanisms established in accordance with Article 18.

Article 17

The Conference of the Parties shall define the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading. The Parties included in Annex B may participate in emissions trading for the purposes of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that Article.

Article 18

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, approve appropriate and effective procedures and mechanisms to determine and to address cases of non-compliance with the provisions of this Protocol, including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance. Any procedures and mechanisms under this Article entailing binding consequences shall be adopted by means of an amendment to this Protocol.

Article 19

The provisions of Article 14 of the Convention on settlement of disputes shall apply *mutatis mutandis* to this Protocol.

Article 20

1. Any Party may propose amendments to this Protocol.

2. Amendments to this Protocol shall be adopted at an ordinary session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. The text of any proposed amendment to this Protocol shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate the text of any proposed amendments to the Parties and signatories to the Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Protocol by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the

meeting. The adopted amendment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

4. Instruments of acceptance in respect of an amendment shall be deposited with the Depositary. An amendment adopted in accordance with paragraph 3 above shall enter into force for those Parties having accepted it on the ninetieth day after the date of receipt by the Depositary of an instrument of acceptance by at least three fourths of the Parties to this Protocol.

5. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits with the Depositary its instrument of acceptance of the said amendment.

Article 21

1. Annexes to this Protocol shall form an integral part thereof and, unless otherwise expressly provided, a reference to this Protocol constitutes at the same time a reference to any annexes thereto. Any annexes adopted after the entry into force of this Protocol shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

2. Any Party may make proposals for an annex to this Protocol and may propose amendments to annexes to this Protocol.

3. Annexes to this Protocol and amendments to annexes to this Protocol shall be adopted at an ordinary session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. The text of any proposed annex or amendment to an annex shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate the text of any proposed annex or amendment to an annex to the Parties and signatories to the Convention and, for information, to the Depositary.

4. The Parties shall make every effort to reach agreement on any proposed annex or amendment to an annex by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the annex or amendment to an annex shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted annex or amendment to an annex shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

5. An annex, or amendment to an annex other than Annex A or B, that has been adopted in accordance with paragraphs 3 and 4 above shall enter into force for all Parties to this Protocol six months after the date of the communication by the Depositary to such Parties of the adoption of the annex or adoption of the amendment to the annex, except for those Parties that have notified the Depositary, in writing, within that period of their non-acceptance of the annex or amendment to the annex. The annex or amendment to an annex shall enter into force for Parties which withdraw their notification of non-acceptance on the ninetieth day after the date on which withdrawal of such notification has been received by the Depositary.

6. If the adoption of an annex or an amendment to an annex involves an amendment to this Protocol, that annex or amendment to an annex shall not enter into force until such time as the amendment to this Protocol enters into force.

7. Amendments to Annexes A and B to this Protocol shall be adopted and enter into force in accordance with the procedure set out in Article 20, provided that any amendment to Annex B shall be adopted only with the written consent of the Party concerned.

Article 22

1. Each Party shall have one vote, except as provided for in paragraph 2 below.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their Member States that are Parties to this Protocol. Such an organization shall not exercise its right to vote if any of its Member States exercises its right, and vice versa.

Article 23

The Secretary-General of the United Nations shall be the Depositary of this Protocol.

Article 24

1. This Protocol shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations which are Parties to the Convention. It shall be open for signature at United Nations Headquarters in New York from 16 March 1998 to 15 March 1999. This Protocol shall be open for accession from the day after the date on which it is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization which becomes a Party to this Protocol without any of its Member States being a Party shall be bound by all the obligations under this Protocol. In the case of such organizations, one or more of whose Member States is a Party to this Protocol, the organization and its Member States shall decide on their respective responsibilities for the performance of their obligations under this Protocol. In such cases, the organization and the Member States shall not be entitled to exercise rights under this Protocol concurrently.

3. In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Protocol. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

Article 25

1. This Protocol shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon

dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.

2. For the purposes of this Article, “the total carbon dioxide emissions for 1990 of the Parties included in Annex I” means the amount communicated on or before the date of adoption of this Protocol by the Parties included in Annex I in their first national communications submitted in accordance with Article 12 of the Convention.

3. For each State or regional economic integration organization that ratifies, accepts or approves this Protocol or accedes thereto after the conditions set out in paragraph 1 above for entry into force have been fulfilled, this Protocol shall enter into force on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

4. For the purposes of this Article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of the organisation.

Article 26

No reservations may be made to this Protocol.

Article 27

1. At any time after three years from the date on which this Protocol has entered into force for a Party that Party may withdraw from this Protocol by giving written notification to the Depositary.

2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

3. Any Party that withdraws from the Convention shall be considered as also having withdrawn from this Protocol.

Article 28

The original of this Protocol, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

DONE at Kyoto this eleventh day of December one thousand nine hundred and ninety-seven. **IN WITNESS WHEREOF** the undersigned, being duly authorized to that effect, have affixed their signatures to this Protocol on the dates indicated.

Annex A

Greenhouse Gases

Carbon dioxide	(C02)
Methane	(CH4)
Nitrous oxide	(N20)
Hydrofluorocarbons	(HFCs)
Perfluorocarbons	(PFCs)
Sulphur hexafluoride	(SF6)

Sectors/source categories

Energy
- Fuel combustion
  - Energy industries
  - Manufacturing industries and construction
  - Transport
  - Other sectors
  - Other
- Fugitive emissions from fuels
  - Solid fuels
  - Oil and natural gas
  - Other

Industrial processes
- Mineral products
- Chemical industry
- Metal production
- Other production
- Production of halocarbons and sulphur hexafluoride
- Consumption of halocarbons and sulphur hexafluoride
- Other

Solvent and other product use

Agriculture
- Enteric fermentation
- Manure management
- Rice cultivation
- Agricultural soils
- Prescribed burning of savannahs
- Field burning of agricultural residues
- Other

Waste
- Solid waste disposal on land
- Wastewater handling
- Waste incineration
- Other

Annex B

Party	Quantified emission limitation or reduction commitment (percentage of base year or period)
Australia	108
Austria	92
Belgium	92
Bulgaria*	92
Canada	94
Croatia*	95
Czech Republic*	92
Denmark	92
Estonia*	92
European Community	92
Finland	92
France	92
Germany	92
Greece	92
Hungary*	94
Iceland	110
Ireland	92
Italy	92
Japan	94
Latvia*	92
Liechtenstein	92
Lithuania*	92
Luxembourg	92
Monaco	92
Netherlands	92
New Zealand	100
Norway	101
Poland*	94
Portugal	92
Romania*	92
Russian Federation*	100
Slovakia*	92
Slovenia*	92
Spain	92
Sweden	92
Switzerland	92
Ukraine*	100
United Kingdom of Great Britain and Northern Ireland	92
United States of America	93

* Countries that are undergoing the process of transition to a market economy.

APPENDIX 6 FRONT PAGE EXTRACT OF A DAILY PROGRAMME

UNITED NATIONS

Thursday, 10 December 2009

No. 4

UNFCCC Framework Convention on Climate Change

United Nations Climate Change Conference
COP 15 and CMP 5
Copenhagen, 7–18 December 2009

Daily Programme [1, 2]

Part One

Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP)
(Open to Parties and observers)

10:00–12:00 **4th meeting** **Plenary I Tycho Brahe**

1. Adaptation Fund
   [Agenda item 9]

   (a) Review of the Adaptation Fund
   [Agenda item 9 (b)]

2. Amendment of the Kyoto Protocol in respect of procedures and mechanisms relating to compliance
   [Agenda item 10]

3. Proposal from Kazakhstan to amend Annex B to the Kyoto Protocol
   [Agenda item 12]

4. Consideration of proposals by Parties for amendments to the Kyoto Protocol
   [Agenda item 5]
   (FCCC/KP/CMP/2009/2; FCCC/KP/CMP/2009/3; FCCC/KP/CMP/2009/4; FCCC/KP/CMP/2009/5; FCCC/KP/CMP/2009/6; FCCC/KP/CMP/2009/7; FCCC/KP/CMP/2009/8; FCCC/KP/CMP/2009/9; FCCC/KP/CMP/2009/10; FCCC/KP/CMP/2009/11; FCCC/KP/CMP/2009/12; FCCC/KP/CMP/2009/13)

[1] The Daily Programme is also available at <http://unfccc.int/items/5068.php>.
[2] Please consult the CCTV monitors for any last-minute changes to this Programme.

Participants are kindly requested to retain copies of documents throughout the sessions, in order to reduce paper consumption.

FCCC/2009/VI/OD/4 (Part I)

GE.09-71004

Source: Collected by the Author during the main study

APPENDIX 7 SEMI-STRUCTURED INTERVIEW GUIDE

Interview Guide

1. Introduction and preliminary remarks

I am a Post-graduate Research Student undertaking my Doctoral Research for the award of a Doctorate in Business Administration at the University of Durham, Durham Business School, Durham, United Kingdom.

The focus the research is to answer the question 'How do a group of African Leaders make a common decision on the succession to the Kyoto Protocol under the United Nations Framework Convention on Climate Change using Bounded Rationality.

The aim is to interview the leader of the delegation for each African Member State or as an alternative another senior member of the team.

I will be recording our interview and taking notes during the duration of the interview. Do you have any objections to this? All information gather from this interview will be strictly confidential and will be used for the purposes of research only. The results of the survey will be used in the thesis and for academic publications only.

Many thanks for your time in contributing to this research.

1b. Consent of the participant

2. Notes for the interviewer:

a. Remember to state name of the interviewee, time and place of the interview on the audio file and record sheet used to record the interview.

3. Interview Questions

- How does the decision-making process start within the African Group on Climate Change?
- What do you consider to be the key characteristics that influence decisions in relation to climate change?
- What do you view as the particular needs of Africa to address climate change in the decision-making process?
- Can you describe the decision-making process of the African Group under the UNFCCC?
- What are your views on the impact of climate change on Africa?

  How do the leaders get involved? What structures are used to make decisions on climate change by the African Leaders under the UNFCCC in relation to the Kyoto Protocol?
- What structures are used to make decisions on climate change by the African Leaders under the UNFCCC in relation to the Kyoto Protocol?

- Do you feel there is sufficient leadership buy-in at the strategic level within the continent of Africa?
- Do you feel the decisions made by the African Group follow a process?
- Have you encountered any problem or problems during the decision-making process?
- What do you view to be the main concerns for the African Group?
- Are there ways in which the decision-making process can be improved?
- How many Conference of Party meetings under the United Nations Framework Convention on Climate Change have you attended?
- How many African Group meeting(s) at COP have you attended?
- In light of climate change, are there any challenges you have observed with the decision-making process of the African Group?
- Can you see the relevance between the negotiation process and the eventual decision(s) taken?
- What is the relationship between the negotiation process and the eventual decision made by the group?
- Do you think the decision-making process by the African Group could be improved?

1. Introductory remarks to the Focus Group – Use the Interview Guide

2. Date, Place and Time of Meeting 3. Group No _____

Questions

1. How does the decision-making process start within the African Group on Climate Change?

2. Can you describe the decision-making process of the African Group under the UNFCCC?

3. How do the leaders get involved?What structures are used to make decisions on climate change by the African Leader sunder the UNFCCC in relation to the Kyoto Protocol?

4. What do you view as the particular needs of Africa to address climate change in the decision-making process?

5. What are your views on the impact of climate change on Africa?

6. What structures are used to make decisions on climate change by the African Leaders under the UNFCCC in relation to the Kyoto Protocol?

7. Do you feel the decisions made by the African Group follow a process?

8. Have you encountered any problem or problems during the decision-making process?

9. What do you view to be the main concerns of the African Group?

10. How many Conference of Party meetings under the United Nations Framework Convention on Climate Change have you attended?

11. How many African Group meeting(s) at COP have you attended?

12. In light of climate change, are there any challenges you have observed with the decision-making process of the African Group?

13. Can you see the relevance between the negotiation process and the eventual decision(s) taken?

14. What is the relationship between the negotiation process and the eventual decision made by the group?

15. Do you think the decision-making process by the African Group could be improved?

APPENDIX 9 THE NAIROBI DECLARATION ON THE AFRICAN PROCESS

Nairobi Declaration on the African Process for Combating Climate Change

We, African Ministers of Environment,
Having met in Nairobi from 25 to 29 May 2009 at the special session on climate change of the African Ministerial Conference on the Environment

Reinforcing the role played by the African Ministerial Conference on the Environment as a specialized technical committee of the African Union in providing leadership for environmental management and advocacy in Africa.

Recalling the decision adopted at the twelfth session of the African Ministerial Conference on the Environment to develop and submit for adoption a common negotiating position on a comprehensive international climate change regime beyond 2012 in addition to a comprehensive framework of African climate change programmes during the special session of the African Ministerial Conference on the Environment, in May 2009.

Recalling also that African Heads of State at their summit endorsed the outcomes of the twelfth session of the African Ministerial Conference on the Environment, which included the African process for combating climate change.

Noting that the Conference of the Parties to the United Nations Framework Convention on Climate Change at its thirteenth session, held in Bali, Indonesia, in December 2007, resolved to enhance urgently implementation of the Convention to achieve its ultimate objective through an agreed outcome at the fifteenth session of the Conference of the Parties;

Noting with concern that existing financial mechanisms are inadequate, complex and fragmented and have constrained African countries from gaining full access to these resources;

Noting that the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol at its first session, held in Montreal, Canada, in 2005, established an Ad hoc working group to consider further commitments for Parties included in Annex I to the United Nations Framework Convention on Climate Change for the period beyond 2012 pursuant to paragraph 9 of article 3 of the Kyoto Protocol;

Reaffirming the adoption by the African Union of the Algiers Declaration on Climate Change of 19 November 2008 in the form of a common African position and the need to speak with one voice in the negotiations process for the new legally binding global climate change regime;

Expressing concern at the scientific conclusions contained in the fourth assessment report of the Intergovernmental Panel on Climate Change, particularly as they relate to the social, economic and environmental impacts of climate change in Africa and noting that, while Africa has contributed the least to the increasing concentration of greenhouse gases in the atmosphere, it is the most vulnerable continent to the impacts of climate change and has the least capacity to adapt.

Expressing further concern about the impacts of climate change on marine and coastal ecosystems and resources resulting from sea-level rise, increasing water temperature, ocean acidification, weather and climate variability as affecting coastal communities.

Stressing the urgent need for all countries to take further actions, including more stringent and legally binding emissions reductions by all developed countries, and underscoring the importance of a successful outcome of these negotiations and the essential need for Africa to participate actively and strategically in the negotiations to ensure that its needs, interests and requirements are met,

*Stressingalso*that there is no justification in the current financial crisis to limit the obligation of developed countries regarding the provision of financial and technical assistance to developing countries in accordance with the Convention,

Stressing also that Africa's priorities are to implement climate change programmes with a focus on adaptation in such a way as to achieve sustainable development, in particular to alleviate poverty and attain the Millennium Development Goals, with emphasis on the most vulnerable groups, especially women and children.

Noting that food security and poverty alleviation are overriding concerns for Africa,

Recognizing the need to integrate Africa's existing climate change initiatives and programmes into a consolidated framework to ensure coordination and coherence in the implementation and review of climate change initiatives and sustainable development plans in Africa at all levels.

Conscious of the urgent need to support African countries in their efforts to address the reduction of emissions due to deforestation and forest degradation and recognizing further the concomitant role of African forests in the survival of communities, the economies of countries and the stabilization of the climate.

Aware of the need for global mitigation of greenhouse gas emissions as a primary mechanism to prevent long-term climate change impacts on the African region and that effective

implementation of mitigation measures offers opportunities for Africa to increase its economic competitiveness along a sustainable path of low-carbon development.

Reaffirming our commitment to implement policies, strategies, decisions and recommendations from various regional and sub-regional consultations under the auspices of the Commission of the African Union, the New Partnership for Africa's Development, the African Ministerial Conference on the Environment, regional economic communities and political groupings on climate change.

Recognizing the adoption by the African Union of the Tunis Declaration and action plan and the decision to determine the rationale and modalities for establishing an African panel on climate change, and in particular the Declaration on Climate Change and Development in Africa,in which heads of State and Government requested the Commission of the African Union to consult the African Ministerial Conference on the Environment with a view to establishing the necessary mechanisms to follow up on the implementation of that declaration,

Expressing our appreciation for the efforts of the African group of negotiators under the United Nations Framework Convention on Climate Change, working with, among others, the African Ministerial Conference on the Environment, the United Nations Environment Programme, the Commission of the African Union, the United Nations Economic Commission for Africa, the Common Market for Eastern and Southern Africa, the African Development Bank, other relevant intergovernmental institutions, civil society and other stakeholders, in the development of a common African position on the comprehensive international climate change regime beyond 2012.

Hereby declare our resolve:

1. To call upon Governments of Africa to promote further the common African position on the comprehensive international climate change regime beyond 2012 and participate actively in the continuing international negotiations, knowing that failure to reach a fair and equitable outcome will have dire consequences for Africa;

2. To agree that the African common position forms the basis for negotiations by the African group during the negotiations for a new climate change regime and should take into account the priorities for Africa on sustainable development, poverty reduction and attainment of the Millennium Development Goals;

3. Also to agree that the key political messages from Africa to inform the global debate and negotiating process, in terms both of the commitments that it seeks from the international community, and also of the actions that African countries can take themselves, should be

based on the established principles of equity and common but differentiated responsibilities and respective capabilities;

4. To urge all Parties and the international community that increased support to Africa under the future climate regime should be based on the priorities determined by Africa: adaptation, capacity-building, research, financing and technology development and transfer, including support for South-South transfer of knowledge, in particular indigenous knowledge;

5. To ensure that climate change adaptation imperatives are aligned more closely throughout regions and countries and to foster regional and international cooperation to develop appropriate adaptation financing mechanisms, in addition to the use of indigenous knowledge relating to sustainable development and natural resource management, and also to ensure improvement of climate risk management and implementation of the African regional strategy for disaster-risk reduction;

6. To call for the improvement of the Clean Development Mechanism to ensure equitable geographical distribution of projects contributing to sustainable development efforts on the continent;

7. To advocate the expansion of eligible categories to benefit from carbon credits and other international incentives in the post-2012 agreed outcome to include sustainable land use, agriculture and forest management, so as to promote agricultural productivity in a way that improves resilience and adaptation to climate change;

8. To call upon the Group of Eight to implement the recommendation contained in the Gleneagles Communiqué on climate change, energy, and sustainable development and in particular to create regional climate centres in Africa;

9. To call upon developed country Parties to the United Nations Framework Convention on Climate Change to honour their commitments in accordance with paragraph 3 of article 4 of the Convention;

10. To advocate the establishment of a compliance mechanism to ensure a more effective delivery of commitments made with regard to greenhouse gas reduction, finance, technology and capacity-building;

11. To urge developed countries to set ambitious targets to reduce their emissions, by 2020, of at least 40 per cent below 1990 levels, and, by 2050, by between 80 and 95 per cent below those levels, to achieve the concentration of 450 ppm of carbon dioxide equivalent in the atmosphere;

12. Also to urge developed countries to support Africa by providing finance, technology and capacity-building in a measurable, reportable and verifiable manner;

13. To reaffirm that Africa, in the context of environmental justice, should be equitably compensated for environmental, social and economic losses and to emphasize that Africa requires substantially scaled-up finance, technology and capacity-building for adaptation and risk management in accordance with the obligations of the Annex I Parties under the Kyoto Protocol to the Convention;

14. To agree that a coherent financial architecture for climate change, guided by agreed principles and with equitable governance and simplified access procedures, should be established to ensure the provision of direct access to funds;

15. To urge that the financial resources required to tackle climate change should be new and additional, adequate, predictable, sustainable and provided primarily in the form of grants and other innovative financing mechanisms and instruments, such as debt-for-nature swaps;

16. To call upon donors to pledge, during the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, the amount of funds for replenishment of the Global Environment Facility, which is the operating entity of the financial mechanism of the Convention and should possess at least four times the current level of financing;

17. To call upon the Global Environment Facility to continue to give high priority to African countries and to allocate financial resources based on the needs and priorities of countries and not merely on ex-ante allocation systems such as the resource allocation framework and to request the Facility to improve its procedures and to revise its co-financing policy to give African countries direct access to its financial resources;

18. To encourage the establishment of a fund to reward or provide incentives for reducing emissions through sustainable land-management practices, including forest conservation, sustainable forest management, the avoidance of deforestation, afforestation and sustainable agriculture;

19. To agree to enhance the development and implementation of programmes and activities relating to building resilience of coastal communities and their preparedness to respond to the impacts of climate change;

20. To encourage Member States to create opportunities for investment by the private sector, to address climate change;

21. To reaffirm our strong commitment that adaptation for climate change is the first priority at the national and regional levels and to work with developed countries to strengthen South-South and North-South cooperation to build adaptive capacity and improve resilience to climate change;

22. To reaffirm the need to include in a legally binding instrument or protocol clear and comprehensive mechanisms on adaptation that should respond to African priorities, among others;

23. To integrate climate change adaptation measures into national and regional development plans, policies and strategies and, where appropriate with a view to ensuring adequate adaptation to climate change, in such areas as water resources, agriculture, health, infrastructure, biodiversity and ecosystems, forests, urban management, tourism, food, land, environment and energy security and management of coastal and marine resources, taking into account cross-sectoral implications;

24. To agree that climate change mitigation efforts and actions aimed at alleviating the consequences of deforestation and forest degradation should be considered in future positive incentive mechanisms for emission reduction, taking into account the role that African forested areas, in particular those of the Congo basin, play in regulating the global climate system;

25. To agree that the environmental services provided local and indigenous communities in protecting and conserving these forests should be duly recompensed;

26. To agree that to mitigate and adapt at the speed needed extensive technology transfer, acquisition and diffusion and a much increased rate of innovation are needed and, to this end, to agree to establish an institutional framework to tackle all aspects of technology development and transfer;

27. To scale up investments to provide access to affordable and sustainable cleaner energy, especially for rural communities;

28. To agree that other mitigation measures being identified, such as additional measures to complement the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, including afforestation and sustainable agriculture and land-use management, should be vigorous, realistic and flexible to ensure the effective participation of African countries, especially smallholder land users;

29. To agree that any African climate change mitigation efforts will be voluntary and will require adequate financing, technology and capacity support;

30. To build economic and social resilience through the diversification of economies to reduce dependence on climate-sensitive sectors, including through the use of indigenous knowledge and practices and the strengthening of community organizations;

31. To call upon African countries to accelerate implementation of the African Regional Strategy for Disaster Risk Reduction and the Hyogo Framework for Action including risk monitoring, observation, early warning, risk assessment, preparedness, emergency response and post-disaster recovery as an integral part of development and sectoral planning for climate change adaptation;

32. To urge the secretariats of the Rio conventions to ensure that synergies between climate change and efforts to combat land degradation, desertification and biodiversity loss are optimized to take advantage of gains made through these actions, particularly in Africa;

33. To call upon sub regional, regional and international organizations to develop methodologies for measuring carbon sequestration in agriculture, forestry and agroforestry systems and accounting methods to be applied for claiming genuine benefits;

34. To commit ourselves to creating a comprehensive framework of African climate change programmes, bringing together existing and new intergovernmental initiatives and programmes in a consolidated manner, to meet the pressing challenges of climate change;

35. To reiterate the need to create an African climate change fund and to invite the African Union Commission, in cooperation with the Economic Commission for Africa and the African Development Bank, to take appropriate measures, including inviting developed country parties to commit themselves to supporting the fund;

36. To call for the involvement of women, young people and persons with disabilities, in addition to the private sector and civil society organizations in climate strategies at all levels, particularly in the areas of education, awareness-raising and capacity-building, to ensure an effective African response to climate change;

37. To mandate the President of the African Ministerial Conference on the Environment to submit Africa's common negotiating position on a comprehensive international climate change regime beyond 2012 in addition to the conceptual framework of African climate change programmes through the appropriate channels for consideration and adoption by African heads of State at their summit to be held in July 2009;

38. To invite the Commission of the African Union, the secretariat of the New Partnership for Africa's Development, the United Nations Environment Programme, the United Nations Economic Commission for Africa, the African Development Bank and other partners to pursue their cooperation to give effective support to all Member States and regional economic communities in the implementation of measures to combat climate change;

39. To reiterate our support for the offer by South Africa to host the seventeenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change and the seventh session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol, in 2011;

40. To express our appreciation to the Executive Director of the United Nations Environment Programme for his continued support for the African Ministerial Conference on the Environment;

41. Also to express our appreciation to the people and Government of Kenya for hosting the special session on climate change of the African Ministerial Conference on the Environment.

APPENDIX 10 COP15 PARTICIPATION STATISTICS

This table is the accumulative Provisional list of Participants provided by the UNFCCC Secretariat to the researcher for the main study. The list gives the numbers of the various participants that attended the fiftieth session of the Conference of the Parties and the fifth Session of the Conference of the Parties serving as the meeting of the to the Kyoto Protocol on Monday 7th December 2009.

Parties	**States /Organisations**	**Registered Participants**
Parties	191	8041
Observer States	3	12
Total Parties /Observer States	**194**	**8053**
Entities having received a standing invitation to participate as observers in the sessions and the work of the General Assembly and maintaining permanent observer missions at Headquarters	1	11
United Nations Secretariat units and bodies	33	451
Specialized agencies and related Organisations	18	298
Intergovernmental Organisations	53	699
Non-governmental Organisations	832	20611
Total Observer Organisations	**937**	**22070**
Total Participation		**30123**

Total Registered Media	**1069**	**2941**

Source: UNFCCC List of Participants, FCCC/CP/2009/INF.1(Part 1)

APPENDIX 11 REVISED LIST OF COP15 PARTICIPATION STATISTICS

This table is the revised accumulative list of Participants attending the fiftieth session of the Conference of the Parties and the fifth Session of the Conference of the Parties serving as the meeting of the to the Kyoto Protocol, as well as the thirty-first sessions of the subsidiary bodies, based on the information received by the UNFCCC Secretariat on the16th March 2010.

Parties	**States /Organisations**	**Registered Participants**
Parties	194	10583
Observer States	2	8
Total Parties /Observer States	**196**	**10951**
Entities having received a standing invitation to participate as observers in the sessions and the work of the General Assembly and maintaining permanent observer missions at Headquarters	1	7
United Nations Secretariat units and bodies	34	530
Specialized agencies and related Organisations	19	336
Intergovernmental Organisations	53	568
Non-governmental Organisations	794	12048
Total Observer Organisations	**900**	**13482**
Total Participation		**24073**

Total Registered Media	**1287**	**3221**

Source: UNFCCC List of Participants, FCCC/CP/2009/INF.1(Part 1)

APPENDIX 12 LIST OF AFRICAN LEADER INTERVIEW PARTICIPANTS

African Countries / Member States	Name of Leader of the Delegation	Tiltle of the Leader of the Delegation	Interview held	
			Yes	No
Algeria	S.E. M. Abdelaziz Bouteflika	President		☹
Angola	H. E. Ms Maria Monterio	Minister of Environment	✓	
Barkino Faso	S. M. E. Blaise Compaore	President		☹
Benin	S.E. M. Justin Sossou Adamayi	Minister of Environment		☹
Botswana	H. E. Mr Onkokame Mokalia	Minister of Environment, Wildflife and Tourism		☹
Burundi	M. Deogratias Nduwimana	Minister of Environment		☹
Cape Verde	H.E. Mr Jose Maria Veiga	Minister of Environment		☹
Central African Republ	S.E. M. Francois Naoueyam	Minister of Environment		☹
Chad	M. Abdel-Aziz Awam Tahir	Secretary General - Ministry of Water	✓	
Comoros	Md Koulthoum Djamadar	Special Adviser to the Minister	✓	
Congo	H.E. Mr Dennis Sassou-Nguesso	President		☹
Cote d'Ivoire	H.E. Aka Daniel Ahizi	Minister		☹
Djibouti	S.E. M. Dileita Mohammed Dileita	Prime Minister		☹
Egypt	H. E. Mr George Elias Ghattas	Minister of Environemental Affairs		☹
Equatorial Guinea	Sr Deogracias Ikaka Nzamio	Focal Point Representative	✓	
Eritrea	H. E. Mr Tesfai G. Selassie	Minister of Land, Water and Environment		☹
Ethiopia	Mr Tewolde Birhan Egziaber	Director General Environment Protection Agency		☹
Gabon	H. E. Mr Ali Bongo Ondimba	President	✓	
Gambia	Ms Fatou Ndeye Gaye	Senior Climate Change Offcier	✓	
Ghana	H. E. Mr John Mahama	Vice President	✓	
Guinea	S. E. M. Elhadj Papa Kourouma	Miinister	✓	
Guinea-Bissau	S. E. Mme Maria Nandigna	Vice President		☹
Kenya	H. E. Mr Mwai E. Kibaki	President		☹
Lesotho	H. E. Mr Pakalitha Mosisili	Prime Minister		☹
Liberia	Mr E. C. B. Jones Jr	Deputy Minister for Operations	✓	
Libya	Mr Mahmoud S. Elfallah	Secretary the Environment General Authority	✓	
Madagascar	S. M. Andry Nirina Rajoelina	President		☹
Malawi	H. E. Mr Grain W. P. Malunga	MP and Minister of Natural Resources, Energy and Environent	✓	
Mali	S.E.M. Amadu			
Mauritania	S.E. M. Mohammed Abdel Aziz	President		☹
Mauritius	S. E. M Navinchandra Ramgoolam	Prime Minister		☹
Morocco	S. E. Mme Amina Benkhadra	Minister of Energy	✓	
Mozambique	H.E. Alcinda Antonio de Abreu	Minister for Coordination of Environmental Affairs	✓	
Namibia	H. E. Mr Nahas Angula	Prime Minister		☹
Niger	Mr Baco Issof	Minister	✓	
Nigeria	Mr John Odey	Minister for Environment	✓	
Republic of Congo	H. E. Mr Denis Sassou-Nguesso	President		☹
Rwanda	H. E. Mr Stanislas Kamanzi	Minister of Natural Resources	✓	
Sao Tome - Principe	Mr Arlindo de Ceita Carvalho	General Director Environment Ministry	✓	
Senegal	S.E. M. Djibo Leity KA	Minster of Environment		☹
Sierra Leone	Mr Slyvester Earl Osmond Hancils	Deputy Minister of Transport and Aviation	✓	
Somalia				
South Africa*	Ms Rejoice T. Mabudafhasi	Deputy Minister of Environment	✓	
Sudan	Mr Mamoon A. Ahmed	Director, Department of Environment	✓	
Swailand	H. E. Mr Macford W. Sibandze	Minister, Tourism and Environmental Affairs		☹
Tanzania				☹
Togo	S. E. M. Kossivi Ayikoe	Minister for Environment and Forestry		☹
Tunisia	Mr Imed Fadhel	Deputy Director	✓	
Uganda	H. E. Ms Maria Mutagamba	Minister of Water and Environment	✓	
Western Sahara				
Zambia	H. E. Catherine Namugala	Minister of Tourism, Environement and Natural Resources	✓	
Zimbabwe	H. E. Mr Robert Gabriel Mugabe	President		☹

Source: Compiled by the Researcher

APPENDIX 13 LIST OF FOCUS GROUP PARTICIPANTS

Focus Group 1		
African Country	**Name of Leader**	**Role / Title of Participant**
South Africa	Ms Rejoice T. Mubudafhasi	Deputy Minister, Ministry of Environmental Affairs and Tourism
Comoros	Ms Koulthoum Djamadar	Special Adviser to the Minister /d'CCNUCC Focal Point
Gabon	M. Etienne Massard Makaga	Point Focal d'CCNUCC
Morocco	S.E. Mme Amina Benkhadra	Minister, Ministere des energies, des mines et de l'environment
Djibouti	S. E. M. Elmi Obsieh Waiss	Ministre de l'habitat, de l'urbanisme, de l'environment et de l'amagement du territoire
Guinea	Mr Dan Kourouma	Conseiller Principal du Ministre, Ministere de l'environment et du developpent durable
		Total Participants = 6

Focus Group 2		
African Country	**Name of Leader**	**Role/ Title of Participant**
Algeria	S.E. M. Cherif Rahmani	Minister de l' amenagement du torritoire de l'environment et du tourisme
Uganda	H. E. Ms Jesca Eriyo	Minister of State for Environment
Nigeria	Mr Ositadinma Anaedu	Minister, Permanent Mission of the Republic of Nigeria to the United Nations,Geneva
Namibia	H.E. Mr Netumbo Nandi-Ndaitwah	Minister, Ministry of Environment and Tourism
		Total Participants = 4

Source: Compiled by the Researcher

Focus Group 3		
Member State	**Name of Leader**	**Role/ Title of Participant**
Botswana	H.E. Bernadette Rathedi	Ambassador, Diplomatic Mission of Botswana to Denmark
Kenya	H.E. John Njoroge Michuki	Minister, Minister of Environment and Mineral Resources
Cameroon	Mr Joseph Amougou	Point Focal CCNUCC
Egypt	Mr El-Sayed Mansour Nasr	Head Climate Change Unit, Egyptian Environmental Affairs Agency
Mauritania		
Angola	Mr Arsenio Vitorina Machado	Director to the Interchange Cabinet of the Environment Ministry
Central African Republic	Ms Jacqueline Madozein	Director du Cabinet, Ministere de l'environment et de ecologie
Burkina Faso	S.E.M. Salifou Sawadogo	Minister, Ministere de l'environment et du cadre de vie
		Total Participants = 8

Focus Group 4		
Member State	**Name of Leader**	**Role/ Title of Participant**
Ethiopia	Mr Fanta Dessalegne Mesfin	Deputy Director General Environmental Proctection Agency
Sudan	H.E. Ms Amira Daoud Hassan Gornass	Ambassador, Environment Department, Ministry of Foreign Affairs
Niger	Mr Mahaman Ousmane	Directeur de Cabinet du Premier Ministre/President du CNEDD
Zimbabwe	Ms Ferida Nhekairo	Permanent Secretary, Ministry of Environment and Natural Resources Management
Senegal	Ms Souty Toure	Vice President du SENAT, Ministre de l'environment et de la protection de la nature.
		Total Participants = 5

Source: Compiled by the Researcher

Focus Group 5		
African Country	**Name of Leader**	**Role/ Title of Participant**
Rwanda	Ms Rose Mukankomeje	Director General, Rwanda Environment Management Authority
Eritrea	Mr Seid Abdu Salih	National Climate Change Coordinator
Libyan Arab Jamahiriya	Mr Abdelfatah Hadi Shibani	Consultant, National Climate Change and Ozone Layer Protection Committee, The general Environment Authority
Cote d'Ivoire	M. Abe Delfin Ochou	Director General de l'environment, Ministere de l'environment, des eaux et forets
Togo	S. E. M. Kossivi Ayioke	Minister for Environment and Forestry
Zambia	Mr Kenneth Dalison Nkowani	Director Environment and Natural Resopurces Management Department, Ministry of Tourism, Environment and Natural Resources
		Total Participants = 6

Focus Group 6		
African Country	**Name of Leader**	**Role/ Title of Participant**
Burundi	Ms Burnadette Hakizimana	Directeur de l'environment et Point Focal adjoint, Ministere de l'eau , de l'environment
Chad	M. Moussa Tchitchaou	Directeur des Resources en au et de la Meteorologie/ Point Focal de la CCNUCC
Tunisia	Mr Ridha	Director, Ministere de l'environment et du developpment durable
Congo	Mr Alexis Minga	Directeur General de l'environment, Ministere du developpment durable, de l'economie forestiere et de l'environment
Ghana	Mr Edward Omane Boamah	Deputy Minister, Ministry of Environment, Science and Technology
Swaziland	H.E. Princess T. Dlamini	Minister, Ministry of Natural Resources, Energy and Environment
Gambia	Mr Pa. Ousman Jarju	Director and UNFCCC Focal Point, Department of Water Resources
Madagascar	Ms Chrisitine Ralalaharisoa	Directeur General de l'environment, Ministere de l'environment et des forets
Cape Verde	Mr. Moises Borges	General Director, Environment
		Total Participants = 9

Source: Compiled by the Researcher

APPENDIX 14 AFRICAN LEADERSSPEECHES DURING THE HIGH LEVEL SEGMENT

S/N	Country	Name	Role
1	**Algeria**	S.E. M. Abdelaziz Bouteflika	President de la republique
2	**Angola**	H. E. Ms. Maria de Fatima Monteiro	Minister of the Environment
3	**Benin**	S. E. Justin Sossou Adanmayi	Ministre de l'environment et da la protection de la nature
4	**Botswana**	H.E. Mr Onkokame Kitso Mokaila	Minister, Ministry of Environment, Wildlife and Tourism
5	**Burkina Faso**	S.E.M Blaise Compaore	President du Faso / President des ministres / Chef de IEtat
6	**Burundi**	M. Deogratias Nduwimana	Ministre, Ministere de l'eau, de l'environnement, l'amenagement du territoire et de l'urbanisme
7	**Cameroon**	S.E.M. Paul Biya	President
8	**Cape Verde**	H.E. Mr. Jose Maria Veiga	Minister, Ministry of Environment, Rural Development and Sea Resources.
9	**Central African Republic**	S.E.M. Francois Naoueyama	Ministre, Ministere de l'environnement et de l'ecologie
10	**Chad**	M. Abdel-Aziz Awam Tahir	Secretaire General Ministree de l'Eau
11	**Comoros**	Mme Koulthoum Djamadar	Point focal national de la CCNUCC / Special Adviser to the Minister for Rural Development, charge of Energy, Industry and Handicraft. Ministere de l'agriculture, de la peche, de l'environnement, de l'energie, de l'industrie et de l'artisanat.
12	**Congo**	H.E. Mr. Denis Sassou-Nguesso	President
13	**Cote d'Ivoire**	S.E.M. Aka Daniel Ahizi	Ministre, Ministere de l'envirronement et des eaux et forets
14	**Democratic Republic of the Congo**	S.E.M. Jose Endundo Bononge	Ministre, Ministere de l'environnement, conservation de la nature et tourisme.
15	**Djibouti**	S.E. M. Dileita Mohamed Dileita	Prime Minister.
16	**Egypt**	H.E. Mr. Maged George Elias Ghattas	Minister, Ministry of State For Environmental Affairs.
17	**Equatorial Guinea**	Sr. Deogracias Ikaka Nzamio	Punto Focal Nacional de Cambio Climatico, Ministerio de Pesca y Medio Ambiente
18	**Eritrea**	H.E. Mr. Tesfai G. Selassie Sebhatu	Minister, Ministry of Land, Water and Environment.
19	**Ethiopia**	Mr. Tewolde Birham Gebre Egziabher Yohannes	Director General, Environmental Protection Authority.
20	**Gabon**	H.E.Mr. Ali Bongo Ondimba	President
21	**Gambia**	Ms. Fatou Ndeye Gaye	Senior Climate Change Officer and Gender Focal Point, Department of State for Forestry and the Environment.
22	**Ghana**	H.E. Mr. John Dramani Mahama	Vice President

S/N	Country	Name	Role
23	**Guinea**	S.E.M. Elhadj Papa Koly Kourouma	Ministre, Ministere de l'environnement et du developpement durable.
24	**Guinea-Bissau**	S.E.Mme Maria Adiatu Djalo Nandigna	Ministre de la presidence du conseil des ministres, de la communication socilae et des affaires parlamantaires
25	**Kenya**	H.E. Mr. Mwai E. Kibaki	President
26	**Lesotho**	H.E. Mr. Pakalitha Bethuel Mosisili	Prime Minister.
27	**Liberia**	Mr. E.C.B. Jones, Jr	Deputy Minister for Operations, Ministry of Lands, Mines and Energy.
28	**Libyan Arab Jamahiriya**	Mr. Shokri M.E. Ghanem	Chairman, National Oil Corporation
29	**Madagascar**	S.E.M. Andry Nirina Rajoelina	President de la Haute Autorite de la transition de la Republique de Madagascar.
30	**Malawi**	H.E. Mr. Grain W.P. Malunga	Member of Parliament and Minister, Ministry of Natural Resources, Energy and Environment.
31	**Mali**	S.E.M. Amadou Tocumani Toure	President
32	**Mauritania**	S.E. M. Mohamed Ould Abdel Aziz	President
33	**Mauritius**	S.E. M. Navinchandra Ramgoolam	Prime Minister
34	**Morocco**	S.E.M. Abbas El Fassi	Premier Minister
35	**Mozambique**	H.E. Ms. Alcinda Antonio de Adreu	Minister, Ministry of Coordination of Environment Affairs
36	**Namibia**	H.E. Mr. Nahas Angula	Prime Minister.
37	**Niger**	Mr. Baco Issouf	Ministre, Ministere de l'environnement et la lute contre la desertification.
38	**Nigeria**	H.E. Mr. Goodluck Ebele Jonathan	Vice President, Office of the Vice President.
39	**Rwanda**	H.E. Mr. Stanislas Kamanzi	Minister, Ministry of Natural Resources
40	**Sao Tome and Principe**	Mr. Arlindo de Ceita Carvalho	General, Director of Environment Ministry of Natural Resources and Environment.
41	**Senegal**	S.E. M. Djibo Leity KA	Ministre d' Etat / Ministre de l'environnement, Ministere de l'environnement et de la protection de la nature, des basins de retention et lacs artificiels
42	**Seychelles**	H.E. Mr. James Alix Michel	President
43	**Sierra Leone**	Mr. Sylvester Earl Osmond Hancils	Deputy Minister, Ministry of Transport and Aviation
44	**South Africa**	H.E. Ms Maite Nkoana-Mashabane	Minister, Department of International Relations and Cooperation
45	**Sudan**	H.E. Mr. Ah Osman Mohammed Taha	
46	**Swaziland**	H.E. Mr. Macford W. Sibandze	Minister, Ministry of Tourism and Environmental Affairs
47	**Togo**	S.E. M. Kossivi Ayikoe	Ministre, Ministere de l'environnment et des ressources forestieres.
48	**Tunisia**	M. Imed Fadhel	Sous-directeur, Ministere de l'environnment et du devloppment durable.

S/N	Country	Name	Role
49	**Uganda**	Mr. Peter Kobel	Senior Energy Officer, Ministry of Energy and Mineral Development
50	**United Republic of Tanzania**	H.E. Mr. Ali Mohamed Shein	Vice President
51	**Zambia**	H.E. Ms. Catherine Namugala	Minister, Ministry of Tourism, Environment and Natural Resources.
52	**Zimbabwe**	H.E. Mr. Robert Gabriel Mugabe	President

Source: Compiled by the Researcher

APPENDIX 15 THE COPENHAGEN ACCORD

FCCC/CP/2009/11/Add.1

Decision 2/CP.15

Copenhagen Accord

The Conference of the Parties,

Takes note of the Copenhagen Accord of 18 December 2009.

The Copenhagen Accord

The Heads of State, Heads of Government, Ministers, and other heads of the followingdelegations present at the United Nations Climate Change Conference 2009 in Copenhagen:

Albania, Algeria, Armenia, Australia, Austria, Bahamas, Bangladesh, Belarus, Belgium, Benin, Bhutan ,Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Cambodia, Canada, Central African Republic, Chile, China, Colombia, Congo, Costa Rica, Côte d'Ivoire, Croatia, Cyprus, Czech Republic, Democratic Republic of the Congo, Denmark, Djibouti, Eritrea, Estonia, Ethiopia, European Union, Fiji, Finland, France, Gabon, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guyana, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kiribati, Lao People's Democratic Republic, Latvia, Lesotho, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mexico, Monaco, Mongolia, Montenegro, Morocco, Namibia, Nepal, Netherlands, New Zealand, Norway, Palau, Panama ,Papua New Guinea, Peru, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Rwanda, Samoa, San Marino, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Swaziland, Sweden, Switzerland, the former Yugoslav Republic of Macedonia Tonga, Trinidad and Tobago, Tunisia, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, Uruguay and Zambia,

In pursuit of the ultimate objective of the Convention as stated in its Article 2,

Being guided by the principles and provisions of the Convention,

Noting the results of work done by the two Ad hoc Working Groups,

Endorsing decision 1/CP.15 on the Ad hoc Working Group on Long-term Cooperative Action and decision 1/CMP.5 that requests the Ad hoc Working Group on Further Commitments of

Annex I

Parties under the Kyoto Protocol to continue its work,

'have agreed on this Copenhagen Accord which is operational immediately'.

1. We underline that climate change is one of the greatest challenges of our time. We emphasise our strong political will to urgently combat climate change in accordance with the principle of common but differentiated responsibilities and respective capabilities. To achieve the ultimate objective of the Convention to stabilize greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, we shall, recognizing the scientific view that the increase in global temperature should be below 2 degrees Celsius, on the basis of equity and in the context of sustainable development, enhance our long-term cooperative action to combat climate change. We recognise the critical impacts of climate change and the potential impacts of response measures on countries particularly vulnerable to its adverse effects and stress the need to establish a comprehensive adaptation programme including international support.

2. We agree that deep cuts in global emissions are required according to science, and as documented by the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity. We should cooperate in achieving the peaking of global and national emissions as soon as possible, recognizing that the time frame for peaking will be longer in developing countries and bearing in mind that social and economic development and poverty eradication are the first and overriding priorities of developing countries and that a low-emission development strategy is indispensable to sustainable development.

3. Adaptation to the adverse effects of climate change and the potential impacts of response measures is a challenge faced by all countries. Enhanced action and international cooperation on adaptation is urgently required to ensure the implementation of the Convention by enabling and supporting the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing countries, especially in those that are particularly vulnerable, especially least developed countries, small island developing States and Africa. We agree that developed countries shall provide adequate, predictable and sustainable financial resources, technology and capacity-building to support the implementation of adaptation action in developing countries.

4. Annex I Parties commit to implement individually or jointly the quantified economy wideemissions targets for 2020, to be submitted in the format given in Appendix I by Annex I Parties to the secretariat by 31 January 2010 for compilation in an INF document. Annex I Parties that are Party to the Kyoto Protocol will thereby further strengthen the emissions reductions initiated by the Kyoto Protocol. Delivery of reductions and financing by developed countries will be measured, reported and verified in accordance with existing and any further guidelines adopted by the Conference of the Parties, and will ensure that accounting of such targets and finance is rigorous, robust and transparent.

5. Non-Annex I Parties to the Convention will implement mitigation actions, including those to be submitted to the secretariat by non-Annex I Parties in the format given in Appendix II 31 January 2010, for compilation in an INF document, consistent with Article 4.1 and Article 4.7 and in the context of sustainable development. Least developed countries and Small Island developing States may undertake actions voluntarily and on the basis of support. Mitigation actions subsequently taken and envisaged by Non-Annex I Parties, including national inventory reports, shall be communicated through national communications consistent with Article 12.1(b) every two years on the basis of guidelines to be adopted by the Conference of the Parties. Those mitigation actions in national communications or otherwise communicated to the Secretariat will be added to the list in appendix II. Mitigation actions taken by Non-Annex I Parties will be subject to their domestic measurement, reporting and verification the result of which will be reported through their national communications every two years. Non-Annex I Parties will communicate information on the implementation of their actions through National Communications, with provisions for international consultations and analysis under clearly defined guidelines that will ensure that national sovereignty is respected. Nationally appropriate mitigation actions seeking international support will be recorded in a registry along with relevant technology, finance and capacity building support. Those actions supported will be added to the list in appendix II. These supported nationally appropriate mitigation actions will be subject to international measurement, reporting and verification in accordance with guidelines adopted by the Conference of the Parties.

6. We recognise the crucial role of reducing emission from deforestation and forest degradation and the need to enhance removals of greenhouse gas emission by forests and agree on the need to provide positive incentives to such actions through the immediate establishment of a mechanism including REDD-plus, to enable the mobilization of financial resources from developed countries.

7. We decide to pursue various approaches, including opportunities to use markets, to enhance the cost-effectiveness of, and to promote mitigation actions. Developing countries, especially those with low emitting economies should be provided incentives to continue to develop on a low emission pathway.

8. Scaled up, new and additional, predictable and adequate funding as well as improved access shall be provided to developing countries, in accordance with the relevant provisions of the Convention, to enable and support enhanced action on mitigation, including substantial finance to reduce emissions from deforestation and forest degradation (REDD-plus), adaptation, technology developmentand transfer and capacity-building, for enhanced implementation of the Convention. The collective commitment by developed countries is to provide new and additional resources, including forestry and investments through international institutions, approaching USD 30 billion for the period 2010–2012 with balanced allocation between adaptation and mitigation. Funding for adaptation will be prioritized for the most vulnerable developing countries, such as the least developed countries, Small Island developing States and Africa. In the context of meaningful mitigation actions and transparency on implementation, developed countries commit to a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries. This funding will come from a wide variety of, public and private, bilateral and multilateral, including alternative sources of finance. New multilateral funding for adaptation will be delivered through effective and efficient fund arrangements, with a governance structure providing for equal representation of developed and developing countries. A significant portion of such funding should flow through the Copenhagen Green Climate Fund.

9. To this end, a High Level Panel will be established under the guidance of and accountable to the Conference of the Parties to study the contribution of the potential sources of revenue, including alternative sources of finance, towards meeting this goal.

10. We decide that the Copenhagen Green Climate Fund shall be established as an operating entity of the financial mechanism of the Convention to support projects, programme, policies and other activities in developing countries related to mitigation including REDD-plus, adaptation, capacity building, technology development and transfer.

11. In order to enhance action on development and transfer of technology we decide to establish a Technology Mechanism to accelerate technology development and transfer in support of action on adaptation and mitigation that will be guided by a country-driven approach and be based on national circumstances and priorities.

12. We call for an assessment of the implementation of this Accord to be completed by 2015, including in light of the Convention’s ultimate objective. This would include consideration of strengthening the long-term goal referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius.

APPENDIX I

Quantified economy-wide emissions targets for 2020

Annex I Parties	***Quantified economy-wide emissions targets for 2020***	
	Emission Reductions in 2020	Base Year

APPENDIX II

Nationally appropriate mitigation actions of developing country Parties

Non-Annex I	***Actions***

9th plenary meeting
18–19 December 2009

Publicly Reported Proposals to UNFCCC's COP-15
as Interpreted by Sustainability Institute, April 1, 2010

Country/Region	Reduction in Emissions 2020	Reduction in Emissions 2050	Other Proposals
Argentina			*Zero deforestation by 2020*
Australia	5% below 2000 *25% below 2000*	60% below 2000	20% renewable energy by 2020
Belarus	*10% below 1990*		
Brazil	36.1% below BAU *38.9% below BAU*		Amazon deforestation rate 70% below 2009 levels by 2017 *Zero deforestation by 2020*
Canada	17% below 2005	60% below 2006 *70% below 2006*	
China	carbon intensity 45% below 2005		Increase forest coverage by 40 million hectares by 2020; increase proportion of non-fossil fuels to 15% by 2020 *Emissions Peak in 2030 and fall to 2005 levels by 2050*
Costa Rica			0 emissions by 2021
Croatia	5% below 1990		
EU-27	20% below 1990 *30% below 1990*	80% below 1990 *95% below 1990*	
Finland*		80% below 1990	
Germany*	40% below 1990		
Great Britain*	34% below 1990	80% below 1990	
Iceland	15% below 1990 *30% below 1990*	50% below 1990 *75% below 1990*	
India	carbon intensity 20% below 2005		Keep emissions per capita below those of developed countries *20% of electricity from renewable energy by 2020*
Indonesia	26% below BAU		*40% below 2005 by 2030; Change forest to net sink by 2030*
Israel	20% below BAU		
Japan	*25% below 1990*	*80% below 2005*	
Jordan			10% renewable energy by 2020
Kazakhstan	15% of 1992		
Liechtenstein	20% below 1990 *30% below 1990*		
Malaysia	carbon intensity 40% below 2005		
Maldives	carbon neutral		
Marshall Islands	*40% below 2009*		
Mexico	*30% below BAU*	*50% below 2002*	8% below 2009 by 2012
Moldova	25% below 1990		
Monaco	30% below 1990	carbon neutral	
Morocco			600% increase in wind power and 15% reduction in building, industry, and transport energy use by 2020
New Zealand	*20% below 1990*	50% below 1990	
Norway	30% below 1990 *40% below 1990*		*carbon neutral by 2030*
Papua New Guinea		*carbon neutral*	*50% below BAU by 2030*
Paraguay			*Zero deforestation by 2020*
Russia	15% below 1990 *25% below 1990*	50% below 1990	
Scotland*	42% below 1990	80% below 1990	
Singapore	*16% below BAU*		
South Africa	*34% below BAU*		Emissions peak in 2025, stabilize for 10 years and decline *42% below BAU by 2025*
South Korea	*30% below BAU*		
Switzerland	20% below 1990 *30% below 1990*		*carbon neutral by 2030*
Ukraine	*20% below 1990*	*50% below 1990*	
US	17% below 2005 *28% below 2005*	*75% below 2005*	

* Countries are part of EU-27

Black text indicates a confirmed proposal; *green italic* text indicates a potential proposal. Confirmed proposals include official gov't statements, adopted legislation, and UNFCC submissions. Potential proposals include conditional proposals, legislation under consideration, and unofficial government statements.

Climate Scoreboard ©Sustainability Institute April 1, 2010 www.ClimateScoreboard.org

Source: Collected by the Researcher at the end of COP15

APPENDIX 16 AFRICAN PARTIES PARTICIPATION STATISTICS

	African Country	No. of Participants at COP15
1	Algeria	27
2	Angola	34
3	Benin	20
4	Botswana	24
5	**B**urkina Faso	87
6	Burundi	10
7	Cameroon	20
8	Central African Republic	14
9	Chad	10
10	Comoros	04
11	Congo	12
12	Cotes d'lovire	31
13	Democratic Republic of the Congo	59
14	Djibouti	11
15	Egypt	35
16	Equatorial Guinea	03
17	Ethiopia	28
18	Gabon	07
19	Gambia	18
20	Ghana	43
21	Guinea-Bissau	14
22	Kenya	65
23	Lesotho	30
24	Liberia	30
25	Libyan Arab Jamahiriya	05
26	Madagascar	42
27	Malawi	49
28	Mali	82
29	Mauritania	38
30	Mauritius	04
31	Morocco	61
32	Mozambique	13
33	Namibia	43

Appendix 16 Continuation of African Parties Participation Statistics

	African Country	Number of Participants at COP15
34	Niger	23
35	Nigeria	79
36	Rwanda	11
37	Sao Tome and Principe	03
38	Senegal	68
39	Seychelles	09
40	Sierra Leone	07
41	South Africa	115
42	Sudan	36
43	Swaziland	26
44	Togo	16
45	Tunisia	04
46	Uganda	69
47	United Republic of Tanzania	54
48	Zambia	54
49	Cape Verde	07
50	Eritrea	08
51	Guinea	23
52	Zimbabwe	28

Source: Compiled by the Researcher

APPENDIX 17 EVIDENCE USING PHOTOGRAPHIC MATERIAL

FIGURE 23 APPENDIX P1 AL GORE DURING THE OPENING OF COP15

Source: COP15 website, 2009.

FIGURE 24 APPENDIX P2 INTENSE NEGOTIATIONS DURING THE FINAL HOURS

Source: Taken by the Researcher

FIGURE 25 APPENDIX P3 COP15 PLENARY – LEADERSHIP TEAM

Source: Taken by the Researcher

FIGURE 26 APPENDIX P4 RESEARCHER WITH MEMBERS OF THE AFRICAN GROUP

Source: Taken by a member of the African Group for the Researcher

FIGURE 27 APPENDIX P5 RESEARCHERTALKING WITH FOCUS GROUP MEMBERS

Source: Taken by a member of the African Group for the Researcher

FIGURE 28 APPENDIX P6 THE AUTHOR INTERVIEWED ON AFRICA'S POSITION

Source: Taken during the main study for the Researcher by a delegate member

FIGURE 29 APPENDIX P7 TV INTERVIEW GIVEN BY THE RESEARCHER ON AFRICA'S POSITION

Source: Taken for the Researcher by a delegate member

FIGURE 30 APPENDIX P8 THE RESEARCHER INTERVIEWED ON AFRICA'S POSITION

Source: Taken during the main study for the Researcher

FIGURE 31APPENDIX P9 RESEARCHER WITH AN AFRICAN LEADER AFTER AN INTERVIEW

Source: Taken during the main study for the Author by a delegate member

FIGURE 32 APPENDIX P10 RESEARCHERAT A MEETING OF AMCEN

Source: Taken by the Researcher during COP15

FIGURE 33APPENDIX P11 ATTENDANCE AT THE MEETING OF CAHOSCC

Source: Taken by the research during the Extra-ordinary meeting of CAHOSCC

FIGURE 34 APPENDIX P12 CONSULTATION BREAK DURING THE FINAL COP15PLENARY

Source: Taken by the Researcher during the fieldwork

FIGURE 35 APPENDX P13 RESEARCHER WITH THE MINISTER OF ENVIRONMENT, NIGERIA

Source: Taken during the fieldwork by a colleague

FIGURE 36 APPENDIX P14 A FOCUS GROUP SESSION

Source: Taken during the fieldwork for the Researcher

FIGURE 37 APPENDIX P15 AN AFRICAN GROUP PRESS CONFERENCE

Source: Taken during the fieldwork by the Author

FIGURE 38 APPENDIX P16 COP15 PLENARY 'TAKING NOTE OF THE COPENHAGEN ACCORD'

Source: Jun Golinski – UNFCCC Photographer, 2009

FIGURE 39 APPENDIX P17 DELEGATES DURING THE LAST COP15 PLENARY

Source: Taken by the Researcher during the main COP15 Planery session

FIGURE 40 APPENDIX P18 DISCONTENT OF THE AFRICAN GROUP DURING COP15

Source: Taken by the Researcher during the African Group walk out

FIGURE 41 APPENDIX P20 A MEMBER OF THE AFRICAN GROUP DURING THE WALKOUT

Source: Taken by the Researcher during the African Group walk out at COP15

FIGURE 42 THE BASIC COUNTRIES CONSULTING AT COP15

Source: Obtained by the author at COP15 Press Room during the field work

South African President Jacob Zuma, Chinese Primier Wen Jiabao, Indian Prime Minister Manmohan Singh and Brazilian President Luiz Inacio Lula da Silva in consultation at COP15.

FIGURE 43 THE RESEAERCHER ORGANISING DATA

Source: Taken by a participant for the Researcher at COP15

FIGURE 44 RESEARCHER WITH MEMBERS OF THE AFRICAN GROUP

Source: Taken by a participant for the Researcher during the pilot study