Towards an Implementation Pathway for the Africa Group under the Architecture of the Paris Agreement, UNFCCC

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FOREWORD

This Major Research Paper (MRP) identifies and discusses challenges and opportunities in the implementation of the Paris Agreement through the perspective of developing countries, with a focus on the Africa Group. Work began with an intent to explore the barriers to the implementation of Nationally Determined Contributions (NDC) under the Paris Agreement from the perspective of African countries with a strong focus on the role of transparency. This led to the formulation of the Plan of Study (POS). As this work took shape, it became clear that under the current architecture of the Paris Agreement, which incorporates provisions for both mitigation and adaptation, it leaves open questions on adaptation and how adaptation will be balanced with mitigation. Given the importance of adaptation to developing countries, and particularly the negotiating bloc of the Africa Group at the UNFCCC, the work evolved with a greater focus on understanding the concerns for adaptation in the NDC implementation. While this MRP has evolved since the POS, it remains within the contours of the implementation of the NDCs under the Paris Agreement's international climate governance architecture.

ABSTRACT

The Paris Agreement adopted in December 2015 is the result of several years of rigorous efforts and negotiations towards an ambitious and inclusive climate governance structure under the United Nations Framework Convention on Climate Change (UNFCCC). The entry into force of the Paris Agreement has presented a new beginning for climate governance, opening up a pathway for intensive work towards the implementation of Nationally Determined Contributions (NDCs). The structure of the Paris Agreement provides Parties some flexibility based on their national circumstances, to ensure that all Parties actively contribute to the climate effort. Along with provisions of flexibility, the Paris Agreement introduces reporting structures so that NDCs are to be scrutinized and justified in regular intervals through a process known as the *Global Stocktake*. The structure of the NDCs and architecture of the Paris Agreement places the effectiveness of climate policy in the hands of all Parties.

Of concern to developing countries and particularly the Africa Group, is how adaptation can be balanced with mitigation in the implementation of NDCs. Achieving such a balance is important for the Africa Group as adaptation is linked to national development priorities. This Major Research Paper (MRP) attempts to make progress on the work necessary to balance adaptation with mitigation in the implementation of NDCs. The MRP explores the Means of Implementation (MOI) under the architecture of the Paris Agreement with a strong focus on adaptation, through the perspective of the Africa Group and applies these findings to a case study on the Kingdom of Swaziland. The MRP explores the role of MOIs, including its opportunities and barriers in supporting a balance between adaptation and mitigation, in the hopes that developing countries will no longer have to prioritize adaptation over mitigation.

Following an in-depth exploration of the MOIs, the MRP explores the potential of adaptation reporting for alleviating some of the identified barriers and for progressing towards a balanced NDC implementation pathway. The MRP concludes by identifying the opportune moment for the Africa Group in leading Parties towards a more balanced NDC implementation pathway.

ACRONYMS

ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AGN	Africa Group of Negotiators
APA	Ad hoc Working Group on the Paris Agreement
CBDR-RC	Common but Differentiated Responsibilities and Respective Capabilities
CBIT	Capacity Building Initiative for Transparency
CFCs	Chlorofluorocarbons
COP	Conference of the Parties (to the UNFCCC)
CSO	Swaziland Central Statistics Office
CTCN	Climate Technology Centre and Network
ECA	Economic Commission of Africa
EIT	Economies in Transition
FCCC	Framework Convention on Climate Change
GGA	Global Goal for Adaptation
GHG	Greenhouse Gas Emissions
G 77	Group of 77
HIV/AIDS	Human Immunodeficiency Virus /Acquired Immune Deficiency Syndrome
INDC	Intended Nationally Determined Contribution
INC	Intergovernmental Negotiating Committee for the UNFCCC (1990- 1995)
IPCC	Intergovernmental Panel on Climate Change
IPR	Intellectual Property Rights
LDCs	Least Developed Countries
MET	Swaziland National Meteorological Authority
MOI	Means of Implementation
MRP	Major Research Paper
MTEA	Ministry of Tourism and Environmental Affairs
NAPA	National Adaptation Programme of Action
NCCC	National Climate Change Committee
NCCP	National Climate Change Policy
NDC	Nationally Determined Contribution
NDS	National Development Strategy
ODA	Overseas Development Assistance
OECD	Organization for Economic Co-operation and Development
PEPFAR	Presidents Emergency Plan for AIDS Relief
PCCB	Paris Committee on Capacity Building
SARUA	Southern African Regional Universities Association Swaziland
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SDG	Sustainable Development Goals
TB	Tuberculosis
TEC	Technology Executive Committee
TEP-A	Technical Examination Process On Adaptation
TNA	Technology Needs Assessment
TNC	Third National Communication to the UNFCCC
UNDAF	United Nations Development Assistance Framework
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
WMO	World Meteorological Organization
°C	Degrees Celsius

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INTRODUCTION

I now invite the COP to adopt the draft decision entitled "Paris Agreement" which features in the document. I'm looking at the hall, I can see the reaction is positive and I hear no objection. The Paris Agreement for the climate is accepted.
Statement by, H.E. Mr. Laurent Fabius, COP 21/CMP 11 President, Le Bourget, 12 December 2015.

The Paris Agreement adopted in December 2015 is the result of several years of rigorous efforts and negotiations towards an ambitious and inclusive climate governance structure. The adoption of the Paris Agreement has presented a new beginning for climate governance, opening up a pathway for intensive work towards the implementation of Nationally Determined Contributions (NDCs). NDCs are pledges put forth by individual countries based on their national development priorities and circumstances. NDCs indicate Parties' intended climate actions and contributions to the global climate effort. The structure of the Paris Agreement provides Parties some flexibility based on their national circumstances, to ensure that all Parties actively contribute to this effort. Along with flexibility, the Paris Agreement introduces reporting structures so that NDC pledges are to be justified in regular intervals through a process known as *Global Stocktakes*. The structure of the NDCs and architecture of the Paris Agreement places climate policy in the hands of all Parties.

With the first Global Stocktake due for 2018, the Ad Hoc Working Group on the Paris Agreement (APA) is actively working on developing the procedures and

modalities for the implementation of the Paris Agreement. One of the questions raised during this process is how to balance adaptation with mitigation. This question problematizes the place of adaptation and an appropriate pathway for its implementation in the NDCs. Clarity over an adaptation pathway is an important priority for developing countries, particularly the Africa Group. The questions that arise with implementing adaptation and mitigation are not new, and they have shaped the negotiations prior to COP21. However, the entry into force of the Paris Agreement has required that all Parties consider the questions on adaptation in a more concrete way, as they will shape the implementation of the Paris Agreement.

This Major Research Paper (MRP) is broadly concerned with the question of how to balance adaptation with mitigation in the NDC implementation. It engages this question within a governance framework tied to the architecture of the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC). One cannot provide a clear answer to this question unless there is an understanding of the concerns and priorities of Parties. This MRP thus looks at this question through the perspective of developing countries, specifically the Africa Group. The Africa Group identifies specific vulnerabilities to climate change and emphatically calls for adaptation support in the implementation of the NDCs as support for adaptation has historically lagged behind mitigation.

Although mitigation is important, the heart of this MRP consists of identifying the barriers faced by the Africa Group for NDC implementation with a special focus on adaptation. This is because an understanding of the barriers to NDC implementation is pivotal to develop a pathway for adaptation required by the Africa Group in order to move forward on a strong footing. This groundwork may provide a clear understanding of the terrains on which adaptation is working in and the aim is

that these findings may inform future work towards an adaptation pathway that is sensitive to the experiences and needs of the Africa Group.

In doing this work, I have engaged in a textual and interpretive analysis within the framework of the Paris Agreement. The MRP draws on: 1) recent interdisciplinary and policy literature following the Paris Agreement; 2) submissions and reporting documents such as National Communications submitted by Parties to the UNFCCC; 3) UNFCCC official documents and my experience as an observer and member of the Kingdom of Swaziland's Delegation to the UNFCCCs African Group of Negotiators.

This MRP consists of four chapters. Chapter 1 provides a historical account of international climate change governance to better understand the processes and outcomes that have shaped the architecture of the Paris Agreement. This chapter introduces the NDCs and elaborates on the relationship between NDCs and sustainable development.

Chapter 2 sheds light on the long-standing discussion over the balancing of adaptation with mitigation from the perspective of the Africa Group. This section sets the foundation to better understand why a clear roadmap for an adaptation pathway moving forward is important to developing countries. With a special consideration on the Africa Group, this chapter then identifies the means of implementation under the Paris Agreement to facilitate NDC implementation with a close look at climate finance, technology transfer, capacity building and the Enhanced Transparency Framework.

Chapter 3 conducts an examination of these NDC implementation barriers as they arise on the national level in the Sub-Saharan African Kingdom of Swaziland. This chapter identifies a lack of political buy in, access to technology, capacity building, and finance as core barriers to NDC implementation.

Chapter 4 reflects in light of what has been learned through chapters 2 and 3 on the question of balancing adaptation with mitigation in the implementation of the NDCs. The discussion makes the case that while developing countries have apparent barriers that must be overcome for the implementation of their NDCs, overcoming these barriers must be a priority. In doing so, there is an opportunity presented to Parties by engaging proactively in the adaptation communications for empowerment and for making progress towards sustainable development.

CHAPTER 1 Preliminaries: The Institutional Context

The United Nations Framework Convention on Climate Change (UNFCCC) has been recognized for its role in restoring confidence in the climate change governance regime by establishing long-term governance architecture. The chapter begins with a general overview on the historical trajectory of the climate change governance structure from its inception to present. The chapter will then focus on the climate governance architecture from the Kyoto Protocol to the Paris Agreement highlighting the transition away from a binding, prescriptive and punitive regime to one that is more flexible and non- punitive. The chapter will introduce the Nationally Determined Contributions, which are at the center of this MRP and will make the link between the importance of NDCs and sustainable development.

I. International Climate Change Governance Regime

I. 1. General Overview

Roughly thirty years ago, the international community recognized the looming threat of climate change to the health and integrity of the environment and the livelihoods of people around the world. Uncertainty over the extent of the threat of climate change gained widespread support for the creation of a regime under which climate change would be governed. The United Nations Framework Convention on Climate Change (UNFCCC), hereby 'Convention' was created with this mandate. Since its entry into force in 1994, the UNFCCC has evolved significantly. At its inception, the UNFCCC governance structure was relatively vague, and did not require Parties to commit to

any specific quantifiable emission targets. Instead, the Convention identified basic principles and objectives to stabilize greenhouse gas (GHG) emissions in order to prevent dangerous anthropogenic interference with the climate system. Little direction was provided by the Convention on how its objectives would be achieved or measured. Over time, formal negotiations created the various bodies of the Convention along with subsequent mandates. As a result, the Convention is now supported by mandated institutions that have made the operationalization of the UNFCCC more efficient.

By 2005, the architecture of international climate change governance had evolved significantly since its inception through to the entry into force of the UNFCCC Kyoto Protocol. The Kyoto Protocol (UNFCCC, 1997, FCCC/CP/1997), which primarily aimed to tackle GHG emissions, instilled a structure of static differentiation between Parties. This model of differentiation held developed countries accountable for stringent quantifiable GHG emission reduction targets.

Over time, it became increasingly clear that this bifurcated model of responsibility for climate action would be difficult to be maintained for a range of reasons. The twists and turns of political dynamics in the multilateral negotiations compounded by the changing emissions trends had an impact on the dynamics of international cooperation. The varying responses to the structure of the Kyoto Protocol amongst developed countries signaled that developed countries did not carry a homogenous stance on all agenda items. This is evident as some developed countries including Parties of the European Union were in support of the Kyoto Protocol and its structure, while others such as the United States did not support the ratification of the Kyoto Protocol (Barnsley, 2006). As countries including Canada subsequently withdrew from the Kyoto Protocol and later, Japan and Russia joined

Canada in affirming that they would not commit to the Protocol's second commitment period, it was clear that a new climate governance structure would need to be considered.

At the same time, it was becoming increasingly clear that similar to developed countries, developing countries were also not a homogenous bloc. Developing countries vary vastly in their levels of development and thus emission patterns. Some of the major developing countries were reaching the GHG emissions trends of developed countries, and yet were not listed under Annex I countries. This growing reality of developed countries becoming major emitters without having a burden of responsibility for GHG reductions, amplified by the tangles of international politics under the UNFCCC challenged international cooperation under the architecture of the Kyoto Protocol.

Resultant of a multiplicity of reasons ranging from political issues to those over international cooperation, it was evident that if the climate effort was to move forward, the Kyoto model would have to transition towards a more inclusive and malleable governance model. Moving forward, subsequent negotiations under the UNFCCC process transitioned away from the architecture of the Kyoto Protocol and began to make progress towards a more inclusive and flexible, yet procedurally robust structure that would encourage Parties to collectively contribute to the climate effort.

With this difficult task, Parties and stakeholders of the Convention engaged in years of intensive negotiations, up until the 21st Conference of the Parties (COP21), where on December 12th, 2015 the COP adopted the Paris Agreement (UNFCCC, 2015b, FCCC/CP/2015/10/Add.1). The Paris Agreement sets a long-term architecture for the global climate effort and facilitates a flexible governance structure through a system of Nationally Determined Contributions (NDCs). The NDCs, which are Party

driven, hold great potential for the involvement of all Parties in the global climate effort. In what follows, I provide a historical overview to understand the stages that led up to the Paris Agreement.

I. 2. United Nations Framework Convention on Climate Change

The call for a single, intergovernmental institution to govern climate change, which became the role of the UNFCCC, came into fruition as a result of various United Nations General Assembly (UNGA) Resolutions. The UNFCCC was created in response to the alarming scientific findings on climate change reported by the Intergovernmental Panel on Climate Change IPCC (IPCC, 1990). The IPCC, which was created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP), remains autonomous and is the primary scientific body that provides the most recent scientific information available to the UNFCCC.

The UNGA, through UNEP and the WMO mandated the IPCC to conduct a comprehensive review on the issue of climate change, and to report on recommendations and potential response strategies to deal with climate change (United Nations General Assembly, 1988, A/RES/43/53). In accordance with this mandate, the IPCC released its first scientific and peer reviewed Assessment Report (IPCC, 1990) which identified with *certainty* that "emissions resulting from human activities are substantially increasing the atmospheric concentrations of the greenhouse gases; carbon dioxide, methane, chlorofluorocarbons (CFCs) and nitrous oxide" (IPCC, 1990, p. xi). The report also noted that increases in GHG would further the greenhouse effect, enhancing the warming of the earth's surface.

In response to these findings, the UNGA recognized the importance of continuing scientific research to better understand the phenomenon of climate change and thus, mandated the creation of the Intergovernmental Negotiating Committee (INC). The INC began the negotiating process of the institution that later would become known as the United Nations Framework Convention on Climate Change (United Nations General Assembly, 1990, A/RES45/212). The then newly established INC documented its concerns over the deteriorating state of the environment at its second session (June, 1991).

> Deeply concerned by the continuing deterioration of the state of the environment and (…) trends that, if allowed to continue, could disrupt the global ecological balance, jeopardize the life-sustaining qualities of the Earth and lead to an ecological catastrophe, (…) decisive, urgent and global action is vital to protecting the ecological balance of the Earth (United Nations General Assembly, 1989, A/RES/44/228).

The concern of the INC over the integrity of the environment encouraged progress towards the creation of the UNFCCC and set the foundation for its adoption (A/AC.237/18 Part II, Add.1, 1992). In May 1992, the text of the United Nations Framework Convention on Climate Change was adopted with a main objective of;

> (…) 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. Such a level should be achieved within a time frame sufficient to allow

> ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner (United Nations, 1992, Article 2).

With the objective of addressing climate change and stabilizing atmospheric GHG emissions, the Convention has been considered a historical landmark in international environmental management (Mintzer, Leonard, and Chadwick, 2000).

I. 3. Bodies of the UNFCCC

The UNFCCC hosts various subsidiary bodies, each with specific mandates to tackle the formidable challenge of climate change. The Conference of the Parties (COP) is one of these bodies and is the primary decision making body of the Convention. The COP aims to ensure an effective implementation of the Convention (UN, 1992, Article 7). Since the first conference of the Parties (COP1) of 1995, the COP generally convenes on an annual basis where the year 2017 will mark the twenty third time the Conference of the Parties will convene.

Along with this primary decision-making body, the UNFCCC's Subsidiary Body for Scientific and Technological Advice (SBSTA), and the Subsidiary Body for Implementation (SBI) are the two permanent scientific bodies that inform the COP. The SBSTA provides the COP with information and advice on scientific and technological matters relating to the Convention (UN, 1992, Article 9). The SBI is intended to assist the COP and its bodies with issues relating to the implementation of the Convention (UN, 1992, Article 10). Together, these bodies work with the Secretariat whose function is to assist the COP with various forms of support, including the compilation of reports, making information accessible to all Parties and

stakeholders, and facilitating the coordination of relevant bodies as required by the COP (UN, 1992, Article 8).

While there has been appreciable progress achieved by the COP, its subsidiary bodies and the Secretariat, this progress has not come without challenges. In my view, one of the major political hindrances to the climate regime is the disproportionate allocation of responsibility for climate action between developed and developing countries; a determinant that has lingered since the inception of the Convention. This bifurcated model of responsibility to be explored in greater depth below has been a point of disagreement between Parties and has been a driving force behind the new architecture of climate governance as adopted in the Paris Agreement.

I. 4. Bifurcation of Parties under the Convention

Along with the objectives of the Convention, including that of stabilizing GHG concentrations, the Convention adopts Principles to guide its implementation. One of the more contentious Principles is noted in Article 3, the Principle of Common But Differentiated Responsibilities, and Respective Capabilities (CBDR-RC), which places a greater onus for climate action on industrialized countries. Specifically, the Convention notes that action should be taken to protect the climate system on "the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities" such that developed country Parties should take the lead in combating climate change (UN, 1992, Article 3(1)). In accordance with this static model of differentiation that continued through the Kyoto Protocol, Parties have been divided into three groups known as *Annexes*, namely; Annex I, Annex II and non-Annex I, reflecting the varying levels of commitment and capacity to take climate action.

Annex I comprises of members of the Organization for Economic Co-operation and Development (OECD) and countries with Economies in transition (EIT). This group is expected to take the lead in the global climate effort by "limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs" through the implementation of national climate change policies to facilitate mitigation (UN, 1992, Article 4 (2)(a)).

Annex II Parties include OECD member countries but not the EIT listed in Annex I. These Parties are required to provide "new and additional financial resources" to developing countries for adaptation and mitigation as well as technology transfer initiatives as agreed under the Convention (UN, 1992, Article 4 (3)).

Non-Annex I Parties consist primarily of developing countries vulnerable to the impacts of climate change. Amongst this group of Parties is the Least Developed Country Group (LDC) which is granted special consideration under the Convention based on a limited capacity to respond to climate change and adapt to its adverse effects (UN, 1992, Article 3).

Together, these Annexes include all 197 Parties (196 States and 1 regional economic integration organization) who are Party to the UNFCCC, and sheds light on the expectations from the Convention to Parties in their Annexes. While there are officially three Annex groups in the context of the climate negotiations, Parties are generally discussed as between Annex I (developed countries) and non-Annex I (developing countries).

The Annexes are largely divided over their views on CBDR-RC. On the one hand, non-Annex I Parties believe that the Principle of CBDR-RC should be maintained in the climate discussions and decisions as it appropriately allocates responsibility to states according to their historical GHG contributions (Brunnée and

Streck, 2013). Some Annex I Parties on the other hand, recommend a shift away from CBDR-RC towards a model of responsibility for climate action that is inclusive of all member states (Bodansky and Diringer, 2014; Brunnée and Streck, 2013). In order to have a better understanding of the differing views on CBDR-RC, the next section will explore the structure of the bifurcated model that presided over the negotiations during the era of the Kyoto Protocol.

II. From the Kyoto Protocol to the Paris Agreement

II. 1. Structure of the Kyoto Protocol

The third Conference of the Parties (COP3) in 1997, adopted the Kyoto Protocol (UNFCCC, 1997) which entered into force in 2005. The Kyoto Protocol was a binding agreement that imposed GHG emission reductions on Annex I Parties based on the principle of CBDR-RC (UNFCCC, 1997, Article 3). Central to the Kyoto Protocol was the bifurcated model, differentiating GHG emission reduction commitments between Parties. The static differentiation of Parties under the Kyoto Protocol was a consequence of the wide disparity in capacity to engage in climate change adaptation and mitigation efforts (Savaresi, 2016). In attempt to balance climate efforts considering national capacities and CBDR-RC, the Kyoto Protocol allocated an unequal burden of responsibility for climate action to developed countries.

The bifurcated model of responsibility became particularly problematic as developed countries were under careful scrutiny from the international community to decrease GHG emissions, while developing countries continued to accumulate financial resources for carbon intensive industrialization. As carbon intensive growth

continued to dominate and the Kyoto Protocol garnered a decreasing amount of support from Annex I Parties, there was growing concern that mitigation efforts from developed countries alone would not be enough to prevent dangerous anthropogenic climate change (Savaresi, 2016).

At this point, it was clear that an updated and more inclusive architecture would be required for successful climate change governance. In the negotiations following the Kyoto Protocol, Parties engaged in discussions to find consensus on a way to encourage more Parties to join the global climate effort through GHG reductions (Savaresi, 2016). These negotiations were indeed difficult and suffered numerous setbacks, particularly at the height of disagreement at COP15 in Copenhagen where Parties were unable to reach consensus over the details of a governance architecture to replace the Kyoto Protocol.

While COP15 is often criticized, the outcome of the discussions provided direction towards the new governance structure (Bodansky, 2010). As COP 15 shed light on the red lines of Parties and set the tone from Parties on their expectations from one another, COP15 influenced the structure of the new climate agreement, which is more inclusive and flexible in nature. Eventually, subsequent negotiations that built on the Copenhagen Conference facilitated the creation of a more agreeable governance structure that is reflected in the Paris Agreement.

II.2. Structure of the Paris Agreement

The Paris Agreement, which succeeded the Kyoto Protocol, is the most recent milestone of international climate change governance. 195 Parties reached consensus on the Paris Agreement, which was formally adopted in UNFCCC COP decision 1/CP.21 on December 12, 2015 (UNFCCC, 2015b, FCCC/CP/2015/10, Add.1).

The Paris Agreement experienced an early entry into force on November 4 2016, as 55 countries, accounting for a minimum of 55% of global GHG emissions, submitted their instrument of ratification to the UNFCCC before the anticipated entry into force date of 2020 (UNFCCC, 2015b, Article 21). The early entry into force of the Paris Agreement signals widespread political will and support for collective climate action (Bodansky, 2016). The Paris Agreement embodies various unique features in its governance structure, which provides according to Bodansky, a firmer foundation on which to build than its predecessor, the more prescriptive Kyoto Protocol (Bodansky, 2016). There are four features of the Paris Agreement, which are particularly relevant to this investigation.

First, the Paris Agreement sets a global average temperature goal, which aims to encourage Parties to limit GHG emissions. The Paris Agreement strives to limit global temperature rise to "well below 2 °C above preindustrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above preindustrial levels" (UNFCCC, 2015b, Article 2(1)(a)). The Paris Agreement displays a transformation of international climate change governance where for the first time a UNFCCC architecture attempts to bridge the differing political interests and priorities that have stalled negotiations prior. The Paris Agreement facilitates this bridging process by promoting the participation of *all* Parties while tackling issues "balanc[ing] national flexibility and international discipline" (Bodansky and Diringer, 2014). In this new architecture, member states presented their climate commitments through Intended Nationally Determined Contributions (INDCs), now known as Nationally Determined Contributions (NDCs) since the ratification of the Paris Agreement. The level of ambition of each NDC is essential as it holds the potential to influence the stability of the climate system.

Second, unlike the Kyoto Protocol, the Paris Agreement is a global agreement, applying to Annex I and non-Annex I Parties, with special provisions for the Least Developed Country Group (LDC). This is important because for the first time, the climate regime insists on the collective action of all states, encouraging Parties with historically varying financial capacities and development priorities to engage in the global climate effort.

Third, although the Paris Agreement is recognized as a binding instrument, it contains many non-binding elements (Bodansky, 2016). Parties are held liable to, "prepare, communicate and maintain" (UNFCCC, 2015b, Article 4(2)) their NDCs so that subsequent pledges will be more ambitious than the previous. However, Parties are not obliged to fulfill the pledges of their NDCs. This is one of the greatest weaknesses of this long-term governance structure. The fulfillment of NDCs is critical to limit adverse climate change impacts.

Fourth, because of this non-binding element, the Paris Agreement involves an Enhanced Transparency Framework. The Enhanced Transparency Framework lends credence to the pivotal role of reporting. Reporting under the Enhanced Transparency Framework will document support provided and received by Parties and it intends to reflect the progress made by Parties towards their NDCs. While the Enhanced Transparency Framework will be essential to the overall success of the Paris Agreement, reporting will prove to be an obstacle faced by developing countries in the implementation of their NDCs as will be explored in chapter 2.

Nationally Determined Contributions

The Nationally Determined Contributions (NDCs), in accordance with Warsaw decision 1/CP.19 (paragraph 2 (b)) (UNFCCC, 2013, FCCC/CP/2013/10/Add.1) is the

approach taken under the Paris Agreement towards achieving the objective of the Convention; to stabilize greenhouse gases (UN, 1992, Article 2).

Prior to the convening of COP21, Parties submitted their INDCs to the UNFCCC Secretariat. Each INDC was meant to be in accordance with national circumstances, reflecting the highest possible level of ambition from individual Parties. Once each Party submits their formal instrument of ratification of the Paris Agreement, their INDC is converted to an NDC and uploaded by the Secretariat to the NDC Registry, accessible to all (see UNFCCC Newsroom, *NDC Registry*). Upon conversion, as per the provisions of the Agreement, progress made by member states towards their NDC is to be reported every five years to the UNFCCC Secretariat, through a Global Stocktake (UNFCCC, 2015b, Article 14). In this process, there is an expectation that Parties will 'ratchet-up' their ambition so that each stocktake will be more ambitious than the last (Morgan, Dagnet, Höhne, Oberthü and Li, 2014).

Bodansky and Diringer (2014) classify the new architecture of the Paris Agreement as a *hybrid model*, reflecting a combination of bottom-up features with some top-down procedures. Bottom-up in that NDCs have been submitted by nations in accordance with their individual priorities and capacities to meet the goals outlined in the Paris Agreement. And top-down, as was established in the Warsaw decision embedding a widespread reporting mechanism (UNFCCC, 2013, decision 14/CP.19).

NDCs and Sustainable Development

Under the Convention, Parties are encouraged to enhance their sustainable development Priorities. As each country is invited to submit their adaptation and mitigation climate actions through NDCs, Parties are given an opportunity for the first time to compose their commitments in line with their sustainable development

priorities and economic realities. In fulfilling country pledges that consist of both adaptation and mitigation priorities, it is especially important for developing countries to achieve a balance of support in the implementation of the NDCs between adaptation and mitigation. Essentially, the vision behind the NDC architecture is in line with the Convention's support for sustainable development, "Parties have a right to, and should, promote sustainable development" (UN, 1992, Article 3(4)).

The United Nations' *2030 Agenda for Sustainable Development* (UN, 2015, A/RES/70/1) strives to tackle the root causes of poverty, inequality, poor infrastructure, climate change, consumption patters and other factors known to hinder sustainable development. The interconnectedness of climate change and sustainable development is evident as developing country governments are increasingly diverting national finances initially budgeted for sustainable development to coping with the losses and damages associated with the impacts of climate change. Not only does this prevent countries from enhancing their adaptive capacities and resilience to climate change (Holdaway and Dodwell, 2015), but it also hinders progress made towards the Sustainable Development Goals (SDGs). Ladan (2016) describes the interconnectedness of climate change and sustainable development as "two mutually reinforcing sides of the same coin" (p.38). This is because sustainable development, particularly in developing countries cannot be achieved without ambitious climate action, and ambitious climate action cannot be achieved if development is not sustainable. There is extensive literature identifying the threat that climate change poses to sustainable development and poverty alleviation. While a full overview of this interconnectedness is not within the purview of this MRP, it is worth underlining the opportune moment presented by the Paris Agreement's NDC structure to incorporate sustainable development priorities to climate change action plans.

In conjunction with bridging sustainable development priorities and climate action plans, the NDC structure aims to put the world on track towards a low carbon, climate resilient development pathway (Holdaway and Dodwell, 2015).

On an aggregate level, the INDCs submitted by Parties in the lead up to COP21, showed that commitments were not sufficient to meet the temperature goal of the Paris Agreement (UNFCCC, 2015c, FCCC/CP/2015/7; Gütschow et al., 2015). Moreover, one third of all INDC submissions before COP21 included only conditional commitments; commitments that will only be fulfilled with specific access to support (Day, Röser, and Kurdziel, 2016). The Secretariat's Synthesis Report (UNFCCC, 2015c) shows that even if all contributions were to be implemented by Parties, including the conditional commitments, the world would be on track for a 2.7 °C warming by the year 2100. Although this is higher than the "well below 2 °C" temperature goal, the Synthesis Report emphasizes the importance of INDCs because without them, current emission trends would put the world on track for 3.6 °C warming by 2100 (UNFCCC, 2015c). Although current contributions are not ambitious enough to meet the temperature goal of the Paris Agreement, they have the potential to limit warming in comparison to warming anticipated under scenarios of business as usual. As a result, fulfilling country commitments as pledged in the NDCs is critical for preventing catastrophic climate change.

This brief historical overview has shown a shift in climate change governance, away from a strict burden allocation and towards a more durable and inclusive framework based on NDCs. The next chapter will focus on the main areas of concern in the process of building the modalities for the implementation of the Paris Agreement, with a focus on adaptation from the perspective of the Africa Group.

CHAPTER 2 The Importance and Challenges of Adaptation for Africa

As countries made most vulnerable to climate change continue to suffer a disproportionate burden of climate impacts, considerable climate efforts of developing countries have had to focus on adaptation in order to enhance the adaptive capacity of communities living on the front lines. The architecture of the Paris Agreement allows Parties to put forth their climate actions in a way that is responsive to their national capacities (Bodansky, 2016; Obergassel et al., 2016; Hermwille, Obergassel, Ott, & Beuermann, 2015; Bodansky & Diringer, 2014). As developing countries aim to ensure adequate adaptation provisions, tensions arise around managing adaptation and mitigation in the implementation of NDCs. Important to this chapter is that the historical prioritization of mitigation over adaptation under the UNFCCC has created a gap in available support for the adaptation needs of developing countries. This chapter notes this adaptation gap and recognizes that in attempting to balance adaptation with mitigation, developing countries will likely have to channel their limited resources towards adaptation. This chapter begins by outlining the adaptation versus mitigation positions, informing the rationale for each position. The chapter then explores the means of implementation (MOI) in the architecture of the Paris Agreement with a focus on climate finance, technology transfer, capacity building, and the Enhanced Transparency Framework through the lens of the Africa Group.

I. Understanding the Adaptation vs. Mitigation Positions

I. 1. Definitions of Adaptation and Mitigation

Adaptation

Adaptation in this investigation will be referred to in the context of its IPCC Third Assessment Report definition (IPCC, 2001). This definition below of adaptation reflects the pluralistic approach and multifaceted cluster of efforts encompassing adaptation.

> Adaptation refers to adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change (IPCC, 2001).

In line with this definition, adaptation efforts aim to ensure that any approved technologies or climate actions are appropriate for specific communities. Adaptation under the Paris Agreement considers the interconnectedness of climate change to human dimensions and ranges from actions of crop diversification to the implementation of early warning systems (Lesnikowski et al, 2016). If carefully designed with the appropriate capacity building support, adaptation efforts may strengthen national institutions to facilitate ownership over climate actions to potentially enhance country driven efforts.

Mitigation

Mitigation is defined as the human interventions made to reduce GHG emissions into the atmosphere or to enhance GHG sinks and reservoirs such as forests (IPCC, 2001). Mitigation initiatives, although they have always been important, are becoming increasingly necessary as climate change intensifies. On a large scale, mitigation actions might range from the re-designing of existing cities to reduce fossil fuel reliance, to transitioning to 100% renewable cities. On a smaller scale, mitigation includes improving dated, less efficient technologies, for example, transitioning from traditional cook stoves reliant on biomass towards clean cook stoves.

I. 2. Trajectory of the Adaptation Versus Mitigation Position

Over the history of international climate change governance, mitigation has been an overriding priority over adaptation. While some Parties have supported the historical prioritization of mitigation, others have been greatly dissatisfied. The opposing views on this issue have essentially created two positions of debate on the matter; one in support for the prioritization of adaptation, and another in support for mitigation. The purpose of this section is to provide insight to the opposing positions dividing Parties in the negotiations. I will give particular attention to Africa's position in the debate which will provide a foundation to understand the broad perspective of the negotiating bloc's request for a balance between adaptation and mitigation in the implementation of NDCs.

The prioritization of mitigation in the climate governance architecture dates back to the inception of the Convention and its objective.

> The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt 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. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner (UN, 1992, Article 2).

The Convention's objective begins by prioritizing mitigation, through its explicit attention to tackling GHG emissions. The objective then refers to adaptation but does so in a narrow context, noting only the role of adaptation for economic development and food security. Although both adaptation and mitigation are referenced in the Convention's objective, mitigation efforts have nevertheless presided over adaptation.

The historical prioritization of mitigation was in response to the scientific findings of the IPCCs First Assessment Report (IPCC, 1990) that identified that an increase in GHG would pose considerable threats to the stability of the environment. These findings were made prior to the realization that the impacts of climate change would require extensive adaptation efforts for community resilience and in some cases, survival. Given the limited understanding of climate change at the time, it is understandable that the international community through the UNFCCC dedicated its efforts on limiting climate change by focusing on GHG emissions reductions.

This prioritization of mitigation over adaptation as a means to control global temperature rise continued for many years. Mitigation was also the prioritized climate action at the heart of the architecture of the Kyoto Protocol, which enforced mandatory GHG emission reduction targets for Annex I Parties (UNFCCC, 1997). While Parties focused on tackling GHG emissions, it was becoming increasingly apparent that the already locked in GHGs emitted largely during the industrialization of the 'global north' were leading to environmental changes. These environmental changes appeared to be global, with increasing rainfall patterns in some areas, and drought in others, severely affecting the agriculture and livelihoods of many around the globe. In addition, increasing accounts of accelerated sea level rise and the intensification and frequency of extreme weather events were reported (IPCC, 2001; IPCC, 2014). As these impacts were disproportionately experienced by the 'global south', non-Annex I Parties had to engage in greater efforts to adapt to these impacts. It is no surprise that non-Annex I Parties began requesting a greater prioritization of adaptation in the climate governance structure in the hopes that adaptation support would receive the same provisions as mitigation.

The ongoing prioritization of mitigation over adaptation despite the increasing reports of climate change impacts and its detrimental effects began to divide Parties based on whether they supported the prioritization of adaptation or mitigation. On the one hand, developing countries have remained keen to prioritize adaptation, which is essential for enhancing their capacity to adapt and to become more resilient to the impacts of climate change. Thus, developing countries have worked to increase the status of adaptation in the negotiations. On the other hand, developed countries have supported the prioritization of mitigation. Some developed countries have traditionally resisted the prioritization of adaptation because of the great financial

costs associated with adaptation. These costs are of particular concern to developed countries that are obliged, under the Convention to provide financial support to developing countries for their adaptation needs.

The diverging views on this topic have lent themselves to the ongoing debate over the need for a greater balance between adaptation and mitigation. The difference of views on this issue will be explored below and will be referred to as the 'adaptation versus mitigation debate'.

Rationale for the Adaptation Position

The push for balancing adaptation with mitigation in the climate negotiations has taken precedence for many non-Annex I Parties. Parties in support of this view will inform the 'adaptation position' of this MRP. The adaptation position prioritizes adaptation as a key climate response in the global climate effort. The driving force behind the adaptation position recognizes that adaptation has lagged behind mitigation for many years in the climate negotiations. The adaptation position aims to enhance the prominence of adaptation in the negotiations by allocating it a special attention in the hopes that that adaptation will become on a par with mitigation. The adaptation position gained much consideration during COP16 as Parties established the Cancun Adaptation Framework (UNFCCC, 2010, FCCC/CP/2010/7, decision 1/CP.16/ paragraph 1 (b)). Parties aimed to decrease the vulnerability of developing countries to the impacts of climate change and agreed that, "adaptation must be addressed with the same priority as mitigation" (paragraph 2(b)).

In doing so, Parties advanced the details of the Adaptation Framework and its respective Adaptation Committee to ensure that an adequate institutional structure was in place to deal with adaptation. The Lima decision 1/CP20

(UNFCCC, 2014a, FCCC/CP/2014/10/Add.1) notes that, “Parties shall address in a balanced manner, inter alia, mitigation, adaptation, finance, technology development and transfer, and capacity-building, and transparency of action and support” (paragraph 2). The explicit mention of these components in the Lima decision attempted to place adaptation on par with mitigation ahead of Paris- at least in the textual sense. In addition, the Lima decision invites all Parties to consider including adaptation in their INDCs (decision 1/CP20, paragraph 12)

The invitation to include adaptation in the INDCs was a long time coming, and was well received by Parties; 137 of the 161 INDCs received before COP21 included a component dedicated to adaptation (UNFCCC, 2016, FCCC/CP/2016/2, paragraph 59). The opportunity presented by the UNFCCC for the inclusion of adaptation is reflective of the Convention’s dedication for an inclusive climate governance structure, shifting away from a mitigation dominated structure to one that purposefully considers adaptation. The widespread decision of individual Parties, particularly non-Annex I Parties to include adaptation in their INDCs is reflective of the need for greater adaptation support to assist Parties to pursue their national climate plans and sustainable development priorities.

While this opportunity was presented to Parties at COP20, the details of this invitation had not been fully developed. Although Parties were eager to include adaptation in their INDCs, there were fundamental questions left unanswered in the lead up to COP21. These included concerns over what an adaptation NDC component would comprise of, including the extent to which support for adaptation would be available under the Convention in comparison to support available for mitigation. These questions reflect the primary concerns of developing countries as to how adaptation will be balanced with mitigation in the implementation of NDCs. With

adaptation having gained an appreciable amount of attention in the lead up to COP21, non-Annex I Parties became particularly concerned to ensure that the new climate Agreement would secure special support for their adaptation needs, further solidifying non-Annex I Parties support for the adaptation position.

Rationale for the Mitigation Position

The position in support for the continued prioritization of mitigation over adaptation will be referred to in this investigation as the 'mitigation position'. The mitigation position is preeminent amongst Annex I Parties and favors approaches enabling the reduction of GHG emissions. This position is in sharp contrast to the adaptation position as it emphasizes the reduction of GHG above the need to adapt to the impacts of climate change.

The mitigation position gained special attention at COP 16 when a long-term global temperature goal was established to keep the rise of temperatures below 2 °C of pre-industrial levels (UNFCCC, 2010, decision 1/CP16). Parties agreed that to achieve the temperature goal, they would have to ensure emission reductions through the implementation of low carbon technologies, while enhancing GHG sinks and reservoirs (decision 1CP/16, paragraph 43). Although all Parties recognize the importance of mitigation initiatives for achieving this temperature goal, tensions rose over who should take responsibility for mitigation. This emphasized the two opposing positions in the adaptation versus mitigation debate. Annex I Parties wanted developing countries to join in the burden of mitigation, while non-Annex I Parties wanted to focus their national efforts on enhancing their adaptive capacities (Hermwille, Obergassel, Ott, and Beuermann, 2015).

The opposing positions in the debate became more visible at COP17 at the launch of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) (UNFCCC, 2011, FCCC/CP/2011/9/Add.1, decision 1/CP17). The ADP was mandated to negotiate a new climate agreement by 2015 in order to come into effect by 2020. The launch of the ADP presented a new hope for Annex I and non-Annex I Parties who each wanted to ascertain specific priorities in the new Agreement.

For Annex I Parties, the ideal climate governance architecture would ensure that climate mitigation under the new Agreement is applicable to all Parties. For non-Annex I Parties, the ideal new architecture under the ADP would prioritize adaptation so that adaptation could reach parity with mitigation.

Annex I Parties solidified their dedication to mitigation, while insisting that they should not have to continue to face the disproportionate burden of responsibility for climate action as they did under the Kyoto Protocol. As a result, Annex I Parties demanded a more inclusive burden sharing structure for climate action under the Paris Agreement. Non-Annex I Parties on the contrary, solidified their dedication to adaptation and did not agree to relinquish the differential burden allocation for climate action. Instead, developing countries wanted mitigation responsibilities to be in coherence with the Principles of the 1992 Convention of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC). The architecture of the Paris Agreement treads carefully on this terrain and finds common ground between the opposing positions in the adaptation versus mitigation debate. In response, the Paris Agreement invites all Parties to take mitigation action, as insisted by Annex I Parties and allows mitigation contributions to be nationally determined by Parties to not impose a burden on non-Annex I Parties.

I. 3. Position of the Africa Group

Countries of the African Continent have engaged in the UNFCCC since its inception. Together, the Continent unifies its voice through a negotiating bloc representing 54 African countries known interchangeably as the Africa Group of Negotiators (AGN) or Africa Group (see UNFCCC Newsroom, *Who's who: Groupings and actors*). The chair of the AGN rotates around African member States every two years. The AGN has presented the perspectives and experiences of African countries in a common position during the negotiations and has been an influential negotiating bloc over the years. Africa's position in the adaptation versus mitigation debate has historically sided with developing countries in support of the prioritization of adaptation due to the special circumstances faced by African countries.

The push for a Global Adaptation Goal

In pursuing parity between adaptation and mitigation, the AGN was the leading force behind the proposal for a Global Goal for Adaptation (GGA), first proposed under the ADP in 2013 (see submission by Swaziland on behalf of the AGN, October 2013). The AGN insisted on a GGA framework that would facilitate balancing adaptation with mitigation. The GGA was intended to conduct assessments on the adequacy of support received by developing countries based on their adaptation needs. A core component of this proposal was matching the support available (particularly financial) for adaptation with the global temperature goal. The AGN anticipates that the less ambitious the temperature goal, the greater the damage that climate change will have

on developing countries, which will result in a greater financial burden for adaptation implementation.

Eventually, the Paris Agreement established the Global Goal for Adaptation (UNFCCC, 2015b, Article 7). Parties at COP21 agreed that the purpose of the GGA is, "enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the global temperature goal" (UNFCCC, 2015b, Article 7(1)). In response to these efforts, there are varying views on the potentials of the GGA. On the one hand, Lesnikowski et al., (2016) believe that the Paris Agreement and its commitment to a GGA presents an opportunity for the integration of adaptation with mitigation as it encourages contributions to be made to the Adaptation Fund, which is the primary fund created to assist with adaptation initiatives. On the other hand, Sharma (2016) and Spash (2016) believe that adaptation under the Paris Agreement is only provisionary and that work needs to be done to develop a clear roadmap for a long-term adaptation implementation pathway. Despite these varying views, the GGA is a much-needed platform for the AGN as it presents a structure to support Parties to enhance their country driven adaptation initiatives for climate action while facilitating national sustainable development goals.

The architecture of the Paris Agreement establishes various support frameworks in order to operationalize the GGA. Specifically, decision 1/CP21 (UNFCCC, 2015b, paragraph 124) establishes the Technical Examination Process on Adaptation (TEP-A). The main purpose of the TEP-A is to enhance adaptation by "identify[ing] concrete opportunities for strengthening resilience, reducing vulnerabilities and increasing the understanding and implementation of adaptation

actions" (UNFCCC, 2015b, paragraph, 125). In order for the TEP-A to contribute to the GGA, Parties will need to ensure that they engage in adequate reporting on adaptation, which will be explored in section II.4 of this chapter.

Special circumstances of the African Continent

The fifth and most recent IPCC Assessment Report (IPCC, 2014) confirms what many African delegates had already suspected. Sub-Saharan Africa is one of the most vulnerable regions in the world to the impacts of climate change, despite the fact that the entire African Continent is responsible for only 4% of global GHG emissions (CAIT, 2016). Africa's vulnerability to the impacts of climate change is exacerbated by a plethora of factors. Two of the main factors are the erosion of sustainable development initiatives and the low adaptive capacity of the Continent.

First, the impacts of climate change are impeding many of the already existing sustainable development initiatives in African countries. Sustainable development initiatives focused on agriculture, clean drinking water, human health, and settlements, are amongst the most affected initiatives. The changing climate is intensifying rates of land degradation and drought as precipitation levels continue to decline across the sub-Saharan region, while other regions are anticipated to experience extreme rainfall (IPCC, 2014). This presents a huge challenge for freshwater lenses and agriculture that is vital for human sustenance.

One-third of the Continents GDP and 65% of Africa's labor force rely on the agricultural industry (New Partnership for Africa's Development, 2016). Thus, African economies and societies will be especially threatened by climate change. Precipitation and temperature fluctuations tend to increase the geographic range of vector-borne diseases, such as malaria and cholera that will impact human health

(IPCC, 2001). In addition, the rising temperatures exacerbate the intensity and frequency of extreme weather events and make more likely the risk of slow-onset events, including sea-level rise and desertification, which are anticipated to exacerbate climate induced displacement and threaten sustainable development (IPCC, 2014).

Second, the Continent faces a low adaptive capacity. This may be attributed to the various challenges to land, human health, and settlements as explored above. Additional warming on the Continent may permanently lock-in climatic impacts, which will be detrimental to African livelihoods. The Secretariat's Synthesis Report (UNFCCC, 2015c) suggests that a 3.4 °C - 3.7 °C warming would bring unprecedented climate variability to the African Continent. Specifically for Africa, a warming close to 4 °C could lead to an increase of temperatures of up to 6 °C. At this temperature point, it would be almost impossible for communities to adapt (African Development Bank, 2015). High poverty levels on the Continent have placed millions on the margins of survival, and for these communities, even the slightest change in climatic conditions may have a devastating effect (Ngwadla and El-Bakri, 2016).

These factors associated with a changing climate greatly undermine sustainable development efforts, making communities vulnerable and increasing the cost of adaptation. As a result, the AGN is concerned with the widening adaptation gap. This is the financial gap between funds currently available for adaptation efforts and the estimated costs of adaptation. In considering this adaptation gap and the special circumstances of the continent there is little surprise that securing support for adaptation until it becomes on par with mitigation is a priority for the Continent (see submission by the Republic of Mali on behalf of the AGN, February 2016a).

I. 4. Africa's Leadership in Adaptation and Mitigation

While adaptation has historically been an overriding priority for the Continent, the AGN has taken action to ensure that African countries are part of the solution. Demonstrating this commitment is that all African countries (with the exception of Libya) submitted an NDC to the UNFCCC, providing insight to the efforts of African countries to link their domestic climate actions to the international climate goals of the Paris Agreement.

Given the commitment of the AGN to the global climate effort, it is imperative to note that the commonly held belief that Africa's "primary stake in the climate negotiations is to secure more aid" is largely inaccurate and misleading (Africa Progress Panel, 2015, p. 135). Africa's commitment to the climate effort and the objective of the Convention was highlighted by the Executive Secretary of the Economic Commission for Africa, Dr. Carlos Lopes, during a side event. He stated, "Africans do not want to be passive actors in this debate, they do not want to be residual receivers of funds or aid for climate adaptation. Africans want to be part of the solution" (Africa Day at the African Pavilion, COP 21, International Institute for Sustainable Development Reporting Services, 1 December 2015).

The Africa Group's commitment to be part of the solution is evident in three notable climate action initiatives. The Africa Renewable Energy Initiative is one of such efforts and aims to unlock Africa's renewable energy potential by 2030 (see joint statement issued on behalf of the French Government, 8 December 2015). The Africa Adaptation Initiative is another example, and it intends to enhance support to Africa on issues of adaptation and loss and damage (Omari-Motsumi, 2016). Third is the Affirmative Finance Action for Women in Africa Initiative, launched by the African

Development Bank which aims to address the disproportionate financing gaps faced by women for climate change adaptation and mitigation efforts (African Development Bank, 2016).

This chapter has identified that developing countries have prioritized adaptation over mitigation in the negotiations in order to secure support to meet the immediate needs of their people. Thus far, this chapter has explored the contrasting sides of the adaptation versus mitigation debate outlining the unique circumstances of the Continent, and its particular need for adaptation support. In order to make progress towards the implementation of NDCs of developing countries, the means of implementation (MOI) and support available to Parties will be crucial. The remainder of this chapter will provide an overview of the MOI available to developing countries under the Convention and the Paris Agreement through the perspective of the Africa Group.

II. Means of Implementation

The extent to which Parties are able to exceed or merely achieve their adaptation and mitigation NDC plans will depend on their access to Means of Implementation (MOI) support. This includes financial, technological, and capacity building support in particular. Fortunately, there are existing support provisions and mechanisms established under the UNFCCC, however, in order for this support to be effective, the Parties will need to ensure that a careful balance between adaptation and mitigation is met so that Parties do not have to forgo one form of climate action for another. Developing countries have been emphatic that, “nothing under the UNFCCC can be

achieved without the provision of means of implementation to enable developing countries to play their part to address climate change" (see statement by South Africa on behalf of G 77 and China, 2 December 2015). This statement emphasizes the rhetoric of developing countries in attempt to secure support for their NDC implementation and particularly adaptation actions.

II. 1. Climate Change Finance

Definition

Climate change finance, hereby 'climate finance', does not have an agreed upon definition under the UNFCCC. In this MRP climate finance will be referred to as finance that is dedicated to actions to "reduce emissions, and enhance sinks of greenhouse gases and aim to reduce vulnerability of, and maintain and increase the resilience of, human and ecological systems to negative climate change impacts" (UNFCCC Standing Committee on Finance, 2014, p. 2)

Reliable and predictable climate finance is pivotal for adaptation initiatives and for enhancing the adaptive capacities of communities to reduce the disproportionate burden of climate change on vulnerable communities. Climate finance is also important for mitigation as it mobilizes the investments necessary to scale-up resources for a low carbon, resilient development pathway.

As discussed in the UNFCCC

The Copenhagen COP15 (UNFCCC, 2009, FCCC/CP/2009/11/Add.1) achieved notable progress for long-term climate finance as Annex I Parties committed to jointly mobilizing USD100 billion per year by 2020 (UNFCCC, 2009, decision 2/CP.15, paragraph 8). The Green Climate Fund, which is the main distributive fund for climate finance, demands that any finance provided through its institutional

arrangements must be directed towards low GHG emission initiatives (decision 2/CP.15, paragraph 10). This form of financial support dedicated to low carbon intensive growth is important to developing countries striving for a climate resilient development pathway.

Since COP15, developing country Parties have begun to gather climate finance. The Organization for Economic Co-operation and Development (OECD) released a report on the mobilization of climate finance, estimating that pledges to the Green Climate Fund from Annex I Parties has increased from USD 52 billion in 2013, to USD 62 billion in 2014 (OECD, 2015). Tensions rose in Paris, as often happens over climate finance, as developing countries felt that the OECD had exaggerated the progress made towards the $100 billion climate finance goal.

India in particular noted concerns over transparency and the methodology used in the OECD report. India's Economic Ministry released a follow up report noting that available climate finance for developing countries is in fact as low as USD 2.2 billion (India Climate Change Finance Unit, 2015). This aired tensions between Annex I and non-Annex I Parties over the availability of climate finance.

Disagreements over the finance mechanism under the UNFCCC continued at COP21 upon the release of a draft text by the co-Chairs. The draft text noted that developing countries with rapidly growing economies could be expected to join developed countries to contribute to climate finance (see draft agreement and draft decision on work streams 1 and 2 of the ADP 2.12, 4 December 2015). Not surprisingly, developing countries disapproved the call for Parties with emerging markets to be burdened by an expectation to contribute to climate finance. The G 77 & China Group responded to the draft text by reminding developed country Parties of

their financial obligations to developing countries under Article 3 of the Convention along with of the principle of CBDR-RC. The statement by the G 77 and China reads,

> Under the Convention, developed countries are obliged to provide financial resources, including technology transfer and capacity building to all developing countries. This is a legal obligation under the Convention. It is neither "aid" nor "charity", nor is it the same as development assistance (…) (see statement by South Africa on behalf of G 77 and China, 2 December 2015).

The intervention affirms the frustrations of developing countries insistent that Annex I Parties should take their obligatory financial commitments under the Convention seriously. The differing perspectives of Parties made it difficult to find common ground in the negotiations on finance, tasking this agenda item to the Ministerial level at COP21 where eventually common ground was reached, albeit a weak one. It was decided that while Annex I Parties *will* provide financial resources to assist developing countries, *all Parties* including non-Annex I Parties are encouraged to provide voluntary financial support to assist the implementation of NDCs (UNFCCC, 2015b, Article 9(1), 9(2)).

While the architecture of the Paris Agreement attempts to mobilize the climate finance mechanism, it does not provide precise information on what to expect from the mechanism. This has given developing countries little confidence in the availability and predictability of climate finance to support their climate actions. The uncertain availability of climate finance creates a barrier to the implementation of the NDCs, hindering developing countries from meeting their adaptation needs and

development priorities. This reality will be explored further in reference to a case study on the Kingdom of Swaziland in chapter 3.

Africa Group perspective

The uncertainty over the predictability of climate finance has put a spotlight on the adaptation versus mitigation debate, particularly as the African Continent faces a huge adaptation finance gap. The already limited funds available to the Africa Group for their climate efforts might oblige the AGN to continue to prioritize adaptation over mitigation in the NDC implementation in order to meet the immediate needs of its citizens.

Currently, the Continent has been receiving USD 0.5 billion – USD 3 billion per year which has been dedicated to adaptation initiatives. However, this falls short of the actual financial needs for adaptation on the Continent. The Report on Africa's Adaptation Gap (Schaeffer et al., 2013) reveals the adaptation costs to the Continent in three scenarios. The first scenario captures adaptation costs as a result of past emissions. These costs are anticipated between USD 7 billion – USD 15 billion annually by 2020. Second, the Report explores the financial needs of the Africa Group should the 2 °C temperature goal of the Paris Agreement be met. The report finds that a 2 °C temperature rise by 2050 would drive adaptation costs to approximately USD 35 billion per year. The third scenario is in line with pledges noted in INDC submissions before Paris which have estimated warming to be anywhere between 3.5 °C – 4 °C. In this scenario, assuming all Parties actually fulfill their INDCs, adaptation costs for Africa would range between USD 50 billion per year by 2050 and USD 350 billion by 2070 (Schaeffer et al., 2013). In all three of the

scenarios presented, the costs for adaptation on the Continent are alarmingly high and emphasize the large funding gap for adaptation.

The funding gap for adaptation is a common concern for negotiating blocs representing developing countries. As a result, in Paris the COP urged developed countries to prepare to scale-up their financial pledges by 2025 for a new quantified goal that would start from a floor of USD 100 billion (UNFCCC, 2015b, paragraph 53). Despite this textual development, little headway was made on the details of this additional finance, making it difficult for developing countries to consider fulfilling both adaptation and mitigation initiatives in tandem. In working towards an NDC implementation phase where adaptation is on par with mitigation, the details of climate finance and the adaptation finance gap must be addressed urgently.

II. 2. Technology Development and Transfer

Definition

In this MRP, technology development and transfer will be referred to in its IPCC definition, "a broad set of processes covering the flows of know-how, experience, and equipment for mitigating and adapting to climate change amongst different stakeholders" (IPCC, 2000, p.3). In working towards enhancing technology development and transfer for an enhanced access to environmentally sound technologies, the Marrakech Accords established a Technology Transfer Framework (UNFCCC, 2001, FCCC/CP/2001/13/Add.1, decision 4/CP.7).

The Technology Transfer Framework aims to enhance the implementation of the UNFCCC Convention (UN, 1992, Article 4(5)) to facilitate technology development and transfer to developing countries. The Technology Framework works

in collaboration with the Technology Mechanism (UNFCCC, 2010) to expand its outreach. The Technology Transfer Framework and Technology Mechanism are essential for overall technology development and transfer for ambitious climate action.

For adaptation, technology development and transfer can reduce vulnerability to climate change by increasing the adaptive capacity of communities. For mitigation, technology development and transfer will be crucial for achieving large and small-scale reductions in global GHG emissions.

As discussed at the UNFCCC

The Technology Mechanism established at COP 16 recognizes the crucial role of technology for realizing the objectives of the Convention (UNFCCC, 2010, decision 1/CP16, paragraph, 117). The Mechanism consists of the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN). The TEC was created under the Technology Mechanism as its 'policy arm' to identify appropriate policies to accelerate technology development and transfer for low carbon technologies (decision 1/CP16, paragraph 117(a)). The CTCN serves as the Mechanism's 'operational arm', which is informed by the TEC and is the implementation body of the Technology Mechanism. The CTCN aims to foster partnerships between stakeholders and promote innovation on matters related to technology development and transfer (paragraph 123(ii)).

Although not questioned for its significance, technology development and transfer has been out of the "limelight of negotiations" (Obergassel, 2016, p 31) in recent sessions. Perhaps this was due to progress being made by the respective

Subsidiary Bodies in association with the TEC and CTCN and Parties were anticipating advances on this agenda item to proceed in Paris.

In Paris, the Africa Group led a 'spin-off-group' for the launch of a Technology Framework to guide the Technology Mechanism, and these efforts were well received by Parties (see International Institute for Sustainable Development Reporting Services, *Paris Highlights*: Wednesday, 1 December, 2015, p.4). Article 10 of the Paris Agreement reflects this proposal and establishes a Technology Framework to provide overarching guidance to the Technology Mechanism. Specifically, it intends to promote "enhanced action on technology development and transfer" to support the implementation of the Agreement (UNFCCC, 2015b, Article 10 (4)). The specific details of the Technology Framework will continue to be developed in the upcoming negotiations. In the meantime however, the Subsidiary Body for Scientific and Technological Advice (SBSTA) has been requested to further elaborate on updating the Technology Needs Assessments (TNA) of developing country Parties and to scale-up appropriate technical and financial support. Information gathered by the TNA as will be explored in Chapter 3, is especially useful to understand Parties' specific needs and barriers to technology access.

As technology development and transfer continues to gain traction in the NDC implementation discussions, Glachant and Dechezleprêtre (2016) note the contrasting views of Parties regarding technology transfer. On the one hand, developed countries are concerned that ambitious technology transfer might reduce investments to their intellectual assets nationally, and on the other hand, developing countries increasingly request the assistance of developed countries to facilitate technology transfer. These varying outlooks of Parties have led to two main challenges faced by developing countries in technology development and transfer. These include access to technology

because of Intellectual Property Rights (IPR) and access to finance (see submission from Government of India to SBSTA, 14 September 2016, p.10). Although not explicitly mentioned in the text, the debate of whether to include the term 'IPR' in the Agreement presented a divide between parties on the issue. As a result, the barrier of IRP is insinuated in the text by the agreed term, "access". From the perspective of developing countries, technology 'access' under the Paris Agreement acknowledges that the existing technology framework encourages research and development, however, IPRs still hinder countries from benefiting from technology 'spill-overs' (see submission from Algeria on behalf of Like Minded Developing Countries, 17 October 2016). Glachant and Dechezleprêtre (2016) suggest that the reason that the exchange of IPR patents between developed and developing countries has remained at a low 16% is because of a lack of trust that patent owners in the 'global north' have for the enforcement of IPRs in developing countries, hindering the process of technology development and transfer.

A significant success for developing countries out of COP21 has been the progress made towards enhancing technology transfer through collaboration with the Financial Mechanism of the UNFCCC as per decision 13/CP21 (UNFCCC, 2015b). This collaboration aims to improve support to developing countries to fulfill their mitigation and adaptation actions (UNFCCC, 2015b, paragraph 10). The operationalization of the technology transfer mechanism is important for developing countries, and especially the Africa Group to work towards alleviating existing barriers to technology access for NDC implementation.

Africa Group perspective

While there seems to be much potential under the Technology Framework for

enhancing technology access, the specific details are still being negotiated, and this will be no small task. A concern of the Africa Group is that only some developing countries with emerging markets have benefited from technology transfer thus far. This is largely due to the involvement of emerging markets in the global economy, leaving out many of Africa's least developed countries from this process. Bridging this gap is going to be challenging as technology assistance is important for the NDC implementation of all developing countries. In addition to bridging this gap, the realities of IPR in the realm of technology transfer will continue to hinder the process.

One of the greatest concerns of the Africa Group of Negotiators (AGN) for the Technology framework is embedded in the adaptation versus mitigation debate. For many African countries, access to appropriate technology is directly related to the improved wellbeing of citizens. For example, as is noted in the NDCs of many African countries, technology transfer is important for improved water management, more climate resilient agriculture, and early warning systems (see submission from Algeria on behalf of Like Minded Developing Countries, 17 October 2016). If developing countries are unable to access sufficient technology and financial support to fulfill their NDCs, developing countries will have to prioritize the already limited support received towards the implementation of adaptation initiatives.

Although this perspective is understandable, a limited access to technology (and of course finance) presents a challenge for the future stability of the climate. A delay of mitigation action amongst emerging markets that have had to prioritize adaptation given their realities on the ground, poses a significant global concern as is emphasized in the Secretariat's Synthesis Report (UNFCCC, 2015c). The full NDC implementation of all Parties is essential for a minimum 2 °C temperature rise. Similarly, as is the case with climate finance, the Technology Framework and its

details must be carefully crafted in subsequent negotiations to ensure adequate support to assist Parties to fulfill their adaptation and mitigation contributions.

II. 3. Capacity Building

Definition

In this MRP, capacity building will be referred to in its IPCC definition, "developing the technical skills and institutional capabilities in developing countries and economies in transition to enable their participation in all aspects" of climate change action (IPCC, 2007, p. 871).

As discussed at the UNFCCC

While the details of capacity building are still being developed, the Paris Agreement aims to ensure that capacity building initiatives will enhance the capacities and abilities of countries made most vulnerable to climate change. The nature of capacity building is crosscutting, and the Paris Agreement puts its best foot forward to capture this multifaceted dimension.

Under the Paris Agreement, capacity building is in reference to enhancing climate change action through the implementation of "adaptation and mitigation actions, the facilitation of technology development, dissemination and deployment, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information" (UNFCCC, 2015b, Article 11(1)). With this intersectional focus, capacity building under the Paris Agreement provides a unique opportunity for the improved coordination across various mechanisms of the Convention.

The Paris Committee on Capacity building (PCCB) established in paragraph 71 of decision 1/CP.21 (UNFCCC, 2015b) attempts to meet the capacity building priorities of developing countries. Specifically, the PCCB will aim to assist in identifying the exact areas requiring capacity support for individual countries as per their NDCs. An anticipated challenge with capacity building is the provision of finance for its associated initiatives. Finance for capacity building was not settled as an obligation of Parties under the Paris Agreement. Instead, it is a recommendation by the COP (Article 11(3)).

Along with the PCCB, the Paris Agreement launched the Capacity Building Initiative for Transparency (CBIT) to support non-Annex I Parties to meet the requirements of the Enhanced Transparency Framework of Article 13 (UNFCCC, 2015b, paragraph 84). While support to the CBIT under the Paris Agreement is obligatory, the Agreement does not identify the details of support, nor from whom support will be received. Thus, similar to climate finance and the technology framework, as Parties continue to develop the capacity building framework, the details will determine the true potential of the framework for developing countries. The intersectional nature of capacity building carries great importance for assisting developing countries in the implementation of the NDCs. Despite this importance, capacity building, as will be further elaborated on in Chapter 3, will prove to be a considerable barrier to implementation of the NDCs for developing countries such as Swaziland.

Africa Group perspective

For the Africa Group, capacity building is about "acquiring skills, strengthening institutions, and strengthen legal and policy frameworks to facilitate effective

implementation of mitigation and adaptation activities" (see submission by Republic of Mali on behalf of the AGN, 15 September 2016b). An enhanced adaptive capacity of Parties through capacity building for adaptation in particular, may increase the mainstreaming of climate change into national development agendas, which may in turn, enhance the effectiveness of ongoing climate projects.

Although the MOIs explored thus far will assist with the implementation of NDCs, chapter 1 highlighted that the implementation of the NDCs alone will not be enough to limit warming to 2 °C and certainly not 1.5 °C (UNFCCC, 2015c). As a result, Parties will have to ratchet-up their NDC ambition in order to inch closer towards 2 °C. Accordingly, the Paris Agreement implements an Enhanced Transparency Framework and a Global Stocktake to ensure a scale-up of Party commitments and contributions over time.

II. 4. Enhanced Transparency Framework and Global Stocktake

Definition

The Enhanced Transparency Framework does not have an agreed upon definition under the UNFCCC. In this MRP, the Enhanced Transparency Framework is in reference to the range of provisions including the monitoring, reporting, and the verification of data submitted (UNFCCC, 2014b). The data submitted by Parties through the transparency framework will also inform the Global Stocktake which will 'take stock' of the progress made by Parties towards the Paris Agreement.

As discussed at the UNFCCC

The significance of transparency has been emphasized since the inception of the UNFCCC (UN, 1992, Article 12). Given the important role of transparency and its

support provisions to the global climate effort, it is no surprise that a provision for transparency was established early on in the negotiations. The Nairobi Work Programme of decision 2/CP11 (UNFCCC, 2005, FCCC/CP/2005/5/Add.1) established an Adaptation Knowledge Portal intended to serve as a hub to support adaptation actions. This knowledge platform includes support to developing countries on the reporting and evaluation of their adaptation actions. The Paris Agreement builds on the efforts of the Nairobi Work Programme to enhance adaptation reporting through its frameworks on transparency and capacity building. Reporting and transparency have increased in significance over the years to become the backbone of the Paris Agreement. The Enhanced Transparency Framework introduces a common system of reporting for transparency where all Parties must report their emissions and track progress made towards meeting their NDCs (UNFCCC, 2015b, Article 13(7)(a)). Through the common reporting structure, Parties will be able to access up-to date information and gauge their collective progress made towards the goals of the Agreement and the objectives of the Convention.

The structure of the Paris Agreement encourages Parties to produce and submit Adaptation Communications to the UNFCCC (Article 7(10) and 7(11)). The Agreement notes the information that Parties should include in their adaptation communications. Amongst this information includes the priorities and implementation needs of Parties. These communications, similar to National Communications, will be recorded in an accessible and public registry in order to allow for a review of the overall progress made by Parties towards the Global Goal on Adaptation during the Global Stocktake (Lyster, 2017).

The Global Stocktake as established in Article 14 of the Paris Agreement, schedules its first session in 2023, and subsequent sessions every five years thereafter.

While the details of the Global Stocktake continue to be developed, its purpose is to periodically take stock of the collective progress made towards the Paris Agreement in light of equity and the best available science (UNFCCC, 2015b, Article 14(1)). Access to this information, will provide insight to the specific barriers or concerns of Parties that may be hindering the implementation process of the NDCs. The Global Stocktake is to be comprehensive in nature, taking into account overall NDC progress. This process will be an integral component to understand the realities of Parties, and this will allow for the MOI structures to be better targeted to the specific support needs of Parties during the NDC implementation (Holz and Ngwadla, 2016).

The details of the Enhanced Transparency Framework and the Global Stocktake are still being developed and will likely continue until 2018, when the new transparency mechanism is to be negotiated. In the mean time however, the Enhanced Transparency Framework has been established with built-in flexibility, which takes into account the different capacities of Parties (UNFCCC, 2015b, Article 13(1)). Given the varying capacities and circumstances of Parties, flexibility on reporting is provided to the Least Developed Country group (LDCs). This is to ensure that the Enhanced Transparency Framework is implemented in a manner that is, "facilitative, non-intrusive, non-punitive, [and] respectful of national sovereignty" (Article 13(3)). Essentially, the Enhanced Transparency Framework intends to avoid placing an additional burden on LDCs. Despite this flexibility provision, data provided by all Parties is subject to a review and a process of multilateral scrutiny to ensure that the reporting of Parties is accurate and comparable.

Africa Group perspective

Reporting under the Enhanced Transparency Framework and the Global Stocktake presents various prospects for the Africa Group, in particular with regards to inclusivity and sovereignty. Although there are great potentials presented with a strong reporting mechanism, there are of course challenges faced by developing countries in adhering to the reporting requirements. Chapter 3 will provide a synopsis of these barriers as experienced by the Kingdom of Swaziland. Despite these challenges, reporting presents an important potential for the Africa Group.

As the architecture of the Paris Agreement is inclusive in nature, it requires all Parties to play their part, and for the first time, developing countries have agreed to participate in a review process of their reported data. While reporting will be important for adaptation and mitigation efforts, it presents an enhanced opportunity to further adaptation. The Enhanced Transparency Framework provides a platform for Parties to share and learn from the best practices and experiences of one another. In addition, clear reporting presents a greater chance for the matching of financial and technical support from Parties as countries are to present their needs and concerns in a public forum. This will allow the Africa Group to focus on securing support for their adaptation needs in particular. The Enhanced Transparency Framework also has potential to serve the international community in interpreting the commitments and pledges made by Parties into climate actions. The potentials presented by this framework to the Africa Group will be explored further in chapter 4.

This chapter has aimed to shed light on the general importance of adaptation from the perspective of the Africa Group. The chapter provides context to the crux of the positions around adaptation and mitigation in the implementation of NDCs, noting that a historical prioritization of mitigation has left developing countries to have to fill

existing adaptation gaps. In examining the MOIs under the architecture of the Paris Agreement, this chapter has revealed that the MOIs can assist in the process of balancing adaptation with mitigation by calling attention to the needs of developing countries. The next chapter will examine these issues from the lens of a member of the AGN, the Kingdom of Swaziland, where I will identify the constraints and needs for Swaziland's NDC implementation.

CHAPTER 3 Swaziland

This chapter will examine how the issues of NDC implementation raised in the previous chapter manifest on a national level through a case study on the Kingdom of Swaziland, a representative country of the Africa Group. I will explore the barriers faced by Swaziland in the NDC implementation with a special focus on understanding how these barriers present a challenge for adaptation. The chapter will begin by providing a political, socio-economic, and environmental context to the Kingdom of Swaziland. It will then explore Swaziland's Nationally Determined Contribution (NDC) outlining the Kingdom's adaptation and mitigation priorities. The chapter will explore the concerns and needs of the Kingdom for the NDC implementation, highlighting a lack of political buy-in, technology access, capacity building, and finance.

I. Country Context

The Kingdom of Swaziland is a small, landlocked country located in the southeastern part of the African Continent. Bordered by South Africa to the north, south and west and Mozambique to the east, the Kingdom covers 17,364 km^2 and is home to a population of 1, 056 000 (TNC, 2016[1]).

[1] Swaziland's Third National Communication (TNC) is produced by the Kingdom of Swaziland's Ministry of Tourism and Environmental Affairs (2016). (To be cited as TNC in this MRP)

I. 1. Political Context

As Africa's last remaining absolute monarchy, Swaziland has a unique governance structure consisting of both traditional institutions and 'modern', western methods of governance. Swaziland gained independence from Britain in 1968. The then King of Swaziland, King Sobhuza II, took to power after the country's first election in 1972, repealing the 1968 Constitution with the King's Proclamation of 1973. Under this proclamation, King Sobhuza II banned all political Parties and ruled the Kingdom assuming all powers. Swaziland adopted its second Constitution in 2005, which recognized the importance of development for national prosperity (Kingdom of Swaziland, 2005).

The Kingdom is currently under the rule of His Royal Majesty, King Mswati III who ascended to the throne in 1986. His Majesty's political authority expands all regions of the Kingdom and governs the 55 administrative divisions of the Kingdom known as Tinkhundla through elected traditional chiefs (Brown, 2011).

Swaziland's Governance structure has incorporated a modern political and administrative institution with a traditional structure. The modern, semi-democratic, western governance structure allows citizens to elect political candidates pre-approved by His Royal Majesty. The modern governance structure oversees the work of eight urban areas and their regional offices. The Tinkhundla system represents the traditional structure of the royal villages and chiefdoms embedded in Swazi culture and history. The Tinkhundla account for 55 Swazi districts and oversee community development in the rural areas (United Nations System Swaziland, 2010). Under the modern Parliament structure, there is a House of Assembly and House of Senate. The House of Assembly consists of 65 seats, 55 of which are held by the Tinkhundla chief representatives (Brown, 2011). The remaining 10 are for individuals directly

appointed by his Majesty. The House of Senate consists of 30 seats, 20 of which are seats appointed directly by His Majesty (Brown, 2011). Under the traditional Tinkhundla structure, His Majesty the King's title changes to *Ingwenyama* (which translates to lion) and Chiefs are considered 'local Kings' reporting to *Ingwenyama*. Chiefs under the Tinkhundla structure provide a link between community members and the modern style government. Chiefs also inform their communities of any local development plans that may affect them, and are responsible for maintaining the welfare of their communities in relation to land planning, health, food security, and rule of law (Economic Commission for Africa, 2007).

This dual governance structure which encompasses a modern and traditional court system operating independently of each other, has given way to Swaziland's unique political context that continue to govern the Kingdom. While this presents the Kingdom with various unique opportunities for governance, it has also been a source of difficulty for decision-making, policy creation, and implementation. These challenges will be explored in detail in section III.1 of this chapter.

I. 2. Socio-economic Context

As a developing country, Swaziland continues to make progress towards the Millennium Development Goals (Kingdom of Swaziland, Ministry of Economic Planning and Development, 2010). Swaziland faces considerable barriers to meeting their development priorities, let alone meeting His Majesty the King's Vision of becoming a first world country by 2022 (Kingdom of Swaziland, 2013). Swaziland's Annual Vulnerability Assessment Analysis Report (Kingdom of Swaziland, 2016) identifies that the Kingdom is particularly burdened by poor health due to high levels of the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency

Syndrome (AIDS), which has led to a low life expectancy and slow economic growth. Along with these socio-economic challenges, Swaziland has been lacking in capacity to conduct the research necessary to inform national policies and to implement appropriate support measures to reduce these hindrances to development (TNC, 2016).

Health

Particularly concerning to Swaziland's development has been high HIV/AIDS and Tuberculosis (TB) rates. Despite Swaziland's small population size, Swaziland is ranked the country with the highest prevalence of HIV/AIDS in an adult population (NDC, 2015[2]). Currently, 46.3% of youth between the ages of 20-24, and 56.5% of those between ages 25-29 are infected (NDC, 2015). The HIV/AIDS epidemic has not only required Swaziland's government to allocate significant resources to increase awareness and establish adequate health provisions, but has also severely exacerbated poverty levels, dwarfing economic growth as the age group that is most affected is reflective of the age group who generally engage in the economy.

Life expectancy

Life expectancy in the Kingdom has increased from 2006 levels of 42 years to 45.6 years in 2014 (TNC, 2016). Despite this improvement, largely a resultant of rigorous HIV/AIDS awareness and HIV/AIDS combatting strategies, Swaziland still has a low life expectancy in comparison to surrounding countries. Life expectancy is further stunted by climate change as its impacts are preventing those reliant directly on agricultural practices, who are also most affected by the HIV/AIDS epidemic from

[2] Swaziland's Nationally Determined Contribution (NDC) is produced by the Kingdom of Swaziland (2015). (To be cited as NDC in this MRP)

food security and a well balanced diet, which are essential for effective HIV/AIDS treatment.

Economic growth

Swaziland is considered a lower-middle income country, however, the country faces similar barriers to development as some of Africa's least developed countries. For example, 63% of the population lives below the poverty line (TNC, 2016). While Agriculture has historically been a mainstay of the Swazi economy, the contribution of Agriculture to Swaziland's GDP has fallen. This has been particularly burdensome on the Swazi economy as 70% of Swazis still depend on agriculture (TNC, 2016). Swaziland's economic volatility is further enhanced by the Kingdom's unique political and socio-economic determinants as explored earlier. In addition, Swaziland's economy is poorly diversified and relies heavily on its neighboring country, South Africa. Swaziland's primary exports include sugar, beef, textiles, forestry products and citrus, 70% of which are exported to South Africa and the European Union. As 80% of the country's imports are from South Africa, Swaziland's economy is especially susceptible to the economic circumstances of South Africa (TNC, 2016).

I. 3. Environmental Context

Swaziland is ranked as one of Africa's ten smallest countries. While the Kingdom is small in terms of land coverage, Swaziland's Third National Communication (TNC, 2016) recognizes the Kingdom's diversity in landscape, climate, and biodiversity. Swaziland hosts four physiographic regions; the Highveld, the Middleveld, the Lowveld, and the Lubombo escarpment. Each of which are characterized by different

climatic conditions. As Swaziland is located at the transition point of major climatic zones, the country faces droughts, floods, extreme temperature fluctuations, and frequent hailstorms (TNC, 2016).

While the nation is prone to natural hazards such as floods in one area and droughts in another, the intensity and frequency of these weather events have been increasing over the years (Nkondze, Masuku, and Manyatsi, 2013). Global climate change models predict that Swaziland will experience a temperature increase of 2.5 °C by 2050 (Nkondze, Masuku, and Manyatsi, 2013). This change in temperature is anticipated to reduce rainfall by 200 mm annually (Manyatsi et al., 2015). In addition, a lack of available water for crop production and livestock sustenance, as well as limited water for human consumption has put Swaziland's population in a serious shortage of water, and continues to be exacerbated by the El Niňo phenomenon (Kingdom of Swaziland, 2016; Sukati, 2016). By February 2016, drought in Swaziland had become so prevalent that the government declared the Kingdom in a national state of emergency (Sukati, 2016).

I. 4. National Climate Change Governance Arrangements

Swaziland's National Development Strategy (NDS) reflects His Majesty, King Mswati III's vision to transition the Kingdom to a 'First World' country by the year 2022, known as *Vision 2022* (Kingdom of Swaziland, 2013). The main areas of concern identified in the NDS include environmental sustainability, economic prosperity, education, health, infrastructure, governance, and corruption. The inclusion of the environment in the NDS is important because Swaziland has only recently considered climate change a development priority (TNC, p.11). This has come to be due to the importance of securing adaptation for safeguarding the

Kingdom's development priorities.

The governance of climate change in Swaziland is delegated to the Department of Meteorology (MET) which is housed in the Ministry of Tourism and Environmental Affairs (MTEA). The MTEA is responsible for Swaziland's adaptation and mitigation initiatives as well as meeting the Kingdom's reporting obligations under the UNFCCC. In 2010 the MTEA established a National Climate Change Committee (NCCC) comprising of governmental and non-governmental stakeholders working towards an integrated and climate resilient development pathway (TNC, 2016). The NCCC has been implemented by the government of Swaziland to address and respond to the impacts of climate change. The NCCC informs Swaziland's national policy framework on the national and international level (TNC, 2016).

National Policy Framework

In response to the threat that Swaziland's socio-economic conditions pose to the country's development priorities, Swaziland released their United Nations Development Assistance Framework of 2016-2020 (UNDAF) (United Nations, 2016). This document outlines Swaziland's ongoing efforts to implement policies to better the socio-economic, and environmental conditions of the country. Unfortunately, the full implementation of the UNDAF has been hindered by the Kingdom's lack of capacity on various levels. Particularly hindering the implementation of UNDAF is a lack of financial resources, technical capacity, and inadequate institutions to monitor and evaluate the implementation of important adaptation actions. Despite the challenges of implementation, the UNDAF is one example of the Kingdom's attempts to better understand the conditions and needs of its citizens.

The NCCC developed the 2014 National Climate Change Strategy and Action Plan, which informed the Kingdom's National Climate Change Policy (NCCP) approved by Cabinet in 2016. The NCCP, which is in line with the NDS (2013) aims to encourage low carbon growth while progressing towards the national sustainable development priorities of the country. While these efforts note considerable milestones for the Kingdom, a lack of adequate resources has hindered the UNDAF and the NCCP from their full implementation and potential (TNC, 2016).

Swaziland and the UNFCCC

On the international level, Swaziland has actively engaged in the UNFCCC since 1995, when the Kingdom became a signatory to the Convention. The Kingdom then adopted the Kyoto Protocol of 1997, affirming Swaziland's commitment to addressing climate change and the objectives of the Convention.

While limited resources burden the Kingdom, Swaziland has nonetheless been able to meet its various reporting obligations to the UNFCCC. To date, Swaziland has submitted three National Communications to the UNFCCC; its most recent *Third National Communication* (TNC) submission is from 2016 (TNC, 2016). The TNC is particularly important as it depicts Swaziland's most recent commitments to adaptation and mitigation in light of the Kingdom's development priorities. Along with the TNC, the Kingdom of Swaziland prepared a report on the country's *Technology Needs Assessment For Climate Change Adaptation* (TNA, 2016[3]). With support from the Global Environment Facility and the United Nations Environment Programme (UNEP), Swaziland's TNA identifies sector specific technology and

[3] Swaziland's Technology Needs Assessment for Climate Change Adaptation (TNA) is produced by the Kingdom of Swaziland's Ministry of Economic Planning and Development (2016). (To be cited to as TNA in this MRP)

capacity building needs of the Kingdom to meet its development priorities. Both the TNC and TNA have been essential for the preparation of Swaziland's NDC and will be useful for informing climate resilient policy in Swaziland.

II. Swaziland's Nationally Determined Contributions

At this point, this chapter has provided an overview of Swaziland's political, socio-economic, environmental, and climate governance landscape. This section aims to explore the diverse areas of implementation for climate action that concern the Kingdom. My intention is not to provide an analysis of Swaziland's NDC, but instead is to highlight the diversity and ambition of the NDC, which will provide insight to the importance of adaptation for Swaziland.

Swaziland submitted its INDC prior to the convening of COP21, and is proud to have been one of the first 12 African Countries to ratify the Paris Agreement. Central to Swaziland's NDC is the fact that the Kingdom contributes less than 0.002% to global GHG emissions yet; climate change impacts have and continue to be detrimental to the development and wellbeing of Swazis (TNC, 2016).

II. 1. Adaptation Contributions

Swaziland was one of the many countries that appreciated the opportunity to explore and present their adaptation priorities to the UNFCCC through the NDC structure. As will become clear, Swaziland's adaptation NDC component is closely linked to the Kingdom's sustainable development priorities, making adaptation an important priority. This section will provide an overview of the various sector specific

vulnerabilities of Swaziland including; the agricultural sector, water sector and biodiversity.

Agricultural sector

Swaziland's Agricultural sector has been greatly affected by changing climatic conditions. Rainfall variations along with land degradation and soil erosion, which have become increasingly common, have exacerbated the severity of drought in the country (Mavuso, Manyatsi, and Vilane, 2015). Changing climatic conditions are anticipated to exacerbate high temperatures, longer dry periods, and increase the likelihood of crop destroying pests. The output from rain fed agriculture and livestock has already decreased by 30% since 2012. As a result, up to 75% of smallholder farmers who rely on rain-fed agriculture have been severely impacted by the reduced rainfall (TNC, 2016). Swaziland is also experiencing a 25.6% of child stunting, due to the malnourishment of children under 5 years of age. The impact of climate change on Swaziland's agricultural sector has placed one-third of Swazi households on emergency food aid (TNA, 2016).

In response to concerns over agriculture, Swaziland's NDC (2015) aims to reduce preventable agricultural losses with four strategies. First, the government plans to incorporate conservation tillage to reduce rates of soil erosion and land degradation. Second, the government plans to enhance crop diversification and greenhouse farming to reduce the disruptions caused by an unpredictable and changing climate to agricultural outputs. Third, Swaziland intends to invest in selective breeding, to allow farmers to breed more climate resistant livestock and crops. Finally, Swaziland plans to incorporate solar dryers in order to assist farmers to

dry produce so that in times of environmental uncertainty or drought for example, there may be fewer cases of severe food insecurity.

Water sector

As a water scarce country, unanticipated variations in water availability in Swaziland may impact the entire nation (TNC, 2016). Swaziland's NDC acknowledges the issue of water scarcity and anticipates a further 40% reduction in river flows, which will severely affect food security. Exacerbated by the El Niño effect, Swaziland is experiencing the lowest water catchment levels ever recorded in the nation. In addition, Swaziland's water resources are being stretched thin due to an increase in the country's population and water usage. In response to the severe water shortage, water rations have been imposed on households in the nations capital for up to four days at a time (Times of Swaziland, 2016).

Given the interconnectedness of Swaziland's water resources to the livelihoods of Swazis, adaptation support for the water sector are an important component of the nation's NDC. Specifically, support received for Swaziland's NDC adaptation efforts for the water sector will include an integrated river basin management, rainwater harvesting techniques, and water recycling, amongst other strategies (NDC, 2015).

Biodiversity and ecosystems sector

Ecosystem management in Swaziland is critically important to the nation's unique ecological diversity. Swaziland's diverse ecosystems provide the nation with environmental and socio-economic benefits. In the environmental context, healthy ecosystems conduct important environmental functions, including water purification.

In the socio-economic context, Swaziland's diverse and lush ecosystems, which continue to attract visitors, have been important to the tourism economy. Increasingly dry areas of the country are making ecosystems susceptible to forest fires, threatening the species diversity of Swaziland (TNC, 2016).

Swaziland's NDC incorporates various factors to protect the Kingdom's diverse ecosystems and species. Amongst these efforts include; the restoration of ecological infrastructures, while creating a long-term biodiversity and conservation management program (NDC, 2015). The government intends to facilitate these efforts through the implementation of agro-forestry, pest management, flood mapping, and land rehabilitation initiatives. This component of the NDC will require financial and capacity building support to be appropriately implemented.

II. 2. Mitigation Contributions

While Swaziland contributes less than 0.002% to global GHG levels (NDC, 2015), the government acknowledges the importance of the Kingdom's initiatives in the global climate effort. Swaziland's emissions as noted in its TNC (2016) are from three of the country's main sectors; energy (31%), agriculture (33%), and industrial processes (34%). Although the potential of reducing emissions from these sources has been identified, the cost assessments for the necessary technologies are yet to be conducted.

Energy sector

Severely limited access to electricity in Swaziland remains a barrier to development as only 27% of the population currently has access to electricity (TNC, 2016). Swaziland's electricity mix is heavily reliant on imports from its neighbours South

Africa and Mozambique; 80% of Swaziland's electricity is imported (Swaziland Electricity Company, 2013). While Swaziland has relied on the South African Electricity Supply Commission for many years, increasing energy import tariffs for electricity have become expensive for the Kingdom (Southern Times, 2012). As demand for South African electricity from rapidly developing African countries increases at a faster rate than in Swaziland due to its small population, Swaziland has incurred high prices for its energy imports. Consequently, the cost of electricity in Swaziland is the most expensive in the entire Southern African Development Community (Southern Times, 2012).

Swaziland's NDC (2015) notes its determination to shift away from its energy dependence on South Africa. In doing so, Swaziland aims to double the share of renewable energy from 16% to 32% by 2030. This will be done by expanding the use of biomass in the Kingdom. This NDC component, which is conditional on support received, intends to implement smaller-scale and decentralized renewable energy technologies.

Transport sector

The most recent nationally collected data of 2010 shows that 60% of emissions from the energy sector are from transportation (TNC, 2016). GHG emissions from vehicles amounted for 9% in 2010 thus, Swaziland intends to introduce a 10% ethanol blend in petrol for vehicle use by 2030. Making the switch to a 10% ethanol blend is intended to reduce GHG emissions from vehicles by 60% by 2050 (TNC, 2016). Second, this switch is anticipated to boost the sugar cane industry in Swaziland, where the ethanol blend will be sourced. The byproducts of the sugar cane industry, which include

bagasse and molasses, can both be used as feedstock for the production of ethanol necessary to make this transition in the transport sector (TNC, 2016).

Industry sector

Swaziland intends to switch its industrial reliance from coal to biomass. Swaziland also intends to transition away from the use of ozone depleting substances in industry through a phase process. In order to achieve this, the Swaziland Environment Authority banned the use and production of ozone depleting substances in the country in 2016, in line with Swaziland's ratification of the Montreal Protocol (TNC, 2016).

This section has explored the Kingdom's diverse nationally determined contributions for adaptation and mitigation. Now that this landscape has been provided, I will conduct an exploration of the barriers to the implementation of the Kingdom's NDC, which will outline the way that the barriers to Swaziland's NDC implementation also hinder adaptation.

III. Constraints, Gaps and Implementation Needs

The full implementation of Swaziland's NDC, provides the Kingdom with a unique opportunity to turn its nationally determined contributions that are in line with Swaziland's sustainable development priorities into national actions. This section will explore the barriers faced by Swaziland in this process with a special focus on understanding how these barriers present a challenge for adaptation.

III. 1. Governance and Lack of Political Buy-in

Adaptation versus mitigation debate

Swaziland believes in the importance of both adaptation and mitigation initiatives for the wellbeing of its citizens. However, for the Kingdom, like many developing countries, adaptation has taken precedence because of the way that climate change has exacerbated poverty and food insecurity, threatening the lives of Swazis.

Due to the various urgent socio-economic and environmental concerns of the Kingdom, Swaziland's priorities as outlined in the country's National Development Strategy (NDS) (Kingdom of Swaziland, 2013) are not limited to climate change. While climate change impacts are contributors to poverty, economic decline, poor health, and certainly food insecurity, Swaziland has had to allocate components of its national budget to combatting the direct threats to human life posed by deteriorating socio-economic and environmental conditions. These conditions have solidified Swaziland's adaptation position in the adaptation versus mitigation debate.

Dual Governance Structure

Swaziland's 2005 Constitution aims to enhance national prosperity and the promotion of rights that were not previously accounted for through the incorporation of both traditional and modern structures (Kingdom of Swaziland, 2005). The Constitution also aims to facilitate transparency and greater accountability amongst the Swazi government, by having both structures active in decision-making. Despite these efforts and potential benefits brought forth by the dual governance structure, the bicameral structure has presented the Kingdom with various challenges for policy making.

A particular challenge presented by the dual governance structure has been a differing of views on certain issues between the traditional and western governance structures. In Swaziland, both the traditional and western governance structures report and advise His Majesty on policy issues. On occasion, both structures advise His Majesty on the same issue, with contrasting advice, creating challenges for policy making. As a result, reaching consensus within the dual governance structure can be time consuming, and has slowed the country's responsiveness to taking action on issues such as the environment.

Second, as separate courts accompany the dual governance structure, responsibility for environmental action falls between administrative uncertainties. The 2007 Economic Commission of Africa report (ECA) notes that although disputes are resolved much quicker and cheaper in traditional courts than under the modern court system, a challenge is that there is a lack of understanding about where the responsibility of jurisdiction for the environment lies between the traditional and modern government.

III. 2. Barriers to Technology Access

As a resource dependent country, Swaziland is disproportionately affected by the impacts of climate change. As a result, access to appropriate technology will be essential for achieving Swaziland's diverse range of adaptation and mitigation NDC components.

Despite the efforts of Swaziland to identify the specific country technology needs, Swaziland's socio-economic realities have made the Kingdom less equipped to cope with adverse climate change impacts. While there has been institutional support provided to developing countries such as Swaziland under the UNFCCC, through the

Technology Mechanism and CTCN for improved technology access, Swaziland continues to face barriers to technology access. To date, Swaziland has undergone two Technology Needs Assessments (TNAs); one for mitigation in 2010 and another for adaptation in 2016.

Chapter 2 makes the case that an institutionalized prioritization of mitigation over adaptation by the UNFCCC has been a challenge for the Africa Group of Negotiators (AGN). This prioritization is evident in Swaziland as the mitigation TNA was conducted in 2010, during a time where the country may have particularly benefited from an adaptation TNA. Swaziland waited an additional six years before receiving the support necessary to better understand the technologies needed to meet its adaptation priorities. Having received institutionalized support from the UNFCCC for adaptation earlier may have presented the Kingdom with the potential to alleviate various adaptation pressures that have exacerbated over time.

During the TNA for adaptation, technology options for the agricultural, water, and biodiversity sectors were carefully investigated. The TNA process allowed experts to decide on the most appropriate technologies to be implemented through a multi-criteria analysis. In this process, technical experts considered various factors, including; capital costs, job creation, and environmental and social impacts (TNA, 2016). While this investigation identified the most appropriate technologies for Swaziland's adaptation needs, the TNA process is yet to identify the specific deployment barriers of the various technologies. Collecting this information will be essential before Swaziland commits to any particular technologies.

Regardless of the technologies eventually decided on by technical experts, Swaziland will need to consider how to access the finance necessary for NDC implementation. In addition to finance, capacity building will play an important role,

as the implementation of technologies extends beyond securing the technologies themselves. The implementation of technologies will also require capacity building so that local experts can maintain the technologies. These issues of finance and capacity building for Swaziland will be explored in the remainder of this chapter.

III. 3. Capacity Building

Capacity building intersects with each of the adaptation and mitigation components explored in Swaziland's NDC. Capacity building is not just important for Swaziland to implement its NDCs, but also to ensure that the actions implemented are durable and responsive to the capacity needs of citizens. This section will explore Swaziland's capacity building barriers specifically for; data collection, climate change education and bridging institutional capacity gaps under the UNFCCC.

Data collection and reporting

Swaziland's ad hoc institutional arrangements have created difficulties for the Kingdom to engage in data collection and reporting. While Swaziland's National Meteorological Service collects atmospheric data, data collection is limited to temperature, humidity, hours of sunshine, atmospheric pressure, wind speed and direction, rainfall, lightning, and evaporation rates (TNC, 2016).

Swaziland has a central statistics office (CSO) that actively collects data and reports on four sectors; the economy, agriculture, demography (population, mortality, and education) and information technology. Given the limited availability of funds, Swaziland's CSO does not have a designated sector that focuses on issues of the environment, nor climate change. Through a special request, the CSO can collect specific data on climate change however, it would be time consuming and dependent

on the availability of resources.

Swaziland's TNC identifies the urgent need to enhance the capacity of local experts on collecting climate change data within the nation's most vulnerable sectors. Given the volatile state of the climate, and the undisputable importance of remaining below 2 °C, all GHG data submitted to the UNFCCC by Parties, including those with low emissions like Swaziland, must report with accuracy on GHG emissions and sinks. Data collection has been particularly lacking for Swaziland's GHG inventory reporting which is required by the UNFCCC. Due to a lack of technical capacity, Swaziland delegates its GHG inventory report to external consultants. While the country has met its reporting requirements to the UNFCCC, there has been no data collection archived for the periods. Similarly, data collection for the industry, waste and water sectors have had to be extrapolated. The lack of capacity for data collection and reporting is largely due to a lack of institutional memory and a lack of national technical expertise, enhanced by the outsourcing of national data collection and reporting processes (TNC, 2016). There is a need to enhance the technical capacity of national experts to be able to conduct this information within the affiliated national institutions in a consistent and accurate manner.

While Swaziland has relied on and benefited from externally funded opportunities for data collection, available funding has sometimes supported projects that do not necessarily fit into the country's specific capacity needs. Swaziland is actively trying to shift away from its reliance on ad hoc institutional arrangements through the request to Swazi Parliament for a permanent data collecting and reporting institution on climate change (TNC, 2016). The approval of this is pending from Parliament, and will likely depend on the availability of funds. A permanent institutional structure will be especially important as the MET and its various

implementation agencies embark in efforts to lead the Kingdom through its NDC implementation phase. Having a permanent institutional structure for data collection will allow for greater monitoring and reporting in a climate governance structure which for too long has been overburdened by a lack of resources and nationally trained experts.

Climate change education and awareness

The critical importance of enhancing awareness of climate change through capacity building has been emphasized in various national documents as well as external research reports. Swaziland's National Communications to the UNFCCC identify the need for awareness and capacity building to better inform the public and government employees of the impacts of climate change.

Generally in Swaziland, there is a low awareness of climate change and its impacts, including within Parliament. This has delayed the development of appropriate national climate action and policies. A study conducted by the International Institute for Environment and Development in partnership with European Parliamentarians for Africa (Brown, 2011) investigated the role of the Swazi Parliament in addressing climate change. The findings demonstrated that while some Members of Parliament had an understanding of the importance of climate change, many were unclear about the specific impacts of climate change on the Kingdom. Members of Parliament further articulated uncertainty on how the Kingdom should adapt to climate change and the sorts of policy and implementation strategies that would equip various ministries to appropriately deal with climate change. For many years climate change has not been governed by a clear Parliament response strategy, hindering climate action and particularly adaptation efforts across

the country.

Similarly, the Southern African Regional Universities Association's Swaziland Country Report (SARUA, 2014) identified the need for capacity building for education, training, and public awareness and highlights a lack of awareness over climate change as a significant barrier to adaptation. The investigation by SARUA conducted interviews on Ministry employees who are active in decision-making. The quote below from a Ministry employee suggests that there is an identified need for a greater awareness on climate change;

> We need specialists trained on climate change issues, adaptation, and mitigation in each and every Ministry or organization. Universities need to introduce programs on climate change long term or short term in order to capacitate communities. Communities must be well informed on issues of climate change and survival skills" (SARUA, 2014, p.36).

Bridging institutional capacity gaps

Improved data collection, reporting mechanisms and an increase in national awareness on climate change will present valuable contributions to the capacity of decision makers to deal with climate change in the Kingdom. Swaziland's TNC (2016) notes that the primary institution that has been tasked to deal with climate change- the MTEA, is facing a severe shortage of trained staff for the NDC implementation. The MTEA will need to ensure the implementation of a specific capacity building coordination strategy that is inclusive of various stakeholders including; government, the private sector, and civil society organizations (TNC, 2016). The MTEA will need to ensure the careful management of financial resources

and coordinate the various institutions accordingly so that any data collected is appropriate to fill existing research gaps. The Kingdom's TNC (2016) notes the importance of better coordination between the Department of Meteorology and the Disaster Management Agency for more efficient adaptation operations. Similarly, in order to prepare for the full implementation of Swaziland's NDC, there may need to be some restructuring of the various ministry departments to ensure clarity on individual and institutional roles and responsibilities.

UNFCCC's support for capacity building

The extent of support that Swaziland will be able to secure under the Paris Committee on Capacity Building (PCCB) will remain uncertain until the details of the PCCB under the Paris Agreement are decided. Particularly concerning to Swaziland is the lack of obligation from developed countries to provide funding for capacity building, as Swaziland will rely considerably on capacity building support for the implementation of the NDC.

One area that Swaziland has been approved capacity building support on is a Climate Technology Center and Network (CTCN) initiative to "build capacity for climate change science" (Bafana and Ndhlangamandla on behalf of the Kingdom of Swaziland, 2016; 2017). The project to be funded by the CTCN is anticipated to enhance awareness of Swaziland's climate change priorities and concerns in relation to the country's development needs. This is to be achieved through the creation of a national training manual to be used for workshops to enhance awareness on climate change. This technical assistance project is particularly important for Swaziland as the Kingdom lacks adequate training for public awareness to effectively facilitate the development and implementation of climate change adaptation initiatives.

III. 4. Barriers to Accessing Finance

Lower-middle income country status

Various climate change and development funds made available through the UNFCCC are intended to assist the world's most vulnerable countries with their climate actions. Swaziland's GDP per capita, which is higher than some of Africa's least developed countries, classifies Swaziland as an emerging economy, and thus, a lower-middle income country. A challenge with this ranking is that Swaziland's GDP per capita does not reflect the socio-economic realities of 63% of Swazis who live below the poverty line (TNC, 2016).

As a lower-middle income country Swaziland has received funding from the Overseas Development Assistance (ODA), which intends to alleviate the sustainable development challenges of countries. Given the HIV/AIDS crisis in Swaziland, a significant allocation of ODA funds have been diverted to combatting the epidemic that has been crippling to Swaziland's health and economy (PEPFAR Swaziland, 2016).

Swaziland's ranking as a lower-middle income country, has also overlooked Swaziland's declining economic conditions (PEPFAR Swaziland, 2016). The economic strain in Swaziland has hindered the government from filling various positions in the country's key sectors for example; health, education, finance, and environmental sectors. This has weakened the government's potential to deal with and to respond to unpredicted situations. The government's inability to handle volatility has been worsened by the 2015-2016 drought, that has forced the Kingdom to allocate its already limited funds to urgent drought relief actions (PEPFAR Swaziland, 2016).

Corruption on the national level

A significant barrier hindering Swaziland's access to finance for climate resilient development is corruption. Swaziland established the Anti-Corruption Commission to tackle corruption and its negative impacts. The Minister of Finance of Swaziland noted that economic losses to corruption amounted to US$ 134.4 million annually, which is approximately 3% of Swaziland's GDP and a total of 14% of government revenues (Hope, 2016). Hope (2016), further identifies that losses from corruption equated to 1.5 times the national health budget for the fiscal year of 2012-2013 and over a half of the Kingdom's budget for education.

These losses have required an unanticipated reallocation of funds to deal with Swaziland's urgent development concerns. His Majesty King Mswati III has in various platforms expressed a zero corruption tolerance. In a speech at the Opening of Parliament in 2006, as quoted by Simelane (2012), King Mswati III stated;

> While we might be able to put a lot of effort in fast-tracking our economy, we must be alert to the fact that corruption is yet another factor that cripples the nation's development efforts. If left unchecked, corruption will certainly destroy our economy and reverse the gains of the past.

Tackling corruption has become a priority for Swaziland as it has the potential to weaken governance and institutional structures that are essential for sustainable development and poverty alleviation. Corruption also jeopardizes Swaziland's ability to access various funds due to a concern for the appropriate allocation of funds. This barrier disrupts the Kingdom's ability to secure adequate funds for climate action from various platforms.

Barriers to accessing funding support under the UNFCCC

Swaziland's ranking as a lower-middle income country along with its weak institutional capacity has been problematic for accessing funds for development and climate finance. As of 2014, Swaziland and Somalia were the only two countries of 49 sub-Saharan African countries that had not secured any climate finance funds. South Africa on the other hand has received 25% of all of the approved climate funds for the sub-Saharan African region since 2003 (Barnard, Nakhooda, Caravani, and Schalatek, 2014). Of all climate finance available to developing countries, 40% of it is directed towards mitigation. Although countries like Swaziland would certainly benefit from funds for the integration of mitigation to their national development strategies, the low adaptive capacity of the country has required adaptation to be a higher national priority. A common barrier to finance experienced by Swaziland is the weak institutional capacity of the country to prepare competitive proposals in relation to other lower-middle income countries.

As Swaziland has yet to conduct an investigation on the cost of their technology needs, the uncertainty of the Kingdom's specific financial needs causes a barrier to accessing funds under the UNFCCC as countries that have put forth funding proposals are expected to know their specific financial needs for their various climate actions.

In addition, the climate finance application process requires countries to have the institutional capacity to efficiently absorb funds received. Swaziland lacks this due to its weak institutional capacity further hindered by a lack of finance and technical capacity. Further, access to information and reporting for these projects has also proved to be challenging. This is primarily because data collected and reported to

meet national Swazi government requirements are different to the reporting requirements of the UNFCCC. This has made reporting burdensome for developing countries such as Swaziland who already rely on externally funded consultants for the national reporting due to a lack of technical expertise on the ground.

As a lower-middle income country, Swaziland has not been required and thus, does not receive support under the UNFCCC to conduct a National Adaptation Programme of Action (NAPA) as is required from LDCs. While NAPAs are adaptation plans, they have been a useful source of information for identifying the exact adaptation needs of countries. Countries that have undergone the NAPA process are better geared to complete competitive funding proposals as their NAPA serves a holistic depiction of the country's circumstances and needs. This information is important to government, stakeholders, and donors.

In examining NDC implementation, it is clear that there are barriers that a developing country like Swaziland must overcome. The barriers to NDC implementation identified in this chapter are also barriers to adaptation. Since adaptation is an important priority to Swaziland, addressing the barriers to adaptation must be a priority in the NDC implementation pathway as overcoming them presents a potential to turn the work of the Paris Agreement into a pathway for empowerment. The next chapter will provide a discussion based on the lessons learned and will explore the opportunity presented by adaptation reporting and overcoming the NDC implementation barriers moving forward.

CHAPTER 4 The Road Ahead

As the threat of climate change is the primary concern of those living on the frontlines, representatives and negotiators of countries that are most exposed to climate impacts are working to ensure adequate provisions for adaptation in the negotiations. As outlined in chapters 2 and 3, adaptation has and will always be important to developing countries, this is especially so for the Africa Group. The Paris Agreement establishes a framework that encourages the integration of adaptation strategies along with mitigation in the implementation of Nationally Determined Contributions (NDCs). While the Paris Agreement indisputably presents a milestone for adaptation efforts, it remains an open question how an adaptation pathway should be integrated into NDC implementation to best respond to the imminent threats of climate change and the adaptive needs of vulnerable groups.

In working towards the broad purpose of this MRP, which is to understand how adaptation can be balanced with mitigation in the NDC implementation, the aim of this chapter is to provide a synthesis discussion in response to the barriers to NDC implementation as identified in the previous chapters. I will provide an account of the lessons learned regarding the barriers to the implementation of adaptation in the NDCs and connect them to the role of reporting as is being discussed from the perspective of the Africa Group. This chapter will then outline the opportunities presented by adaptation reporting towards fulfilling sustainable development priorities. I will conclude by proposing that proactively engaging in overcoming the barriers to NDC implementation presents a pathway for empowerment moving forward.

I. The Road Ahead

As explored in chapter 2 and 3, the climate governance architecture of the Paris Agreement has given adaptation a much-needed platform. Despite this platform, there is work to be done to develop a durable and long-term roadmap for the implementation of adaptation actions under the Paris Agreement. The push from developing countries to move from adaptation planning to implementation (Sharma, 2016) brings to the fore the question of how exactly adaptation should be integrated into NDC implementation. An appreciable concern over adaptation includes, as articulated by Lesnikowski et al., (2016) a lack of precision over 'reference' points from which adaptation progress will be implemented and measured.

In response, this MRP has attempted to begin the work needed to understand the reference points of how adaptation should be balanced with mitigation in the NDC implementation. Before any technical work can begin, there must first be an understanding of the needs, priorities and concerns of developing countries. In order to appreciate these needs and priorities, there must be a systematic understanding of the barriers to the implementation of adaptation in the NDCs. Once this is clarified, only then can Parties engage in a response to develop a long-term adaptation pathway for NDC implementation. The following section draws on the barriers and lessons learned to NDC implementation, which aims to lay the groundwork to identify steps forward for a potential adaptation pathway for the Africa Group.

II. Lessons Learned on the Barriers to Ambitious Climate Action for the Africa Group

The barriers to adaptation implementation in the NDCs as presented below signal some of the most pressing needs for assistance for developing countries. This investigation has identified political buy-in, finance, technology access, and capacity building as the most considerable barriers to NDC implementation.

Entry into force of the Paris Agreement is not enough

The speed at which the Paris Agreement was ratified is impressive for its illustrative global commitment in support for a new climate governance structure. Unfortunately, the early entry into force of the Paris Agreement is not enough for developing countries who are facing a disproportionate burden of climate change, for whom adaptation support falls particularly short. The reality is that under the Paris Agreement, much of the details regarding the mechanisms of support and accountability for climate action are yet to be detailed (Spash, 2016). These details, particularly with regards to capacity building and predictable finance are of utmost importance to developing countries, yet there remains little clarity on the details of either.

Support for adaptation means of implementation

As adaptation has lagged behind mitigation over the history of climate governance, so has its ability to secure funds for support. This has raised an important question at the heart of the climate negotiations about adaptation support. The Adaptation Fund, which is intended to support adaptation initiatives, is not near to securing the finance

necessary to support or even overcome the barriers to the means of implementation explored in earlier chapters of this MRP (Lyster, 2016). For example, by July 2015, the Adaptation Fund had approved support for various adaptation projects amounting to US$ 316 million, and the fund had only secured US$ 483.3 million at the time (UNFCCC Adaptation Fund Board, 2015a). While the Adaptation Fund has been making efforts to support Parties, a concern of developing countries is that only 19 developing countries have actually been accredited for a direct access to financial support from the Fund (UNFCCC Adaptation Fund Board, 2015a). While part of this is due to weak institutions and a lack of capacity in developing countries, as witnessed in the case of Swaziland, the Adaptation Fund is currently responding to the adaptation needs of only a small fraction of developing countries.

While finance admittedly is the most considerable barrier to climate action, it is not the only condition necessary for ambitious climate action. Although an in-depth exploration of the barriers accessing finance is essential, this work can be pursued separately from this MRP. My aim below is to focus on the conditions that need to be satisfied along with finance for ambitious climate governance. Along with finance, access to the appropriate technologies for the implementation of adaptation initiatives is a significant hurdle for developing countries. Chapter 3 highlights that technology transfer is not simply about making technologies available to developing countries, it is also about ensuring the implementation of effective capacity building strategies to facilitate the longevity and national sovereignty in the implementation of climate actions.

Within the framework of the Paris Agreement much emphasis is put on technology as a tool to combat climate change (Spash, 2016). Unfortunately for developing countries, the current architecture does not enforce binding restrictions on

global emissions. Instead, the Paris Agreement encourages GHG reductions and emphasizes technological innovation. As Glachant and Dechezleprêtre (2016) emphasize, a strong emphasis on technology overshadows the fact that only a few emerging markets have benefited from technology transfer under the existing Framework; in fact LDCs are yet to benefit given their disconnect to global economies. This signifies additional work needed to be done under the Technology Framework of the Paris Agreement to ensure widespread access to technology for the implementation of adaptation initiatives. In addition, while countries are encouraged to participate in technology transfer and to look to technology for low carbon solutions, the TEC is itself constrained by a limit in available finance (Glachant and Dechezleprêtre, 2016). As a result, in order for a more efficient transfer of technologies to assist developing countries to implement adaptation actions, there must be greater collaboration between the finance and technology mechanisms of the UNFCCC. As noted by Glachant and Dechezleprêtre (2016) these efforts will require a close collaboration of these mechanisms to those of capacity building so that Parties will be able to better absorb the support received.

Weak enforcement mechanism

The architecture of the Paris Agreement welcomes bottom-up commitments from Parties, making it essential that all Parties deliver on their contributions. Supporters of the architecture of the Paris Agreement, including Lesnikowski et al., (2016) believe that a core strength of the Paris Agreement is its 'procedural' components, such as the adaptation communications of Article 7 (UNFCCC, 2015b) which have been recognized for their potential to enhance implementation through transparent communications and reporting. Others including Spash (2016), Sharma (2016) and

Lyster (2017), believe that the Paris Agreement does not adequately ensure enforcement, which is necessary for developing countries and the global climate effort. Although some Parties identify reporting under the Paris Agreement as burdensome, this chapter will emphasize the potential of a robust commitment to adaptation reporting for developing countries.

The synthesized barriers to NDC implementation above emphasize that the adaptation needs of developing countries cannot be addressed without adequate support for finance, technology transfer, and capacity building. Although these barriers present real challenges that must be overcome by Parties over time, the structure of the Paris Agreement should not be overlooked or undermined for its significance in bringing to the forefront various support mechanisms to enhance adaptation implementation that were not previously in existence. Appreciating the difficulty in preventing a situation of backpedaling on commitments as occurred under the Kyoto Protocol, there is substance in a carefully crafted and agreed upon architecture with flexible yet inclusive features as present under the Paris Agreement. One of such structures under the Paris Agreement that presents Parties with a long-term opportunity is adaptation reporting. Clear and consistent adaptation reporting by all Parties, particularly during the implementation of NDCs will be important for developing countries in their efforts to overcome the barriers to implementation identified in chapters 2 and 3. Clear adaptation communications will allow parties to share their best practices, lessons learned, and specific support needs with each other. This may in turn assist in the process of working towards overcoming the barriers to adaptation implementation, which is necessary in achieving a balance between adaptation and mitigation in the NDC implementation.

III. Adaptation Reporting: From burden to opportunity

The structure of the Paris Agreement calls for ambitious climate action from all Parties. In order to better respond to the needs of developing countries, the Paris Agreement establishes various structures to facilitate a process towards the balance of adaptation with mitigation. The Global Goal on Adaptation (GGA) established under the Paris Agreement is one of such structures established in response to emphatic calls for a GGA from the Africa Group of Negotiators. The GGA's purpose as noted in chapter 2 is to facilitate the process of balancing adaptation with mitigation while enhancing the adaptive capacity of Parties and strengthening community resilience. The efforts of the GGA are aimed at developing an adaptation pathway that can also contribute to sustainable development.

To support the GGA, the Paris Agreement establishes the Technical Examination Process on Adaptation (TEP-A) (UNFCCC, 2015b, paragraph 124) and Adaptation Communications (UNFCCC, 2015b, Article 7(1)). The TEP-A aims to identify opportunities for enhancing adaptation pathways by strengthening resilience and reducing vulnerabilities. The Adaptation Communications have been established so that Parties can report on their adaptation progress made in their NDCs, which is important for progressing towards national sustainable development priorities. Essentially, in order to make progress on the GGA, it will be important that information attained during the TEP-A process that aims to identify pathways for adaptation implementation is made public and is accessible. This is possible through adaptation reporting and communications.

Under the architecture of the Paris Agreement, while the reporting of GHG inventories and National Communications are required, reporting on adaptation

through adaptation communications is recommended, but not required (Article 13(7)). In addition, the vehicle under which adaptation can be reported is flexible (Article 7(11)), allowing Parties to report on adaptation through already existing reporting mechanisms. This flexibility is reflective of the Paris Agreement's procedural efforts to ensure that adaptation communications should not create any additional burden to developing countries.

For many developing countries, it is important that this flexibility of reporting remains so that communications do not become an additional burden. These concerns were raised through the submissions made by Parties to the UNFCCC (see Party submissions on Further Guidance in Relation to the Adaptation Communication, FCCC/APA/2016/INF.2, October 2016). Parties again expressed concerns for adaptation communications during the informal consultations of the Bonn Ad Hoc Working Group on the Paris Agreement (APA) Session; May 2017, which is the halfway point between COP 22 and COP23. Some negotiating blocs, including the Africa Group of Negotiators expressed their support for the importance of adaptation communications, while others emphasized that adaptation communications should not be an obligation of developing countries (see submission from Argentina on behalf of Argentina, Brazil and Uruguay, October 2016, FCCC/APA/2016/INF.2, p.3).

The requests from some Parties to not report on adaptation are the crux of an important discussion that has implications for all Parties. On the one hand, developing countries request support and the reporting of support provided from developed countries. On the other hand, some developing Parties request to not have to engage in adaptation reporting themselves so as not to endure additional burdens. This creates a question around how the ask for support without reporting obligations will work

together, as a lack of reporting on adaptation may hinder the process of overcoming the barriers to NDC implementation.

In order to better weigh into this discussion, two things must be understood. First is linked to the unique procedural features embedded in the architecture of the Paris Agreement under which reporting does not have to be a burden. And second, is the great potential that adaptation reporting presents to the national level for empowerment and in progressing towards sustainable development.

First, in the spirit of the Paris Agreement, its architecture is intended to be facilitative and non-punitive to ensure that all Parties play their part in the global climate effort. In doing so, there is the recognition that some developing countries, depending on their circumstances might not have the appropriate institutions in place to fulfill reporting requirements. If the architecture of the Paris Agreement embodied a top-down, punitive structure such as its predecessor, the Kyoto Protocol, reporting on adaptation would indeed be burdensome. However, in light of the architecture of the Paris Agreement, significant progress towards the full implementation of the NDCs can only be made if Parties take action in a true spirit of working together. Adaptation reporting and communication presents Parties with such an opportunity. An anticipated objection may question this outlook as possibly downplaying the realities and needs of developing countries. However, such an objection would overlook important considerations and features of the Paris Agreement, particularly its call for collaboration and inclusivity.

Second, adaptation communications have the potential to greatly benefit developing countries. Should adaptation reporting be recognized for its potential in enhancing the adaptive capacities of developing countries and its contribution to sustainable development, Parties may realize that reporting on adaptation is not a

burden, but an opportunity instead. Although reporting is voluntary for developing countries under the Paris Agreement, in order to ensure a long-term balance of adaptation with mitigation in the implementation of NDCs, adaptation reporting is essential. A lack of due diligence on the reporting of adaptation may in fact threaten the longevity of adaptation contributions. This in turn may hinder developing countries from truly safeguarding their adaptation and sustainable development priorities.

Opportunities presented through adaptation reporting

Reporting on adaptation related information, as is encouraged under the adaptation communications provides benefits to Parties on the international and national level. Internationally, adaptation reporting from individual Parties will be useful towards the Global Stocktake, which will allow Parties to identify their collaborated progress towards the Paris Agreement. Nationally, proactive adaptation reporting that identifies country needs, priorities, and intended actions may assist developing countries in identifying the progress made towards their national climate agendas, and their broader development goals (Kato and Ellis, 2016). An increase of accessible adaptation related information, possible through adaptation reporting might increase the likelihood of securing funding from international platforms. An increased availability of adaptation information could assist in overcoming some of the barriers faced by developing countries such as Swaziland in accessing international climate finance as identified in chapter 3.

Finally, adaptation reporting will allow countries to identify and better understand their lessons learned in the planning, monitoring, and evaluation phase throughout the implementation of their NDCs. An understanding of this will be

especially important in improving the ongoing implementation of adaptation to overcome existing barriers. The benefits associated with adaptation reporting and communications have the potential to improve the overall implementation of adaptation and encourage ownership over adaptation actions.

Linking adaptation reporting to sustainable development

As has been discussed above, adaptation reporting presents an opportunity for developing countries to improve on their adaptation pathway over time. An improved adaptation pathway is an essential component to achieving broader sustainable development priorities as signaled in Swaziland's NDC. Adaptation communications would be especially important to national initiatives such as Swaziland's National Development Strategy (2013) and to His Majesty's Government Programme of Action (2013-2018) (Kingdom of Swaziland, Ministry of Economic Planning and Development). This is because adaptation communications may enhance the overall awareness and accountability of national governments in response to their adaptation plans as reporting may identify specific adaptation related vulnerabilities that might not have been known prior (Kato and Ellis, 2016). In addition, access to this information might assist governments to recognize the extent to which their adaptation interventions are progressing, or not, towards the overall country and sustainable development priorities.

Kato and Ellis (2016) outline the specific links between adaptation and sustainable development, emphasizing the role of an effective adaptation pathway for poverty alleviation, food security and water resource management, all which have been identified as adaptation concerns for Swaziland in chapter 3. Having greater clarity on these issues through adaptation reporting and given the interconnected

nature of adaptation to sustainable development, there is credibility in considering that the benefits presented by adaptation reporting under the Paris Agreement may assist in overcoming some of the barriers to achieving the sustainable development priorities of Parties.

Essentially, the work that must be done to overcome the barriers to implementation identified in this MRP, presents an opportunity that can become known to Parties through reporting. Developing countries can proactively work towards adaptation reporting through assistance received under the UNFCCC. Parties and non-member states will need to consider the current reporting communications of the Paris Agreement not as burdens but as opportunities- opportunities for empowerment, ownership, and sovereignty over national climate actions. A more positive outlook for reporting in an adaptation implementation pathway is important, as the success of the Paris Agreement is now in the hands of Parties themselves.

The Africa Group leading the way

The spirit of the Paris Agreement aims to empower and facilitate action so that all Parties have an important role in the global climate effort. As has been explored, the Paris Agreement created the conditions necessary for Parties to work together regardless of individual circumstances. Having provided Parties with the necessary procedural frameworks, I reiterate, the success of the Paris Agreement is no longer in the hands of the UNFCCC, but in the hands of Parties themselves. A more positive outlook, that turns the burden of reporting into an opportunity for a long-term adaptation pathway presents a unique opportunity for leadership from the Africa Group. In its submission to the APA (October, 2016, FCCC/APA/2016/INF.2, p. 32-39) the AGN emphasizes the significance of adaptation communications for the

Global Stocktake and the global climate effort. As emphasized in chapter 2, the AGN is dedicated to be part of the larger climate change solution, and the need for a leader for a positive outlook on adaptation reporting presents the AGN with this opportunity.

As a negotiating bloc representing the views of 54 countries with one unified voice, the AGN's emphatic dedication to adaptation and safeguarding sustainable development priorities in the climate negotiations presents the bloc with the potential to direct Parties towards a more positive adaptation pathway. In recognizing their role as influencers of the adaptation pathway, and pioneers of the Global Goal on Adaptation (GGA) the AGN should lead Parties in this more liberated outlook. The AGNs dedication to balancing adaptation with mitigation in the implementation of NDCs and their emphasis for adaptation that is responsive to the needs of developing countries may encourage Parties to purposefully embark on adaptation reporting.

In thinking ahead, there remains much work to be done by Parties to balance adaptation with mitigation in the NDC implementation. During this time, it will be important that the AGNs leadership collaborates with existing structures such as the Capacity Building Initiative for Transparency (CBIT) of the Paris Agreement that aims to assist developing countries to achieve reporting, along with other mechanisms. A strong collaboration with the existing structures of the Paris Agreement will assist developing countries to adequately engage in the important process of adaptation reporting. In addition, collaboration with non-state actors who are actively working on understanding the needs of various negotiating blocs may present valuable assistance in this process. My goal in this section has not been to provide these avenues for collaboration, but to propose that adaptation reporting in the NDC implementation should be considered an opportunity for national ownership and for empowerment, and not a burden.

In making progress on the work necessary to balance adaptation with mitigation in the implementation of NDCs it will first be important for developing countries to understand the barriers hindering adaptation in their NDC implementation. Once there is clarity on these barriers, it will be in the interest of developing countries to take the necessary steps to overcome the barriers. In order to gain such leverage, adaptation reporting and communications will be fundamental. If the flexibility provided for under the Paris Agreement is used by Parties to tailor and develop their adaptation communications based on their specific implementation needs, there may be potentials realized for national empowerment and towards sustainable development. To benefit from these potentials, adaptation reporting must be ongoing, Party driven and accessible throughout the NDC implementation phase.

This chapter has provided a synthesis discussion towards the broad purpose of this MRP that is concerned with how to balance adaptation with mitigation in the NDC implementation. The chapter provided a brief account of the lessons learned throughout the MRP regarding the barriers to NDC implementation from the perspective of the Africa Group. After outlining these barriers, I have emphasized the importance of understanding these barriers for a better consideration of the needs of the Africa Group. The chapter then makes a case for developing countries, under the leadership of the AGN to commit to adaptation reporting for its potentials for empowerment, progressing on sustainable development goals and balancing adaptation with mitigation in the long-term.

To conclude, the purpose of this MRP was to shed light over how to balance adaptation with mitigation in the NDC implementation. I have approached this question within a governance framework and in relation to the architecture of the

Paris Agreement under the UNFCCC. As was stated from the outset, a clear answer cannot be found without first having an understanding of the concerns and priorities of Parties. This MRP examined these concerns from the perspectives of countries representing the Africa Group. By focusing on the Kingdom of Swaziland as an illustrative case, the MRP identified specific vulnerabilities to climate change and has called attention to the importance of adaptation support for developing countries in the implementation of the NDCs.

Overcoming the barriers to NDC implementation is important, because historically, adaptation has lagged behind mitigation. However, as this MRP has shown, adaptation has a disproportionate importance for developing countries. An understanding of the barriers to implementation with a focus on adaptation has identified that there is an opportunity presented to African countries to lead the way in proactively overcoming these barriers. Overcoming these barriers presents a potential to turn the work of the Paris Agreement into a pathway of empowerment and towards sustainable development. While there remains much work to be done on the road ahead, this MRP attempts to contribute to this process by clarifying the pathway of NDC implementation, particularly for adaptation from a governance perspective to provide direction moving forward.

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