The Role of the Environment on Irregular Migration in The Gambia, West Africa: Implications for Climate Change Adaptation Policies

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Abstract

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As climate change worsens, populations around the world must continue to find innovative ways to adapt with the increased impacts and pressures from changing environments. Increasingly, migration is being viewed as a valid adaptation strategy by researchers and policymakers alike. This thesis looks at the framing of migration as an adaptation strategy, first, through a discourse analysis of West African policies, and second, through empirical research in The Gambia. It became evident that migration is being viewed as an adaptation strategy both in national-level policies and locally by Gambians attempting to improve their livelihoods. This thesis argues that adaptive migration should be better incorporated in policy frameworks and viewed as a valid adaptation strategy. Gambians and vulnerable populations around the globe will bear the brunt of climate change, despite contributing the least to the crisis. Global cooperation is needed to ensure vulnerable populations are protected and human rights are upheld.

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Chapter 1: Introduction

1.1 Overview

The Intergovernmental Panel on Climate Change (IPCC) has identified that African countries will be disproportionately affected by climate change, facing impacts such as sea level rise and desertification, posing a direct threat to food security, water supply and economic livelihoods with global warming of just 1.5°C to 2°C (2018, 2022). Vulnerable populations around the globe will bear the brunt of these impacts, despite contributing the least to the problem (IPCC, 2022). With increased impacts and pressures from changing environments, migration is increasingly being considered by researchers and policymakers as an adaptation strategy to deal with the consequences of climate change (IPCC, 2022). This thesis looks at the framing of migration as an adaptation strategy, first, through a discourse analysis of West African policies, and second, through empirical research in The Gambia. Discourse analysis of national climate change policies of West African countries was conducted to determine if or how migration is being framed in national policy, followed by interviews with Gambians to understand whether migration is an active consideration when adapting to environmental degradation and stressors. Based on the results from both analyses, recommendations are made for future climate change adaptation policies and how to proceed with migration management.

1.2 Research Questions

The following research questions will be addressed in this thesis:

- Is migration being considered as an adaptation strategy in national climate change policies of West Africa?

- What role does environmental degradation play as a driver of irregular migration in The Gambia?
- What are policy recommendations for migration management and climate change adaptation in West African countries?

1.3 Research Area

The Gambia is situated in West Africa and holds the title as the smallest country located on the African mainland at only 11,295 km². Despite its small size, The Gambia is home to just over two million inhabitants. The country has a complex colonial history, having only received independence from the United Kingdom in 1965 (Access Gambia, 2020). Between 1965 and 1996, Dawda Jawara ruled under the People's Progressive Party as a liberal democracy and since 1996, the country was ruled by dictator Yahya Jammeh. Jammeh was elected as the chairman of the Armed Forces Provisional Ruling Council (AFPRC), a military coup that overthrew the previous government (Access Gambia, 2020). In 2016, Adama Barrow won the election, bringing democracy back to The Gambia. With the return to democracy also came protests as people were now able to freely express their dissatisfaction with the current regime, without facing persecution. Many of these protests concerned the deteriorating environmental conditions of The Gambia.

Due to the location of The Gambia bordering the Atlantic Ocean and its proximity to the Sahara Desert, the country is at an increased risk from climate change. Around 200 000 Gambians rely on coastal resources for their livelihoods, with the fisheries and mangrove sectors contributing approximately 12% to the gross domestic product (GDP) (Jaiteh and Sarr, 2012, p. ix). Residents are already experiencing negative consequences due to environmental changes such as sea-level

rise, desertification, and erosion, yet these effects are expected to be exacerbated in the future (Government of The Gambia, 2013). Environmental degradation is already prominent along the coast and increasing foreign investment is contributing to further development, increasing the vulnerabilities of coastal communities to the future projections of sea-level rise. The risk to ocean and coastal environments is compounded by overfishing from international vessels, creating food insecurity in the communities, while also placing financial constraints on the fishermen due to lowered catches (Cabral et al., 2018).

Many communities in The Gambia still rely on rainfed subsistence agriculture with the production of groundnuts and other crops constituting the largest proportion of the Gambian economy (Jaiteh and Sarr, 2012, p. viii). With 99% of croplands in The Gambia being irrigated solely through rainfall, one of the major impacts facing agriculture is increased frequency and duration of drought events (Jaiteh and Sarr, 2012, p. viii). Jaiteh and Sarr (2012) outlined some of the anticipated effects from persistent drought scenarios in The Gambia as:

> . . . ecosystem desiccation through increased salinization in freshwater wetland and mangrove ecosystems, loss of productivity in croplands, saltwater intrusion up the river, deforestation, and loss of productivity and biodiversity in woodland ecosystems as a result of wildfires and land use change (p. viii).

Agriculture not only comprises the main food source for Gambians, but also contributes 26% of the GDP, and employs around 68% of the labour force (Jaiteh and Sarr, 2012, p. viii). The

potential for reduced crop yield not only poses economic constraints threatening livelihoods, but also social constraints as there is a direct risk to food security.

In addition to being vulnerable to the impacts from climate change, The Gambia has a high rate of irregular migration, locally referred to as backway, compared to other African countries. Between 2009 and 2019, over 46 199 migrants crossed the Mediterranean and entered Europe from The Gambia – one of the highest per capita rates of irregular migration in Africa (Jammeh, 2019). The already high level of migration, paired with high risk and vulnerabilities from climate change impacts, makes The Gambia an ideal case study. I have previous experience attending a field school in The Gambia and I am working with Dr. Cathy Conrad Suso, who has long-standing connections in the country and peer-reviewed research on the theme of migration (Conrad Suso 2019, 2020, 2022, 2023 forthcoming). Having prior connections with people in The Gambia benefits my research by providing access into local communities.

Chapter 2: Framing Environmental Migration

2.1 Defining Environmental Migration

Environmental migration is "the movement of a person or groups of persons who, predominantly for reasons of sudden or progressive change in the environment due to climate change, are obliged to leave their habitual place of residence, or choose to do so, either temporarily or permanently, within a State or across an international border" (IOM, 2019, p. 63). Environmental migration is interchangeably used with the term climate change migration and in the case of displacement or forced migration, it refers to a group of people known as environmentally displaced persons, environmental refugees, or climate refugees, "a category of environmental migrants whose movement is clearly of a forced nature" (IOM, 2019, p. 30). It is important to note that official refugee status does not exist for those who are displaced by climate change, but calls have been made to incorporate this group into legally binding agreements (Berchin et al., 2017; Nishimura, 2015) and to continue using the term to avoid de-politicizing the reality of environmental migration (Gemenne, 2015). The concept of environmental refugees will be discussed in greater detail below. The terminology surrounding environmental migrants has been used in academia and policy circles since the topic became prominent in reports published in the 1980s (Foresight, 2011, p. 26). Since then, environmental migration has been dominated by three framings in academia and policy circles: "(a) irregular migration related to environmental change and resource shortages as a border security issue, particularly for areas of destination; (b) protection of environmental migrants; and (c) environmental migration as a form of adaptation and climate risk management…" (IOM, 2020, p.254).

Although these terms are conventionally defined, there is legal ambiguity as to what constitutes a person being environmentally displaced (Marshall, 2015). Due to the interdisciplinary nature of environmental migration, there are many cross-disciplinary actors involved in the environment-migration nexus, including those involved in the management of both migration and environmental sectors (Foresight, 2011). Working in this area requires a diverse group of policymakers with those involved in "adaptation funding, development cooperation, urban planning, rural affairs, conflict management and disaster planning as well as migration and environmental policy" (Foresight, 2011, p. 26).

2.2 Causes of Environmental Migration: Rapid Onset Versus Slow Onset Push Factors

Environmental migration is classified at two different temporal scales; one which occurs suddenly (rapid onset) and one that occurs over time (slow onset). Rapid onset is associated with events that occur sporadically and pass relatively quickly, characterized by natural disasters such as hurricanes, wildfires, and flash flooding (Oscar, 2013, p. 13). Slow onset environmental push factors occur gradually and over a longer temporal scale, most frequently linked to the effects of climate change. Slow-onset events can be characterized by phenomena such as desertification, sea-level rise, increasing temperatures and water stress (Rigaud et al., 2018, p. xix). Slow onset climate drivers pose legal challenges in migration because it is often more difficult to isolate their role in contributing to human mobility (OHCHR, 2018) compared to natural disasters where people face immediate displacement. Understanding the impacts and their repercussions are crucial because even with the greatest efforts in mitigation, populations will continue to experience negative effects from climate change (Roberts, 2015).

Accounting for the temporal scale and understanding whether populations are being affected by slow-onset or rapid-onset environmental factors is an important consideration for migration, since the research shows that following rapid-onset events, there is a greater likelihood of the migrant returning to their residence when they are able to (UNCTAD, 2018, p.12). Slow-onset environmental migration is thought to produce permanent migrants as they may have lost their land to sea-level rise or no longer have a viable livelihood to return to, posing implications for migration governance (UNCTAD, 2018, p.12).

2.3 Current Frameworks and Theories of Environmental Migration

Classic theoretical frameworks of migration have neglected to adequately describe environmental migration, but it has since become a topic of interest due to the increased awareness of climate change and the escalation of environmental degradation since the 1990s. Key migration frameworks, such as Zelinsky's "The Hypothesis of the Mobility Transition" and Neo-classical Economic Theory neglect to mention migration because of factors pertaining to climate or the environment. In contrast, early academics speculated on the idea of people migrating to change their environmental landscape and in some cases the environment was foundational. This was evident when Ravenstein (1889) discussed an 'unattractive climate' in his laws of migration, or when Semple (1911) speculated that people would move to live in a more favorable climate. The role of the environment was a central feature in Friedrich Ratzel's *Anthropogeographie*, where he described population distribution and migration (Piguet, 2013).

Choosing to migrate to a more favorable climate is different from modern environmental migration, which is often viewed through a forced migration lens, referring to the displacement of people who have no other option but to leave. Some scholars have successfully used the new economics of labour migration (NELM) theory to explain migration as a livelihood diversification strategy when facing environmental stressors to reduce risk at the household level (Hunter, Luna & Norton, 2016). Environmental migration as a form of forced migration has been a topic of discussion since the 1990s, when the Intergovernmental Panel on Climate Change (IPCC) stated that climate change will displace millions of people in the near future (Piguet et al., 2011).

Situating an individual's environmental motivations within migration frameworks is difficult due to the challenges of understanding the complex motivations of why people move. Environmental motivations such as climate change or environmental degradation make up only one factor among several in understanding migration dynamics (Piguet et al., 2011; Waldinger, 2015). Migration is not due to one singular factor, and in the case of environmental migration is almost always the result of several converging factors, such as economic constraints, political contexts, and the social networks that migrants have formed (Piguet et al., 2011). More recently, academic literature identifies the environment as one of several drivers of migration, along with economic, political, social, and demographic drivers (Black et al., 2011; Foresight, 2011; Rigaud et al., 2018). Although in certain academic circles, debate still exists over the validity of the environment as a driver of migration and they instead only include the underlying social, economic, political, or demographic drivers (Cai et al., 2016, Carling & Collins, 2018; Piguet et al., 2011).

Further, the need to look past simplistic push-pull models of environmental migration, and incorporate greater context that includes "micro-level, meso-level, and macro-level interactions" has been acknowledged (Hunter et al., 2016, p. 377). This means, in addition to macro-level interactions (economic, political, social, and demographic), the meso-level and micro-level interactions should also be considered. Meso-level interactions can include social networks, costs associated with migration, legal or political frameworks and available technology (Black et al., 2011). Micro-level interactions include household characteristics such as age, wealth, ethnicity, language, etc. (Black et al., 2011). Although favourable in the past, looking at only push-pull models neglects to acknowledge the agency of the migrant, and views migrants as "objects which are passively pushed around by external 'push' factors such as poverty, demographic pressure, violent conflict or environmental degradation, analogous to the way physical objects are attracted or repelled by gravitational or electromagnetic forces" (Flahaux & De Haas, 2016, p. 4). Such considerations are also important as the development-migration nexus identifies that with increased development, increased migration often follows, and that middle-income countries are more likely to migrate when compared to the poorest countries, challenging the previous narrative that development will stifle migration flows (Flahaux & De Haas, 2016).

2.4 Internal Environmental Migration

Historically, environmental migration has been classified almost exclusively as internal migration, occurring from rural agriculture communities to urban city centers (Rigaud et al., 2018; Serdeczny et al., 2017). This type of migration has gained increasing attention as reports identify that the magnitude of people migrating could be substantial, with climate change

expecting to result in millions of internal migrants. When considering movements because of slow-onset environmental drivers, it is important to note that most displacement will occur within national borders (UNCHR, 2020).

In *Groundswell: Preparing for Internal Climate Migration* published by the World Bank Group, the authors used a model of future population distribution that included slow-onset impacts combined with different levels of climate and development scenarios. The authors identified that if emissions continue to rise, coupled with unequal development scenarios "[b]y 2050—in just three regions—climate change could force more than 143 million people to move within their countries" (Rigaud et al., 2018, p. xiv). Of these 143 million people, 85.7 million are expected to be from Sub-Sahara Africa, 40.5 million from South Asia and 17.5 million from Latin America (Rigaud et al., 2018, p. 110). It is important to consider that these numbers only represent three regions, and when looking at a global level, the potential for internal migration could be much higher.

Although there are no international governance systems regarding internal migration since the responsibility falls on the sovereign state (Martin, 2010), when it comes to environmental migration, global cooperation is required as those who face the greatest impacts, often contribute the least to climate change. As Rigaud et al. (2018, p. xxv) state "[i]nternal climate migration may be a reality but it doesn't have to be a crisis" and emphasize the importance of increasing mitigation measures such as reducing greenhouse gas emissions, including climate migration in development planning, and investing to improve and better understand how climate will impact internal migration.

2.5 Irregular Migration

Although internal migration has been the dominant narrative regarding climate change, recent reports looking at this connection identify that climate change could drive people to partake in cross-border migration (Rigaud et al., 2018). Multilateral environmental agreements and agencies are also commenting on this relationship, with the IPCC (2018) having identified with medium confidence that "climatic changes could amplify environmental migration across borders" (p. 180). In fact, some researchers have identified that international migration may be more common than previously documented or understood (Ayeb-Karlsson and Uy, 2022; Conrad Suso, 2023, forthcoming). In understanding an increase in international environmental migration, we must first understand irregular migration, since in many African contexts, migrating across borders would, in most cases, refer to irregular migration due to difficulties migrating in an official or legal capacity (Conrad Suso, 2019).

Irregular migration is the "[m]ovement of persons that takes place outside the laws, regulations, or international agreements governing the entry into or exit from the State of origin, transit or destination" (IOM, 2019, p. 114). Irregular migrants refer to a broad group of people, and for some, the concept of irregularity is fluid, and fluctuates as they navigate the migration system. Some may enter a country through irregular means and are designated as irregular at the onset of their arrival in the country, becoming an 'asylum seeker', while others may become irregular after staying in the country following an expired visa. Jacobsen, et al. (2021) identify various ways in which a migrant becomes irregular, summarizing irregular migrants as ". . . people who enter or dwell on state territory without formal authorisation, and comprise a wide range of

situations, including those who remain on state territory after having overstayed their visa, having had their residency revoked or asylum application rejected or never having applied for residency or asylum" (p.1).

Understanding irregular migration is crucial to migration governance as those who migrate irregularly often find themselves in precarious situations, risking their lives in attempt to reach the destination country. Migrants must traverse through several countries, navigating multiple border-crossings with varying governance and legal systems in order to negotiate their way to safety. Irregular migration often occurs through extensive migrant networks whereby people use human smugglers to gain access across borders (de Haas, 2008). In relying on human smugglers, migrants are placed in precarious situations and made vulnerable to the expectations and demands of the smuggler. Human smugglers can easily take advantage of the migrant by extorting them for more money than initially agreed upon, or inflicting bodily harm onto the migrants, both physical violence, and sexual or gender-based violence.

Between 2009 and 2017 over 2.2 million irregular migrants have been documented at the external borders of the European Union (Cottier & Salehyan, 2021). In particular, since 2015, increased migration from Africa and the Middle East into Europe have resulted in efforts to deter irregular migration. One of these efforts being implemented by European Union (EU) is working with non-member states to externalize policy, through border externalization (Geddes and Hadj-Abdou, 2018; Gaibazzi, Dünnwald & Bellagama, 2016). This process usually involves funding third-party countries that stop migration prior to reaching the EU border, notably in Libya. Externalizing policy and border externalization are problematic as they contribute to the framing

of migrants as criminals which not only contributes to the infringement on their fundamental rights, but poses grave consequences to their life (Maru, 2018). In Libya, extensive human rights violations are occurring against African migrants, especially those who find themselves in migration detention centres that are run by independent militia (Toaldo, 2015; Baldwin-Edwards & Lutterbeck, 2019). It is within Libya, and especially migration detention centres where migrants face deplorable conditions and endure beatings, torture, rape and even murder (OHCHR, 2016). Witnesses have told the United Nations Support Mission in Libya that both women and girls are taken away at night to be raped, beaten, and threatened with guns if they resist (OHCHR, 2016).

Gender is an important consideration in irregular migration given that female migrants face the same vulnerabilities of their male counterparts, but also face gender-based vulnerabilities such as gender-based violence (Freedman, 2016a; Freedman, 2016b; Freedman et al., 2023; Gerard & Pickering, 2014; Jiménez-Lasserrotte, 2020; OHCHR, 2016). Gender-based violence refers to "harmful acts directed at an individual based on their gender. It is rooted in gender inequality, the abuse of power and harmful norms" (UNHCR, 2021). In migrating irregularly, women are subjected to various forms of gender-based violence and experience greater mortality compared to their male counterparts (Pickering & Cochrane, 2012). In her research on asylum seekers attempting to reach Europe, Freedman (2016a) spoke with women who were raped, sexually assaulted, and injured by their smugglers. As Gerard and Pickering (2014) stated, "the price of passage may be rape" (p. 9). These precarious situations leave many women unable to continue their journey, being forced to return home or leaving them stranded in a transit country. Even for those who make it to their destination country, many women still face gender-based violence. As

Troisi et al. (2021, p.2) noted ". . . arrival in the asylum country doesn't guarantee an end to the violence, just the next stage".

Although, the link between climate change and irregular migration has gained traction in recent years, over a decade ago, Martin (2010) identified that climate change induced migration has the potential to pose challenges to the international system, and one challenge she identified was irregular migration. Despite academics speculating on the relationships between climate change and irregular migration for many years, there has been a lack of research-based case studies to support these claims, identifying a gap in the current literature that has not been adequately addressed.

2.6 Trapped Populations

What happens when people cannot migrate despite wishing to do so? In Carling's (2002) work, he describes involuntary immobility in relation to the aspirations and capabilities framework, where involuntary immobility is the aspiration to migrate without the capability to do so. Since migration is a costly, resource intensive endeavor, those who are the most vulnerable, facing deep and persistent poverty, often do not have the option to migrate, resulting in 'trapped' populations that are immobilized (Black & Collyer, 2014; Foresight, 2011; Rigaud, et al. 2018; Nawrotzki & DeWaard, 2018). As Black & Collyer (2014) point out, these populations are often overlooked:

> Those who are denied access to mobility entirely, whether through lack of various kinds of capital and/or through other constraints such as conflicts, hazards or policies, are likely to have a distinct set of vulnerabilities that are rarely acknowledged and hardly ever addressed (p. 54).

In relation to climate change, vulnerable populations often have a lower adaptive capacity, making it challenging to pursue available adaptation options, yet it is important to note that migration is often chosen as a last resort only when there are no other viable options (Rigaud et al., 2018). Nawrotzki & DeWaard (2018) distinguish vulnerability by stating that it is heterogenous, both with respect to the vulnerability of populations and vulnerability of places. Differential vulnerability exists as not everyone has the same capacity to be able to adapt to climate change (Conrad Suso, 2023, forthcoming). The differential vulnerability of populations is noted with those who are stricken with deep and persistent poverty and who, despite facing adverse conditions, do not have the means to adapt in-situ or the financial resources to migrate (Nawrotzki & DeWaard, 2018). Differential vulnerability of places also exists, whereby certain places are more vulnerable to becoming trapped than others. As Nawrotzki & DeWaard (2018) note “places characterized by concentrated poverty run the greatest risk of being immobility hotspots” (pp. 534-535).

Many countries in West Africa are susceptible to involuntary immobility due to deep and persistent poverty compounded with a lack of legal opportunities to migrate. In The Gambia, migration is culturally grounded and viewed as a rite of passage into adulthood (Conrad Suso, 2020). The inability to migrate poses significant consequences to the psychological and

emotional state of many, and in The Gambia, being unable to fulfill their rite of passage is creating a new emotional state known as ‘napse’. Conrad Suso (2022) describes this syndrome:

> Confronted with involuntary immobility, many Gambian youth are experiencing something colloquially referred to as the ‘nerves syndrome’ or napse in the local vernacular. ‘Nerves’ is part of a larger vocabulary through which youth speak of their frustrated aspirations of migrating and progressing socially. . . Rather than being a medical ‘syndrome’ in the traditional sense of the word, Gambians use this term to express their sense of hopelessness that often results from being rendered immobile. Youth who want to travel so desperately that they can’t think of much else are referred to as having the ‘nerves syndrome’ or having ‘nerves’ or being napse (p.1919).

Although populations can become immobilized without the ability to migrate, people who undertake migration can also end up becoming trapped throughout their migration journey. Being trapped while migrating is most notable with camps for refugees or internally displaced people (Black & Collyer, 2014). To properly address and identify trapped populations, differentiating between those who choose to stay and those who are involuntarily immobilized is necessary to understand where trapped populations are developing to avoid climate change induced humanitarian emergencies (Black & Collyer, 2014; Nawrotzki & DeWaard, 2018). Most importantly, recognition needs to be given to trapped populations as “[t]he problem is not people being in the wrong place in relation to climate change or other crises. The problem is people being in the wrong place and being unable to do anything about it” (Black & Collyer, 2014, p.55).

2.7 Environmental Refugees and Current Protection Frameworks

As it stands, refugee, environmental and human rights law do not provide for protection for those who have been displaced or face migration due to climate changes (Nishimura, 2015). There are no international agreements to protect this group of people and debate exists as to whether they should fall under existing international refugee law, environmental law, or if new international frameworks are needed (Nishimura, 2015; Gemenne & Blochier, 2017). The reality of climate change means that people are going to migrate as sea-levels continue to rise and former livelihoods can no longer be pursued, and so far, there has been a lack of planning to accommodate these new migrants (Nishimura, 2015). Although often used in popular media, the term environmental refugee is legally contradictory. The term refugee has been defined and includes legally binding standards for the treatment of refugees in the United Nations Convention on the Status of Refugees, 1951. The United Nations Convention of the Status of Refugees was adopted to deal with the international refugee problem prior to 1951, predominately for those seeking refuge following World War II. With the realization that refugee situations unrelated to those that occurred prior to 1951 were occurring in other regions of the world, the convention was amended in 1967. These amendments led to the United Nations Refugee Protocol, which included the removal of the temporal and geographic limitations (UNCHR, 2020).

Since there are no legally binding protections for those who are displaced due to environmental changes, many people have opted to refer to this group as environmentally displaced persons (Williams, 2008) or asylum seekers. Although academics and policymakers alike have been

calling for the protection of those displaced by climate change for over a decade (Williams, 2008), there is little consensus on how to classify or what to do with those displaced by environmental factors (Nishimura, 2015; McAdam, 2011). One framework attempting to provide protection for environmental migrants is *The Global Compact for Safe, Orderly and Regular Migration (GCM).* This framework is a non-legally binding framework that ". . . fosters international cooperation among all relevant actors on migration, acknowledging that no State can address migration alone, and upholds the sovereignty of States and their obligations under international law." (GCM, 2018, p.2). The GCM identifies current issues in international migration and makes policy recommendations about how the issues should be addressed. The GMC addresses climate migrants predominately in *Objective 2: Minimize the adverse drivers and structural factors that compel people to leave*. In this objective, the GMC focuses on, and provides recommendations regarding creating sustainable livelihoods in-situ to prevent irregular migration:

> We commit to create conducive political, economic, social and environmental conditions for people to lead peaceful, productive and sustainable lives in their own country and to fulfil their personal aspirations, while ensuring that desperation and deteriorating environments do not compel them to seek a livelihood elsewhere through irregular migration (GCM, 2018, p. 8).

For those who can no longer adapt to climate change, such as small island developing states, who will be forced to relocate as their land disappears, the GCM recommends planned relocation and visa options (GMC, 2018). However, since the GCM is not legally binding, it could result in

little recourse without active government participation in migration management (Chazalnoël & Ionesco, 2020).

In *Narrating an ideal migration world? An analysis of the Global Compact for Safe, Orderly and Regular Migration*, Pécoud (2021, p.27) criticizes the GMC, stating that "[b]y explaining how migration should take place and how states should govern it, the GCM portrays an ideal migration world". Additionally, Pécoud (2021) argues that differing worldviews and interests of governments and stakeholders creates internal contradictions creating a "depoliticised document . . . in a political language that hides the dilemmas raised by migration politics" (p. 1). Prior to the implementation of the GCM, it was for similar reasons that McAdam (2011) argued against a new treaty related to environmentally displaced people:

> Rather, it queries the utility – and, importantly, the policy consequences – of pinning 'solutions' to climate change-related displacement on a multilateral instrument, in light of the likely nature of movement, the desires of affected communities, and the fact that a treaty will not, without wide ratification and implementation, 'solve' the humanitarian issue (p. 2).

In January 2020, the United Nations ruled in a landmark decision that climate 'refugees' could not be forced to return home. Although not legally binding, this decision sets a precedent and will result in the member state being in breach of its human rights obligations while also affirming environmental factors as a valid claim to refugee status (Godin, 2020).

2.8 Adaptive Migration

Environmental migration poses implications for the governance of both migration and climate change adaptation. As climate change worsens and more people are expected to become mobile, an understanding of environmental migration is crucial to identify future challenges for human development and planning (Rigaud, et al., 2018) and the threat of trapping vulnerable populations leading to humanitarian crises (Black & Collyer, 2014). So far, there has been a lack of planning to accommodate these new migrants and legal gaps exist in the protection of environmental migrants since those displaced by climate-change are not protected under refugee, environmental, or human rights law (Nishimura, 2015). One of the challenges in facilitating the safe movement of environmental migrants is how they are framed in political discourse. Overwhelming, environmental migrants are framed as passive victims being controlled by external factors or as security threats to potential destination countries. When framing the migrants as passive victims, it perpetuates the 'white savior' trope that migrants need 'saving' and neglects to acknowledge the tremendous agency they demonstrate as they navigate their decisions to adapt in-situ, migrate, or to stay.

With alarmist projections stating that climate change will cause millions of 'environmental refugees' fleeing their home countries in search of safety, the idea of the migrant as a security threat has also become dominant in popular discourse and media. Such discourses have resulted in migrants being framed as criminals in destination countries (IOM, 2020), and is problematic as it causes the general population to neglect the fundamental human rights of the migrant and their right to seek asylum (Maru, 2018).

In the face of neoliberalist policies that frame migrants as a security threat or criminals, policymakers and researchers have proposed an alternative way of looking at migration. Migration as adaptation, or adaptive migration, is a discourse that has developed since the 2000s and proposes migration as a valid adaptation strategy in the face of increasing environmental risks (McLeman & Smit, 2006; Vinke et al., 2020). By framing migration as an adaptation strategy, it is something that can be governed, facilitated by experts and policy makers and can be beneficial to would-be migrants. Recognizing migration as an adaptation strategy can provide livelihood diversification strategies for those who can no longer adapt in-situ, provide additional sources of income, and spread and reduce risk to the would-be migrant and their families (Afifi et al., 2016; Ober & Sakdapolrak, 2017; Vinke et al., 2020). Migration as adaptation is a pro-active strategy that acknowledges the agency of migrants and refutes narratives that portray them simply as passive victims requiring humanitarian assistance (Lietaer & Durand-Delacre, 2021). Due to these benefits, this framing has been proposed in national agreements and doctrines of the United Nations, including the Cancún Adaptation Framework, the Sendai Framework for Disaster Risk Reduction, and the Global Compact for Migration (Vinke et al., 2020). The Foresight Report published in 2011 considers the connection between migration in the context of environmental change stating:

> Migration can represent a 'transformational' adaptation to environmental change, and in many cases will be an extremely effective way to build long-term resilience. International policy should aim to ensure that migration occurs in a way which maximises benefits to the individual, and both source and destination communities (p.10).

Nevertheless, it is important to acknowledge that migration as adaptation does not inherently lead to an increase in adaptive capacity but can equally create new vulnerabilities for migrants. Such vulnerabilities include little or no improvements in well-being or facing new challenges altogether (Vinke et al., 2020). Government-led planned relocation efforts may result in short-term benefits but also have the potential to lead to negative consequences, such as the loss of cultural heritage and identity (Vinke et al., 2020).

With the rise of migration as adaptation in academic and policy discourses, critics have also expressed their concerns. One of the most prominent critiques of adaptive migration is the impracticality of it due to the coordination and resources it would require. As Lietaer & Durand-Delcre (2021) noted "[g]iven the current lack of coordination and resources available to those espousing the minority discourse, it seems unlikely that they will make inroads in bringing about a properly transformative approach to 'migration as adaptation' based in greater freedom of movement" (p.18). Despite migration as adaptation becoming a new paradigm in face of neoliberal policies, Felli & Castree (2012, p.1) argue that the very process of migrating to adapt to climate change reinforces the neoliberal agenda, enabling people to become "ever more the subjects of capitalist market relations" that "are ultimately seen as entrepreneurial agents making the most opportunities in the global labour market" (Lietaer & Durand-Delacre, 2021, p.12). These considerations are crucial as it avoids acknowledging the role of wealthy countries in exacerbating climate change and the impacts that will be disproportionately felt by those who have contributed the least, despite being the ones who will face the gravest impacts and consequences. McLeman (2016) responds to this critique by noting most human migration,

regardless of motivation, environmental or not, would perpetuate neoliberalism and that it would be challenging or near impossible to avoid any notions of it.

While many of those critiquing migration as adaptation have made valid arguments and point out serious shortcomings as an unrealistic or idealistic policy, the reality is that mobility will be a required climate change adaptation strategy. As those located on small island developing states will be forced to relocate as the adjacent ocean waters continue to rise and their ancestral lands are returned to the sea, it will become a necessity for the global community to find a solution collectively (Storlazzi et al., 2018). But what does this mean for those who are not on an island, whose land is not disappearing? What does it mean for countries, such those in West Africa, who are facing some of the worst consequences of climate change, yet who often do not receive the same response from the global community because their land remains, despite being uninhabitable (Vinke et al., 2020). Although islands in the South Pacific are often viewed as the face of climate migration, it is important to recognise that adaptive migration may be equally required in countries who are not only impacted by sea level rise. Regardless of location, Warner et al. (2015, p.8) note that "[w]hen movement cannot be avoided, adaptation measures can help people to move voluntarily and with dignity long before a crisis situation occurs". This statement is not only in advocacy for adaptive migration but also addresses mitigating the potential development of trapped populations.

Adaptive migration may be viewed by many as an idealistic policy that will be challenging to implement due to its inherent need for global cooperation, but the reality is that at some point it must be implemented. Even with the greatest mitigation efforts, there will still be countries

succumbing to sea-level rise or facing severe food insecurity due to desertification. As the lands people once inhabited become uninhabitable, they will have no option but to move. This sentiment was echoed by McLeman (2016), who stated:

> That said, no amount of competency and benevolence at the level of the state will entirely prevent undesirable environmental migration in the future. For example, given the inability and unwillingness of the global community to make meaningful reductions in GHG emissions, it is a question of when, not if, residents of atolls in Kiribati will need to be relocated because of rising sea levels, coastal erosion, and groundwater salinization. Adaptation through migration will at that point become the only option, full stop (p.223).

Although environmental migration has been a debated discussion in academia and policy circles alike, research shows that projected climate change scenarios are expected to internally mobilize millions of people. With climate change worsening and a lack of available local opportunities, it will become equally necessary for people to pursue international migration, often through irregular means. With gaps in existing legal protections for environmental migrants, legally binding frameworks are needed to hold countries accountable and facilitate migration with dignity as a valid adaptation strategy to prevent humanitarian crises by trapping populations.

Chapter 3: Environmental Migration in West Africa

3.1 Environmental Migration in West Africa

The IPCC has identified that African countries will be disproportionately affected by the environmental impacts of climate change, such as sea level rise and desertification, and will face a direct risk to food security, water supply and economic livelihoods with global warming of just 1.5°C to 2°C (2018, 2022). In Sub-Saharan Africa, climate change is expected to have a significant impact on rainfall variability and cause an increase in extreme heat events (Serdeczny et al., 2017). In West Africa, these projections will have a severe impact on food production, in part because of agricultural degradation leading to reduced crop yields. but the region will also experience a reduction in ocean productivity (Serdeczny et al., 2017), negatively impacting fish catches.

With increased pressure and acceleration from changing systems, migration is becoming a more common environmental adaptation method (Warner et al., 2009; Warner et al., 2015; McLeman, 2016). An important consideration in the West African context is adaptive capacity, the "ability of systems, institutions, humans, and other organisms to adjust to potential damage, take advantage of opportunities, and respond to consequences of climate impacts (Rigaud et al., 2018, p. vii). Although both developed and developing countries will face risks from the effects of climate change, their adaptive capacities in addressing these risks greatly differ (Roberts, 2015). Increased environmental stress is expected to lead to both internal and international migration and could result in as many as 85.7 million people internally displaced in Sub-Saharan Africa

(Rigaud et al., 2018). Of this region, West Africa will likely produce the greatest numbers of climate migrants, as Rigaud et al. (2018) note that "West Africa has the highest levels and percentages of climate migrants, suggesting that climate impacts will have a particularly pronounced impact on migration in a region that has long been a bellwether of climate-related migration" (p.108).

Research on environmental migration in West Africa has been taking place since the 1980s, focusing on the Sahel drought that plagued the region (Findley, 1994), however, most work has occurred since the 2000s. Although methodologies are wide-ranging and there is not a consistent method of studying environmental migration (Borderon et al., 2019), it is important to understand what has been studied and what geographical extent has been covered. Despite these incongruencies, McLeman & Gemenne (2018) call for more studies to be conducted using a wide array of methodologies to add to the richness of the available data. Below is a synthesis of the research on several countries in West Africa where multiple empirical case studies have been conducted, looking at the link between environmental changes and migration. These case studies cover most of the six families of research methods identified by Piguet (2010), including: ecological inference based on area characteristics, sample surveys, time series, multi-level analyses, agent-based modelling, and qualitative and ethnographic studies. It should be noted that there are many countries and regions where little research has been conducted, if at all, as is the case in The Gambia.

3.1.1 Mali

Environmental migration has been studied in Mali since the early 1990s by several different researchers using a variety of methodologies. Migration in Mali has a long history, with population movements both within the country and across borders being practiced. Seasonal migration to other countries in West Africa and circular migration practiced by pastoralists is common. De Bruijn & van Dijk (2003) emphasized this point by saying that "[m]obility has always been part of the cultural repertoire for responding to varying and often insecure and risky environmental conditions" (p.57). Similarly, Grace et al. (2018) emphasized that out-migration is a cultural norm in West Africa and have noted that it is more uncommon for an individual to reach their 20th birthday having not left their village at least once prior. In Mali, the link between environmental changes and migration has been studied using both qualitative and quantitative approaches, and in some cases, a combination of both. Qualitative methods predominantly include interviews (van der Land and Hummel, 2013; Hummel, 2016; Romankiewicz & Doevenspeck, 2015), while quantitative methods include time series and ecological inference based on area characteristics analyses (Findley, 1994; Grace et al., 2018), and surveys (van der Land and Hummel, 2013; Hummel, 2016).

In one of the earliest studies looking at environmental migration in West Africa, Findley (1994) analyzed migration patterns during the 1983-1985 drought using surveys that looked at migration, family, and community characteristics before the drought in 1982, and again after the drought in 1989, encompassing both Mali and Senegal. The author determined that the drought did not increase migration during this period, which was most likely attributed to economic

constraints, resulting in trapped populations described earlier in this thesis. Although migration may not have increased, the author noted that the majority of families did rely on migration to survive the drought and speculated it may not have increased due to already existing expansive migrant networks who were able to send remittances. Although overall migration did not increase, the proportion of female migrants increased, and the type of migration shifted to circular migration, "a form of migration in which people repeatedly move back and forth between two or more countries" (IOM, 2019, p. 27). Most migrated internally or to nearby African countries but a small proportion left for France.

The research by Grace et al. (2018) aimed to build on the research conducted by Findley (1994) by using a more detailed time series of out-migration and rainfall data. In contrast to Findley's (1994) work, this study focused specifically on permanent migration, and only looked at migration journeys longer than three months to avoid seasonal or circular migrations. Similarly, Grace et al. (2018) found no correlation between rainfall and out-migration for men or women, and that the out-migration behaviour does not change in failures or variability in the rainy season. The authors proposed several explanations as to why this might be. The authors posited that surrounding villages would also be experiencing similar climatic conditions, so migrating to pursue similar economic livelihoods may not be a viable option. Another explanation was in times of poor rain conditions, it would also be a resource strained time, indicating that families do not have the means to support someone migrating. This argument supports the development-migration nexus discussed earlier and highlights the threat of populations becoming trapped. The last explanation that Grace et al. (2018) provided was related to the idea of climate being a push factor for migration and that in places where circular migration is the norm, people may choose

to stay put in times of stress as opposed to leaving. Due to discrepancies in their research, Grace et al. (2018) highlighted the need for frameworks to be re-examined in communities who practice circular migration.

In their study in Mali, van der Land & Hummel (2013) aimed to identify the role of education in environmentally induced migration in both Mali and Senegal. The authors focused on two different spatial levels by comparing two rural villages to their respective capital cities, representing rural to urban migration patterns. van der Land & Hummel (2013) conducted preliminary interviews and participant observation in each location and returned to conduct surveys and more interviews. The authors found that increased education creates a reduction in vulnerability to environmental stressors since those with more education were not dependent on jobs that are sensitive to environmental changes such as farming, and therefore increased their adaptive capacity. The authors did not find connections between level of education and migration experiences, but did between education and migration motivations. Those with higher levels of education identified education and training as a motive for migration, while those with lower education often identified economic opportunities such as jobs.

Romankiewicz & Martin Doevenspeck (2015) took a qualitative approach to looking at migration in Mali, aiming to bring in a local perspective on migration that accounts for cultural values, migrants' perceptions of environmental change and their experiences with migration to move past most empirical case studies that are "deeply entrenched in static push-pull frameworks and tend to reproduce simplistic causal relationships" (p.79). In doing this, the authors aimed to understand migration from a local perspective without asking about the link to climate change. In

Bandiagara, Mali, migration was most often found to be temporary and circular, both within the country, but also abroad. Migration is viewed as a 'rite of passage' into adulthood and is integral in certain cultures, with the location and duration being negotiated at the household level. Young adults identified a lack of opportunities for income as a main migration motivator, but educational pursuits and seasonal labour migration when harvests were bad were also noted.

3.1.2 Ghana

In comparison to other West African countries, researchers have studied the link between the environment and migration quite extensively in Ghana, extrapolating data based on historical records and also conducting modern studies. Like Mali, those studying the connection have used a variety of research methods, including quantitative, qualitative and in some cases a combination of both. Studies focused mostly on quantitative methods, included surveys (Abu et al., 2014; Rademacher-Schulz et al., 2014; Cattaneo & Massetti, 2015; van der Geest et al., 2010; Codjoe et al., 2017), time-series analyses (van der Geest, 2011) and ecological inference based on area characteristics (van der Geest, 2011; van der Geest et al., 2010). Qualitative research was conducted through interviews (Carr, 2005; Rademacher-Schulz et al., 2014; Codjoe et al., 2017) and in one case, an asset-based vulnerability and adaptation (AVA) framework (Afriyie et al., 2018).

The research conducted by van der Geest et al. (2010) and van der Geest (2011) combine population census data and ecological characteristics based on meteorological data, remote sensing data and agricultural statistics to look at how internal migration is occurring in Ghana.

The authors found that there is a link between the environment and internal migration in Ghana. In the first study, van der Geest et al. (2010) found environmental characteristics led to migration from northern Ghana to the middle belt and the cocoa frontier settlement in the south but did not contribute to migration flows to Accra, the capital city. The authors found that migration flows were more so related to rural population densities and being able to access resources was more important than their scarcity or abundance. Continuing and elaborating on the research, van der Geest (2011) noted that scarcity due to the unequal access of natural resources was more important in explaining migration flows from north to south rather than the degradation of resources, and that out-migration from northern Ghana was lower during the period with the greatest environmental stress. Although van der Geest (2011) notes that the reduced migration attributed to political and macro-economic factors were more dominant than environmental during this time, it is possible that micro-economic factors at the household level contributed to trapped populations and involuntary immobility. In their research in Ghana and Nigeria, Cattaneo & Massetti (2015) combined environmental data with household surveys and found that migration as an adaptation strategy may not be possible due to the potential of trapped populations in resource strained times. In their research, the authors identified climate positively influenced migration in farm households, however the same was not found for non-farm households. The authors concluded that climate influences migration by its affect on the productivity of agriculture, and they speculated that in times when agricultural productivity is greatest, households can afford to migrate, however the inverse is also true, creating the potential for poverty traps and involuntary immobility. On the contrary to other quantitative research, Abu et al. (2014) did not find a significant relationship between environmental factors and migration in the forest savannah transition zone in Ghana. Using statistical analysis and survey data, the

authors found that although climate-related events were identified as the communities' most pressing stressor, intentions to migrate were more often attributed to socio-demographic factors.

Qualitative research began in 2005, when Carr (2005) conducted interviews with three communities in Ghana's Central Region. Using a Foucauldian notion of power, the authors found that environmental reasons alone were not sufficient to result in migration and must be considered in the broader context of political and socio-economic drivers. The authors do note that the environment cannot be excluded in migration decision making as it is a "key element of any local power/knowledge and, therefore, always impacts migration decisions" (p.944). On a different note, Rademacher-Schulz et al. (2014) looked at seasonal migration in Northern Ghana and whether the migration is being used as a coping mechanism or an adaptation strategy. The authors found an increase of migration was occurring during the rainy season, in contrast to the typical dry-season migration. Most migrants were forced to migrate as a coping mechanism to ensure food security as the area faces increased variability in rainfall. Rademacher-Schulz et al. (2014) note that this could pose further risks, including increased food security and a greater occurrence of poor harvests leading to increased vulnerability. Although Rademacher-Schulz et al. (2014) framed migration during the rainy season as contrary to the norm, in their study on asset vulnerability and adaptation in the face of extreme weather events in rural Ghana, Afriyie et al. (2016), reported that communities would often migrate during the rainy season. The communities identified migration as an adaptation strategy during the rainy season in search of different economic opportunities to support their families when faced with rampant flooding.

Codjoe et al. (2017) looked at the relationship between the environment and migration in Ghana's Volta River Delta in three communities, all situated on the coast using different quantitative and qualitative approaches. The authors used a combination of household surveys and focus groups to look at the migration process and available livelihood options to determine if a relationship exists between changing sea-levels and people's intention to migrate. The community members stated that they have seen substantial outmigration from these communities primarily due to two reasons; lower fish catches and the destruction of land sites, the location where fishermen keep their boats (Codjoe et al., 2017). People who relied on fisheries for their livelihood are thought to pursue both internal migration and cross-border migration. Internal migration was usually to other fishing communities where there was a harbor and adequate landing space for boats to be stored, while cross-border migration occurred mostly to Nigeria, Cameroon and Togo. The authors also conducted statistical analyses to empirically relate experiences with sea flooding and intentions to migrate. Despite the sentiment that environmental migration is occurring in Ghana, the results from the multivariate test showed that sea-flooding and intention to migrate were not statistically significant. Codjoe et al. (2017) examined the discrepancies between their qualitative and quantitative research and proposed that the environment is likely not a primary cause of out-migration, and other factors such as economic and political, might have a stronger influence on decisions to migrate.

3.1.3 Burkina Faso

In Burkina Faso, much of the research on environmental migration is related to modelling (Henry, Boyle & Lambin, 2003; Henry, Schoumaker & Beauchemin, 2004; De Longueville, Zu

& Henry, 2019). One of the first studies looking at environmental migration was conducted by Henry et al. (2003) and used a statistical modelling approach to understand the varying importance of socio-demographic and biophysical variables of inter-provincial migration. More specifically, the authors considered how rainfall and soil degradation varied between provinces, and if this is enough for the citizens to migrate to the province with favorable biophysical features. One of the reasons for including environmental factors stems from their intended purpose of using the data for planning policies, whereby the receiving communities will be able to anticipate flows and influxes of people. The authors identified that emigration from the southern provinces that have higher amounts and more regular rainfall is more greatly associated with socio-demographic variables compared to biophysical. In contrast, emigration in the drier northern provinces with more variable rainfall was associated more-so by the biophysical variables over the socio-demographic variables. When considering the other models, Henry et al. (2003) identified that including biophysical factors for the northern provinces provided more accurate modelling of migration flows, however this was not consistent in the southern provinces where socio-demographic factors constitute the main regulating factor of migration flows.

Following this study, Henry et al. (2004) used multilevel longitudinal data and event history to look at the risk of the first village departure, or first out-migration from their home village after the age of 15. The authors found that people who were from the drier regions of Burkina Faso were more likely to participate in temporary and permanent migration to other rural regions when compared to those who were from areas with more rainfall and that these moves were mostly a short-term strategy to diversify income (Henry et al., 2004). Similarly, De Longueville et al. (2019) studied Burkina Faso using a modelling approach to look at how different drivers of

migration: socio-economic, environmental, and individual interact with each other and contribute to migration, building on the work conducted by Henry et al. (2004).

Using ecological variables and a global scale cluster analysis, Neumann et al. (2015) looked at the role of the environment on migration at a macro-scale. The authors found that environmental factors played a major role in migration in Burkina Faso and that other rural communities and urban areas acted as a pull factor, while land degradation acted as a push factor. In their study on Burkina Faso, De Longueville et al. (2019) attempted to understand if environmental changes have a direct effect on why people in Burkina Faso are choosing to migrate or if it is acting as an indirect effect, through the socio-economic and individual drivers. The authors found that environmental drivers act as a direct effect initiating short term migration, but the indirect effect was reduced long-term migration and migration abroad as poor environmental conditions impact the socio-economic situation of the community, limiting the resources available to migrate.

3.1.4 Senegal

Due to the proximity of the two countries, several authors who conducted research on or in Mali also included Senegal in their analyses (Findley, 1994; Hummel 2016; van der Land & Hummel, 2013; Romankiewicz & Doevenspeck, 2015). In these studies, the authors did not distinguish any majoring differing results between Mali and Senegal, except for Romankiewicz & Doevenspeck (2015) who conducted a qualitative ethnographic study. In Senegal, Romankiewicz & Doevenspeck (2015) noted that migration was characterised by rural migration to cities, primarily to Dakar, followed by international migration to Europe. These findings contrasted

with Mali, where there was a lesser focus on international migration. Despite this difference, intent to migrate was found to be based on the same reasoning: economic opportunities and education. In Senegal, the participants made greater connections between migration and environmental and climatic aspects, noting that traditional seasonal migration has led to permanent migration in the face of environmental constraints, such as drought. The authors did identify that their data did not show a causal relationship between international migration and climatic factors, and that instead it related to internal migration.

Zickgraf et al. (2016) looked at how communities perceive environmental changes and what that means for mobility in two Senegalese case studies. In the first study, the researchers conducted in-depth interviews and focus groups with community members in fishing communities in Guet Ndar. The authors identified that environmental degradation is already having a significant impact on internal and international mobility in Saint-Louis, yet migration patterns in Guet Ndarian were varied as fishermen could move up the coast, continuing to pursue their livelihoods. The authors also found that only the most successful fishermen could relocate their families within Senegal, highlighting the importance of government and policy interventions such as planned relocation that assist vulnerable populations and prevent immobility. In limiting international migration, the authors note the importance of developing the fishery sector through community identified solutions that would make it more prosperous by preventing unsustainable or harmful fishing practices and investing in preservation and processing factories.
Zickgraf et al. (2016) call for better integrated solutions at the local, regional, and national level due to the interrelated nature of mobility as a response to the environment.

In the second study, Zickgraf et al. (2016) looked how agricultural degradation, combined with large-scale land transactions are contributing to and changing migratory responses in Saint-Louis, Senegal. The importance of agriculture is highlighted, since over half of the population relies on it to pursue their livelihoods, yet land availability has decreased due to growing land acquisition from foreign and national investments (Zickgraf et al., 2016). The authors conducted semi-structured interviews and focus groups to gather insights from rural populations and found that although rural emigration was historically a common livelihood diversification strategy, new agribusinesses have contributed to changes in the traditional migratory processes. Initially there was an influx of people to the agribusinesses but that shortly changed due to low wages, few employment opportunities, and a lack of promised infrastructure development causing locals to continue to leave for Mauritania, Dakar, and the city of Saint-Louis. The increase in agribusiness has also affected pastoralists who now must travel further distances for grazing land and are becoming increasingly immobile due to the boundaries created by the businesses. The authors note that the presence of new economic opportunities through agribusiness did not reduce rural migration as thought. Zickgraf et al. (2016) stress needing a better understanding of migration flows to understand how climate change will affect the already existing vulnerabilities in communities so that planning can accommodate growing influxes of people to receiving areas.

3.2 Summary

The above case studies represent the varied types of research and methodologies researchers have employed in studying the environment-migration nexus in West Africa. Due to this varied nature, groupings and syntheses are not easily conducted. Although the methodologies highlight

the many categories of research that exist in environmental migration set forth by Piguet (2010), results are inconsistent on whether environmental changes and stressors are causing migration both internally within the countries, and across borders. The research shows that mobility is most often highly context specific and driven by multiple compounding factors, seldom reduced to a singular factor. In addition, there are still many countries in West Africa, such as The Gambia, where empirical research has not been conducted. With McLeman & Gemenne (2018) calling for more studies on environmental migration to add to the richness of the available data, further case studies are needed in countries with limited or no empirical case studies.

What the research does highlight are a few important considerations and realizations in this area. When facing environmental constraints, it is likely that people will have scarcer resources, and the ability to migrate regardless of intentions becomes a more challenging endeavor. This correlates to the development-migration nexus that identifies with increased development often follows increased migration (Flahaux & De Haas, 2016). The inverse is also true, in times of lower development when resources are scarce, less migration will follow as people will not have the means to undertake the journey. It has been well-established that many communities in West Africa rely on circular migration to address income shortages especially in times of poor harvests (Findley, 1994; De Bruijn & van Dijk, 2003; Romankiewicz & Martin Doevenspeck; 2015; Rademacher-Schulz et al., 2014). Considering this, several authors cautioned about the possibility of involuntary immobility resulting in trapped populations (Cattaneo & Massetti, 2015; Zickgraf et al., 2016; Grace et al., 2018; Findley 1994). When facing resource constrained times without the capability to migrate, the ability to provide adequate nutrition and basic

necessities becomes challenging and can create precarious situations that have the potential to result in humanitarian crises if not properly addressed through policy interventions.

Further, in looking at the data used, many studies are based on simplistic push-pull factors of migration, especially the quantitative research. Studies based on ecological inferences and time series data in particular attempt to link changes in weather, most commonly precipitation, or vegetation cover to population movements. Without additional data sources, the authors are attempting to link migration to a singular push factor, the environment. Calls have been made to look past simplistic push-pull models of migration (Hunter et al., 2016), acknowledging that migrants display tremendous agency in formulating their migration decisions. Scholars situate the environment as only one of several converging drivers of migration, and in acknowledging an individual's aspirations, economic, political, social, and demographic factors must also be considered (Black et al., 2011; Foresight, 2011; Rigaud et al., 2018).

Lastly, most of the case studies above looked at environmental migration with respect to internal or regional migration. This is aligned with the current research on the environmental migration nexus, noting that environmental change will mostly result in short-distance, internal migrants (Rigaud et al. 2018). Despite this, it is important to understand migration at various scales. Studies have identified that environmental migration proceeds as a chain event, originating with rural to urban migration and eventually progressing to international migration (Alscher, 2011). With most countries noting the contribution of environmental factors to internal migration, it is important to establish migration trends as it could have implications for international migration in the future, if not already.

Chapter 4: Policy Analysis

4.1 Introduction

With climate change worsening, adaptation measures are needed with increasing urgency to support communities at the local level in dealing with the threats and constraints caused by it. Researchers, institutional organizations, and governments alike are identifying that people will move because of climate change. Despite this, many climate change adaptation policies neglect to address migration in any meaningful way, especially regarding international migration. In part, difficulties in addressing international migration as a solution to climate change stems from the multijurisdictional nature of migration. In this regard, countries could have policies relating to migration as an adaptation strategy but without international cooperation or bilateral agreements, solutions provided in the policy will never come to fruition. Researchers have identified that climate change policies can have an important role in facilitating migration as adaptation (McLeman & Smit, 2006; Vinke et al., 2020; Warner et al., 2015), that it is essential to effective implementation (Warner et al., 2015), and could be an initial and crucial step to ensuring vulnerable groups of people can gain protection under international frameworks (Nishimura, 2015). Despite these claims, facilitating migration as adaptation leaves questions that remain unanswered, specifically, who should be responsible for implementing the policy, and how should the policy be implemented?

In addressing the first question, many have pointed to the United Nations Framework Convention on Climate Change (UNFCCC) (Warner et al., 2015; McLeman, 2016). Although migration was a theme in the National Adaptation Plans of Actions (NAPAs) developed by the

UNFCCC, it was generally framed as a maladaptive practice and something to be discouraged (Warner et al., 2015). This narrative has shifted in more recent years, with the Cancun Adaptation Framework identifying migration as a valid adaptation strategy to climate change. Under Section II. Enhanced Action on Adaptation, Article 14, the framework invites parties to enhance action on adaptation through several actions, one of these actions addresses migration directly, where parties are recommended to undertake: "(f) Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels. . ." (UNFCCC, 2011). For the second question, Lietaer & Durand-Delacre (2021) point out the need to understand how migration as adaptation fits within a national context, and if it has already influenced on-the-ground practices:

> We argue that more critical studies of how the migration as adaptation policy ideal translates to national contexts would be useful. They offer opportunities to assess the impact of the policy ideal – primarily generated and propagated in Western academic and policy discourses – in national development contexts. Has it influenced the discourses and practices of development actors tasked with designing and implementing projects 'on the ground'? (p.12)

Both considerations identified by Lietaer & Durand-Delacre (2021) are necessary to understand prior to attempting to implement migration as adaptation through policies.

4.2 Climate Change Policies

Climate change policies focus broadly on two main themes, mitigation, adaptation, or a combination of both. Mitigation is "[a] human intervention to reduce emissions or enhance the sinks of greenhouse gases", (IPCC, 2021). In the context of climate policy, mitigation is usually referred to as mitigation measures, which are "technologies, processes or practices that contribute to mitigation, for example renewable energy technologies, waste minimisation processes, and public transport commuting practices." (IPCC, 2021). Adaptation is "the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects" (IPCC, 2021).

Many national climate change polices of West African countries are developed in part with international organizations, notably, the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC hosts Conference of the Parties (COP), the decision-making body of the Convention, where "they review the implementation of the Convention and any other legal instruments that the COP adopts and take decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements" (UNFCCC, n.d.a). Of relevance to this research is COP 16 in Cancun, Mexico (2010) and COP 21 in Paris, France (2015).

At COP 16, the Cancún Adaptation Framework (CAF) was established, which included the national adaptation plan (NAP) process (UNFCCC, 2022). The NAP process facilitates medium-

and long-term identification and planning for climate change in developing countries. The UNFCCC describes the process as a "continuous, progressive and iterative process, it follows a country-driven, gender-sensitive, participatory and fully transparent approach in adaptation planning" (UNFCCC, 2022, p.4). Nationally Determined Contributions were established at COP 21, also known as the Paris Agreement. Nationally Determined Contributions target mitigation, where each party is required to "prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions" (UNFCCC, n.d.b). Although focused on mitigation, NDCs now also include a section addressing adaptation measures. In addition to NAPs and NDCs, many government and institutional bodies have policies that relate to climate change adaptation, though the effectiveness of these policies is still largely unknown (Gussmann & Hinkel, 2021), and in the case of externally funded policies, there has been limited discourse analyses on these documents, specifically NDCs (Mills-Novoa & Liverman, 2019).

Lastly, an important consideration in looking at national climate change policies is the source of funding. A critical look of the policies' funding source was conducted to identify potential forms of influence from external funding sources. With most of the policies being National Adaptation Plans (NAPs) or Nationally Determined Contributions (NDCs), the funding to create and implement the plans are based largely on external funds from international contributors, such as the United Nations Development Programme (UNDP) or the United Nations Framework Convention on Climate Change's (UNFCCC) Green Climate Fund (GCF). The Green Climate Fund is the world's largest climate fund to support developing countries in implementing

solutions targeting both mitigation and adaptation to climate change (GCF, 2021). The fund was established in 2010 at the Cancún Agreements, with the first investment occurring in 2015, targeting adaptation (NAPs) and mitigation (NDCs) projects. The GCF receives funding from developed countries that are party to the UNFCCC, along with public, non-public, and alternative sources.

With increased discourse on migration as adaptation in academic and policy circles, this analysis attempts to fill gaps and address questions posed by researchers on what migration looks like when implemented in national climate change policies. In this chapter, climate change adaptation policies are examined in how, or if, migration is incorporated into the policy, including both the language, and framing as an initial step in understanding migration as adaptation.

4.3 Methodology

To understand if migration was being considered as an adaptation method, climate change adaptation policies from West African countries were looked at. Textual analysis was conducted on the documents, including both content analysis, and discourse analysis. The content analysis focused on the "presence or absence of certain words across or within texts" (Bernard, 2000 in Gatrell, Bierly & Jensen, 2012, p. 98) and was used to determine if migration is being considered in climate change adaptation policies in West Africa. This analysis provides quantifiable information about the policy documents, and in this case, was used to determine the presence or absence of migration in the policies.

The source material for the content and discourse analyses was the most recent climate change policy for each country that was focused on adaptation. In most cases, these included national adaptation plans (NAPs) and Nationally Determined Contributions (NDCs), but also included policies implemented on behalf of the country. For countries with multiple policies, priority was given to those developed by the country itself, with NAPs and NDCs being used when such a policy was not available. If the country had their own policy but it was more than ten years old and a more recent NAP or NDC was available, the NAP or NDC was selected to provide a more accurate depiction of current climate change adaptation efforts. For countries that did not have their own policy, but had both a NAP and a NDC, NAPs were given priority since they focus on adaptation, whereas NDCs focus on mitigation and often only include a brief section on adaptation.

In total, 16 policies were identified, one for each country in West Africa. All policies were downloaded on November 2022, either in English or French, with French policies being translated using Google translation software prior to analysis[1]. The policies analysed encompassed every country in West Africa, apart from Mali. Mali was excluded due to their policy being available only in French and unable to be translated via translation software due to the file size, which resulted in 15 policies for the analysis (n = 15). In total, the 15 policies included the following countries: Benin, Burkina Faso, Cabo Verde, Côte D'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo (Table 1). Once the documents were translated, they were uploaded in QDA Miner, a qualitative data analysis software developed by Provalis Research.

[1] All quoted material within this section that is derived from French documents may vary from the original text due to differences in the translation.

For the content analysis, a set of keywords and phrases were developed based on the findings from reviewing climate change adaptation policies and literature reviews of environmental migration. For this research, the keywords included migration, migrate(d), migrants, immigration, emigration, mobility, move(ment), and displacement. Next, the policies were systematically examined, and the presence or absence of each keyword was documented. This was done by accessing the digital policy document and making use of the search function when possible. The presence or absence of keywords provided the first step in identifying which countries were addressing migration in some capacity within their policy. The policies that addressed migration were then used for the discourse analysis (n = 11).

Discourse analysis, the "close study of natural occurring themes" (Bernard, 2000 in Gatrell et al., 2012, p. 98) was used to understand the social and political context of adaptation measures by conducting a critical reading of the policies. This research used a particular type of discourse analysis, known as Foucauldian discourse analysis. Waitt (2016, p. 291) provided a modified summary of Rose's (2001, p. 158) stages on how to conduct Foucauldian discourse analysis: (1) Choice of source materials or texts, (2) Suspend pre-existing categories: become reflexive, (3) Familiarization: absorbing yourself in and thinking critically about the social context of your texts, (4) Coding: once for organization and again for interpretation, (5) Power, knowledge, and persuasion: investigate your texts for effects of "truth", (6) Rupture and resilience: take notice of inconsistencies within your texts, and (7) Silence: silence as discourse and discourses that silence.

In starting the discourse analysis, categories were developed based on preliminary research on climate change migration literature, and included the framing of migration, forced migration, planned relocation, irregular migration, and involuntary immobility. After the initial coding, and reading through the policies, the coding was refined to include displaced populations within the forced migration category, adding a new category for containment development, and identifying the funding source of the policy. The policies were then recoded to account for the updated and new category. All coding was conducted in QDA Miner, and each coded category was exported into Microsoft Word, where all relevant passages to that category were listed by policy.

Table 1. Climate Change Policies of West African Countries Selected for the Policy Analysis.

Country	Name of Policy	Date Published	Source
Benin	Plan national d'adaptation aux changements climatiques du Bénin	2022	https://unfccc.int/sites/default/files/resource/PNA_BENIN_2022_0.pdf
Burkina Faso	Burkina Faso National Climate Change Adaptation Plan (NAP)	2015	https://www4.unfccc.int/sites/NAPC/Documents/Parties/Burkina%20Faso%20NAP_English.pdf
Cabo Verde	National Adaptation Plan of Cabo Verde	2022	https://unfccc.int/documents/619920
Côte D'Ivoire	Contributions Déterminées au niveau National CDN – Côte D'Ivoire	2022	https://unfccc.int/sites/default/files/NDC/2022-06/CDN_CIV_2022.pdf
The Gambia	The Gambia's Long-term Climate-Neutral Development Strategy 2050	2022	https://unfccc.int/sites/default/files/resource/Long_Term_Climate_Change_Strategy_of_The_Gambia_Final.pdf
Ghana	Ghana's National Adaptation Plan Framework	2018	https://napglobalnetwork.org/wp-content/uploads/2020/04/napgn-en-2018-ghana-nap-framework.pdf
Guinea	Contribution Déterminée au niveau National (CDN) de la République de Guinée	2021	https://unfccc.int/sites/default/files/NDC/2022-06/CDN%20GUINEE%202021_REVISION_VF.pdf
Guinea-Bissau	Republic of Guinea Bissau: Updated Nationally Determined Contribution in the Framework of the Paris Climate Agreement	2021	https://unfccc.int/sites/default/files/NDC/2022-06/NDC-Guinea%20Bissau-12102021.Final.pdf
Liberia	Liberia National Adaptation Plan (2020-2030)	2021	https://unfccc.int/sites/default/files/resource/LIBERIA_%20NAP_%20FINAL_%20DOCUMENT.pdf
Mauritania	Contribution Déterminée Nationale Actualisée CDN 2021-2030	2021	https://unfccc.int/sites/default/files/NDC/2022-06/CDN-

			actualis%C3%A9%202021_%20Mauritania.pdf
Niger	Plan National D'Adaptation aux Changements Climatiques	2022	https://unfccc.int/sites/default/files/resource/Plan-National-d%27Adaptation_Niger_Version-Finale.pdf
Nigeria	National Climate Change Policy for Nigeria 2021-2030	2021	https://climatechange.gov.ng/wp-content/uploads/2021/08/NCCP_NIGERIA_REVISED_2-JUNE-2021.pdf
Senegal	Contribution Déterminée au Niveau National du Senegal	2020	https://unfccc.int/sites/default/files/NDC/2022-06/CDNSenegal%20approuv%C3%A9e-pdf-.pdf
Sierra Leone	National Adaptation Plan 2021	2021	https://unfccc.int/sites/default/files/resource/SierraLeone_iNAP_Final.pdf
Togo	Republique Togolaise Plan National d'Adaption aux Changements Climatiques du Togo (PNACC)	2018	https://www4.unfccc.int/sites/NAPC/Documents%20NAP/Togo%20NAP.pdf

4.4 Results

4.4.1 Migration

Overall, the mention of human migration in relation to climate change occurred in 73% of the policies (11/15 documents). The 11 countries who have identified human migration in at least some capacity included: Benin, Burkina Faso, The Gambia, Ghana, Liberia, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo. The extent of how migration was discussed varied from an inclusive, integrated approach into the overall policy to singular mentions, such as a sentence stating that it was a consideration in the formation of the policy. Overall, Benin's national climate adaptation policy included the most integrated discussion of migration. The inclusion of migration into Benin's policy was outlined at the onset as something that would be of particular emphasis, leading to an integrative approach that incorporated migration in the adaptation measures throughout the entire policy. On the contrary, The Gambia's policy only mentioned the impact of human migration on mitigation efforts, and in Ghana's policy, they identified that their adaptation plan would align with their migration plan, but with limited further information. Those that did not mention a link between climate change and migration included: Cabo Verde, Côte d'Ivoire, Guinea and Guinea-Bissau. In looking at the framing of migration, the following themes were analysed:

- Migration Framing
- Displaced Populations / Forced Migration
- Planned Relocation

- Irregular Migration
- Containment Development
- Trapped Populations / Involuntary Immobility

4.4.2 Migration Framing

The policies identify migration occurring as a result of the impacts from climate change in current contexts, future contexts and historical contexts related to the circular migration performed by pastoralists. In the various contexts, different policies identify different climatic stressors as the cause of migration. In Benin's policy, migration is identified as occurring related to land use and degradation, where farmers will migrate to find more fertile land and younger people will pursue rural to urban migration due to climate variability making agriculture a difficult pursuit. The policy goes as far to say that migration is a modus operandi of land use and that policies linking land use and migration are imperative:

> In search of fertile land, many farmers migrate to areas that are supposed to be more fertile and offer more land availability. Migration therefore appears as a modus operandi of land use. Also some young people migrate from rural areas to cities (urban centers) in search of extra-agricultural activities since climate variability now makes agricultural production uncertain. It is imperative to propose and develop policies relating to land use and its effects on human mobility (p. 30).

In Nigeria and Sierra Leone's policy, the significance of migration related to land degradation is echoed. Nigeria's policy states, "[t]here is significant migration from the Basin to many parts of

the country as people flee drought and land degradation . . .” (p. 13) while Sierra Leone’s policy identifies rapid rural-urban migration as a threat due to the impact of climate change on the environment, encompassing forestry, land, mineral resources and tourism. On the contrary, Liberia and Senegal’s policies describe migration mostly as a result due to coastal flooding. Liberia’s policy identifies sea-level rise as a climatic stressor that poses the risk of displacement or migration of coastal populations, and in the future context, amplified migration inland as a result from sea-level rise, coastal erosion, and the risk of coastal flooding. The policy states, “Liberia’s Environmental Protection Agency is concerned that the rise in sea level will increase migration to higher lands and/or result in shock waves of migration to the interior when coastal inhabitants seek refuge from flooding”. In Senegal’s policy, under the current emissions scenario, coastal communities will be displaced and will continue to be displaced under worsening conditions.

Burkina Faso also identifies coastal flooding as the main climatic stressor that has the potential to contribute to the displacement or forced migration of coastal communities. In Burkina Faso’s policy, one of the recommended adaptation measures is to relocate populations from low-lying and flood zones, which appears in two of their objectives. The first objective it appears in is to “Protect persons and goods from extreme climate events and natural disasters” (p. 10), where it is identified as a long-term goal. In the second objective, “Infrastructure”, the relocation of people is identified as a short-term goal, although it does not describe how this will be implemented and no further elaboration on the topic is given. Niger’s policy mostly refers to temporary and seasonal migration of the pastoralists but also identified near future “massive population displacements” due to changes in temperature and precipitation.

In policies of Niger and Sierra Leone, blame is placed on migrants for their contributions to climate change. In the case of Niger, the policy describes harmful impacts from the influx of migrants from neighbouring countries, and in Sierra Leone, the impacts from rural to urban areas are addressed. Niger's policy identifies migrants as a risk for forest ecosystems, since they "indulge in the uncontrolled exploitation of forest products and the illegal clearing of forests in search of cropland. These migrants settle around the big cities, thus damaging the forest areas" (p. 80). Similarly, in The Gambia, the policy describes the increase of rural to urban migration as a strain on mitigation efforts to reduce emissions.

4.4.3 Displaced Populations / Forced Migration

Several policies describe displacement as an already occurring phenomenon due to climate change, both from slow-onset and rapid-onset impacts (Benin, Liberia, Niger, Nigeria, Senegal and Togo). In the policies that specified the cause of displacement, slow-onset impacts referred to coastal communities facing sea-level rise, coastal erosion, or a combination of both. Rapid-onset impacts related to natural disasters, including flooding and landslides. In Senegal, human displacement was described as a future issue as it is identified as a risk in a future scenario with a temperature increase of 4°C.

Nigeria and Benin view displacement using an intersectional lens. Nigeria's policy looks at the intersection of persons displaced by climate change, politics, and gender. The policy identifies displacement from climate change as a potential risk to political stability as increased numbers of

internally displaced people and resource scarcity could lead to conflict. In several sections in their policy, Nigeria described the disproportionate vulnerabilities of displaced women, including the increased risk of sexual violence and the importance of reducing the impacts of displacement to ensure women's safety. Nigeria's policy also points to discrepancies regarding the role of women facing forced migration yet the lack of their involvement in solutions to climate change. The policy states that "forced migration often leaves women and girls to manage the ecosystem, without being actively involved in the discourse around home-grown solutions" (p.36), identifying the need for the better inclusion of women in climate change solutions and the potential of displacement to mitigate efforts in human security and development. In an effort to mitigate the impact of displacement on women, Benin identifies one of their targets as the "facilitation of access to land by women in the event of internal displacement resulting from climate change, with the aim of strengthening their financial empowerment" (p. 72).

4.4.4 Planned Relocation

Benin, Burkina Faso, and Liberia all outline planned relocation for populations impacted by climate change as one of their adaptation methods. In Burkina Faso and Liberia, both countries specifically identify the relocation of coastal communities. In the case of Burkina Faso, populations who are in "submersible", "floodable", "low-lying" and "flood" zones were identified, whereas In Liberia, "densely settled coastal zones" and settlements that are facing coastal erosion due to sea-level rise and sand mining are mentioned. Although Liberia does not mention the relocation of specific coastal communities, they do identify the increased risk of Monrovia, New Kru Town, River Cess, Buchanan, and Robertsport. Further, Liberia identifies

that the West Point Slums in Monrovia have previously been evacuated due to the storm surge. In Benin's policy, they do not specify a population or group of people who are facing a certain climatic impact but identify the relocation of those impacted by climate change broadly. Although the three policies identified planned relocation as an adaptation strategy, there is no further information on how they intend to implement this solution. It is also not identified where people will be relocated to, but since there is no mention of working with other countries, it is probable that in all cases of relocation, they are referring to relocation within the country. In Benin's policy, they mention needing to conduct a census of climate migrants and the "implementation of strategies for managing the migration and relocation of people affected by the impacts of climate change" (p.87). It is likely that the inclusion of migration into their policies is a new endeavour and will be an ongoing process. This rhetoric was echoed in Nigeria's policy, where they identify one of their policy measures to "integrate migration and human displacement issues in national climate change planning" (p. 36), signalling the inclusion of mobility as further effort in future policies.

4.4.5 Irregular Migration

Irregular migration is only mentioned in the policies of two countries (Senegal and Niger). Senegal's policy identifies irregular migration as a current impact under the 2°C scenario, specifically relating to the fishery sector. Niger's policy describes the negative consequences of irregular migration on the land and forest ecosystems within their country. The policy states that irregular migrants "sometimes indulge in the uncontrolled exploitation of forest products and the illegal clearing of forests in search of cropland. These migrants settle around the big cities, thus

damaging the forest areas" (p.80). In addressing this, the country adopted a strategy against irregular migration. By recognizing the impacts of irregular migrants on the environment, the policy identifies that in creating adaptation strategies for the forestry sector, that the migrants must be actively involved to reduce vulnerabilities of the sector.

4.4.6 Containment Development

With the proliferation of development solutions geared towards keeping people in place, or preventing people from migrating, adaptation solutions for climate change were analysed for the presence of this using a critical lens. Most solutions outlined in the policies are oriented towards in-situ adaptation, with strategies mostly focused on energy, forestry, agricultural and water sectors. The sentiment of containment development is expressed in Benin's policy as one of their guiding principles. The policy states:

> Benin is already confronted with displacements and migrations caused by environmental factors. The inclusion of mobility in the NAP can be transformative, as rural development can play an important role by addressing the negative drivers of migration and focusing on the social and economic conditions of the rural areas of origin affected by climate and destination (p. 66).

Although the word "containment" is never used, the policy identifies rural development solutions to address negative drivers of migration, identifying a sedentary bias as an ulterior motive of the policy. This sentiment was clear later in the policy, where one of the adaptation options specifies

measures to “promote livelihood diversification of vulnerable groups to reduce rural-urban migration (rural exodus)” (p. 94).

4.4.7 Funding

Of the policies analysed, two countries did not explicitly state funding sources (Guinea and Senegal), with all other countries identifying contributions from external funding sources (Table 2). Funding is largely provided by organizations of the United Nations, specifically the Green Climate Fund created by United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Development Programme (UNDP), FAO (Food and Agriculture Organization of the United Nations), along with other international organizations. Country-specific international organizations also contributed to funding such as the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), an organization with representation from Berlin (Germany) and Brussels (Belgium) that operates internationally. In several cases, funding came from the development sectors of the national governments, including Japan’s Official Development Assistance, France’s Agence Française de Développement, and the United States In-Country Support Program.

Table 2. The Funding Sources of Climate Change Policies for West African Countries.

Country	Name of Policy	Funding
Benin	Plan national d’adaptation aux changements climatiques du Bénin	• Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) • Green Climate Fund • UNDP
Burkina Faso	Burkina Faso National Climate Change Adaptation Plan (NAP)	• Japan’s Official Development Assistance • UNDP

		• Global Water Partnership West Africa • Global Environment Facility
Cabo Verde	National Adaptation Plan of Cabo Verde	• Government of Luxembourg
Côte D'Ivoire	Contributions Déterminées au niveau National CDN – Cote D'Ivoire	• United Nations Environment Programme • UNDP • FAO • Agence Française de Développement • Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) • African Development Bank Group • UN Capital Development Fund (UNCDF) • International Labour Organization
The Gambia	The Gambia's Long-term Climate-Neutral Development Strategy 2050	• 2050 Pathways Platform
Ghana	Ghana's National Adaptation Plan Framework	• United States In-Country Support Program • International Institute for Sustainable Development (IISD) • NAP Global Network
Guinea	Contribution Déterminée au niveau National (CDN) de la République de Guinée	• N/A
Guinea-Bissau	Republic of Guinea Bissau: Updated Nationally Determined Contribution in the Framework of the Paris Climate Agreement	• UNDP • Expertise France • The Global Climate Change Alliance Plus Initiative (European Union) • ECOWAS • European Commission • The Organisation of African, Caribbean and Pacific States (OACPS)
Liberia	Liberia National Adaptation Plan (2020-2030)	• Green Climate Fund
Mauritania	Contribution Déterminée Nationale Actualisée CDN 2021-2030	• Green Climate Fund • UNDP
Niger	Plan National D'Adaptation aux Changements Climatiques	• Green Climate Fund • UNDP
Nigeria	National Climate Change Policy for Nigeria 2021-2030	• UNDP

Senegal	Contribution Déterminée au Niveau National du Senegal	• N/A
Sierra Leone	National Adaptation Plan 2021	• UNDP • NAP-GSP - National Adaptation Global Support Programme
Togo	Republique Togolaise Plan National d'Adaption aux Changements Climatiques du Togo (PNACC)	• Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

4.5 Discussion

The discourse of migration in climate change adaptation policies in West Africa provides insights into how migration is being framed in national policies. The results show that most countries do see migration occurring because of climate change, yet not all policies address migration, and in the policies that do, the extent of their discussions are hugely varied. In most cases, the connection between the environment and migration referred to forced migration, by populations who are being displaced primarily due to land degradation and coastal flooding caused by sea-level rise. Although a few policies describe adaptive migration initiatives such as planned relocation at the state level, it is often still framed as an issue, or a negative result occurring from the impacts of climate change.

The policies that do consider planned relocation as a strategy, lack discussion and thought on how the countries will facilitate it, where will the planned relocation occur, if internal relocation strategies will be sufficient and where will the funding come from. If planned relocation is to be considered a valid adaptation strategy because of climate change, a more integrative approach is needed that addresses many of the questions left unanswered. Since government-led planned

relocation also has the potential to cause negative impacts such as the loss of cultural heritage and identity (Vinke et al., 2020), the need to include local voices and perspectives in planning is crucial to minimize risks and impacts to those who participate. In looking at practical solutions that implement migration as adaptation, planned relocation is only one of several options. Migration as adaptation can take other forms, such as "voluntary resettlement, temporary or permanent labor migration – both nationally and internationally – as well as translocal lifestyles and transnational diaspora relations. . ." (Etzold & Mallick, 2016, p. 122). In addressing how migration can act as a climate change adaptation strategy, consideration should also be given to other strategies as they may work better given the context specific situations.

Although the UNFCCC has been credited with incorporating migration as adaptation into their policy frameworks since the Cancun Adaptation Framework (McLeman, 2016), equally, a long-standing and established sedentary bias exists. Sedentary biases opt for in-situ development over migration (Lietaer & Durand-Delacre, 2021) and organizations such as the International Organization for Migration (IOM) of the United Nations and European development actors have been criticized of this (Lietaer & Durand-Delacre, 2021). A redistribution of wealth is crucial in order to fund climate adaptation projects in developing countries, however, international funding sources pose potential implications for what is, or what is not included in their climate adaptation policies. Specifically, with the Green Climate Fund, Kalinowski (2020) identified one of these challenges when he said "[t]hose in favor of funding proposals will always try to display them as mere technocratic projects, while, in fact, most decisions are political and set precedence for future decisions" (p. 6). Although the GFC claims to operate on a "country-driven approach", whereby the country implementing the solutions are the ones leading the programming and

implementation of the policies and subsequent projects, it is crucial to recognize where political biases may be included or excluded within these policies.

With the UNFCCC pushing for migration to be included in national adaptation plans in developing countries (McLeman, 2016), there is a policy gap between what they are recommending and what is feasible given current political frameworks that facilitate migration (Nishimura, 2015; Gemenne & Blochier, 2017). Although the UNFCCC does not distinguish or further define migration, for many countries internal migration alone will not be enough, necessitating international migration. This is especially true for small island developing states, who by 2100 may no longer have a country to call home (Storlazzi et al., 2018). Similarly, in West Africa, internal migration and even regional migration may not be adequate as nearby countries will face similar climatic impacts and often internal migration alone does not lead to upward social mobility or improved circumstances (Ayamga et al., 2019; Cundhill et al., 2021; Conrad Suso, 2023, forthcoming). However, for many in developing countries, international migration is not possible given the lack of access to official and legal migration (Conrad Suso, 2019), creating a policy gap between what is being proposed as a solution to developing countries – migration – and what is possible given current migration frameworks. Facilitating adaptive migration would align with the recommendations of UNFCCC and contribute to closing the gap that currently exists.

Funding was an added category after noticing that most of the policies acknowledged non-state contributions for both funding and expertise used to develop the policy. As noted by Arnall & Kothari (2015) “there are multiple, and sometimes conflicting, political interests and agendas

shaping how narratives of climate change and migration are produced, circulated and interpreted. . .” (p. 204). Understanding that many of these policies were developed with funding or expertise from non-state contributors is crucial to understanding the sedentary biases that appear to be perpetuated in climate change policies. Strategies are more likely to revolve around containment development solutions, promoting in-situ adaptation while neglecting to consider mobility as a valid adaptation strategy, which reflected most adaptation strategies proposed in the policies. As more adaptation strategies are needed as climate change worsens, the prevalence of solutions through containment development, are likely to increase. Although in-situ adaptation strategies are also needed for those who wish to remain, it can often overshadow mobility as an adaptation option which may be crucial in certain scenarios. It is also important to note that if the end goal of the strategies rooted in containment development is to reduce migration, it will not work. As Carling & Talleraas (2016) note “reducing migration through promoting development is a strategy marred with contradictions” (p. 13).

4.6 Conclusion

As researchers and policy makers increasingly identify that climate change will be linked to migration both internally and internationally, it is crucial that the policies governing both areas address and incorporate climate change and migration into the respective documents. An understanding of the framing of migration in national climate change policies provides a crucial first step in facilitating migration as adaptation. Considering future climate change scenarios, people will be forced to migrate in the not-so-distant future. To facilitate the safe movement of people and reduce the existing policy gap regarding recommendations versus realities of

migration, the inclusion of adaptive migration needs to be better incorporated into national adaptation policies. Efforts must begin at the national level but given the nature of international migration, it is also necessary to be in agreement with international policies.

Chapter 5: Climate Adaptation in The Gambia

5.1. Introduction

Several different data collection methods have been used to study environmental migration, including qualitative methods such as interviews and ethnographic approaches, or more quantitative approaches such as surveys, hotspot analysis, historical analogues, and multilevel approaches (Piguet, Kaenzig and Guélat 2018). The various methodologies have been generally grouped into five categories: ecological inference based on area characteristics, sample surveys, time series, multi-level analyses, agent-based modelling, and qualitative and ethnographic studies (Piguet, 2010). Qualitative methods are the most widely used approach in the field and constitute over a third of empirical publications on environmental migration (Piguet, 2010; Piguet et al., 2018). Due to the diversity in methodologies, in order to have more direct and relevant comparisons with other research in environmental migration, interviews were the chosen methodology employed for this thesis. To address the first research question on how Gambians are adapting to climate change, empirical research was conducted through semi-structured interviews in The Gambia. The research attempted to understand Gambians' experiences with climate change and how they are adapting to it, centering their voices, and lived experiences. The interviews followed the same style used by Conrad Suso (2019), combining snowballing chains to find participants and semi-structured interviews with informants.

5.2 Methodology

5.2.1 Interview Design

Semi-structured interviews were used to understand how Gambians are adapting to climate change and to understand if Gambians are identifying migration as an adaptation strategy that is actively being used. Using a semi-structured interview style meant that a guide was developed with a set of pre-defined questions, but was flexible, open for elaboration, and new questions could be introduced as needed while interviewing the informant (Appendix A). Due to the complexity of the environment acting as a stand-alone driver of migration, questions focused on climate change adaptation, allowing narratives of migration to be extracted from the broader narrative. The approach taken was similar to that of Romankiewicz & Doevenspeck (2015) who aimed to understand migration from a local perspective without asking about the connection to climate change. The authors make the valid point that asking about the direct link between climate change and migration tends to overlook the "subtle and complex social and political undercurrents that relate to migration" (Romankiewicz & Doevenspeck, 2015, p.84). In doing this, the authors conducted semi-structured and narrative interviews in attempt to understand motivations for migration along with the local meaning behind these movements. My research took a similar approach by not asking about direct linkages between migration and climate change, but from a different perspective. In my interviews, I aimed to understand how communities are adapting to climate change without providing a direct link to migration, only bringing migration into the conversation if the person being interviewed brought it up first. By conducting interviews this way, it would also allow for migration narratives to be extracted from the broader conversation on climate change adaptation.

Interviews were not recorded based on advice from my supervisor who has over a decade of experience working with and alongside Gambians. This was a deliberate decision to make the person being interviewed feel more comfortable being interviewed by myself, an outsider to Gambians, and to generate a more conversational style interview. Although recorded interviews have become commonplace since the technology has been readily available, the over reliance on interview transcripts have been criticized as a discursive practice (Rutakumwa et al., 2020). As noted by Nordstrom (2015), recording devices "can be linked to race, age, class, culture, and politics even though the qualitative inquiry and anthropological literature many times do not explicitly acknowledge these areas" (p. 391). Due to the clandestine nature of irregular migration and my positionality as an outsider to The Gambia, establishing a relationship between myself and the person being interviewed was crucial for the participant to feel comfortable enough to bring up migration as an adaptation strategy if they felt inclined. Using a recording device could trigger feelings of discomfort, possibly making the participants reluctant to bring up irregular migration. Handwritten notes were taken during the interview, and a more in-depth interview script was written directly after the interview.

5.2.2 Sampling

Snowball sampling, "using one contact to help you recruit another contact, who in turn can put you in touch with someone else" (Valentine, 2003, p. 117) was used to recruit people who would be interested in talking about climate change. One of the main criticisms of using snowballing recruitment techniques is that you can end up recruiting participants from similar circles of people which may bias your results (Valentine, 2003). Although the disadvantage of using

snowballing recruitment was acknowledged, the trust potentially gained from participants outweighed the potential shortcomings and created more fluid conversations. Measures were taken to prevent biased results by sampling from various communities using a new starting connection at each new location. Sampling targeted Gambians who are particularly susceptible to climate change and occurred largely from two different communities in attempt to reach people who face different climate stressors, but also included people who did not live in either of these environments but were interested in discussing climate change. The communities that were targeted included a coastal community, a subsistence agricultural community along with urban dwellers who lived in various neighbourhoods. An attempt was made for equal gender representation since females are often underrepresented in environmental migration studies. Due to time and resource constraints, the scope of the interviews was limited to those who live within The Gambia country boundary.

5.2.3 Study Participants

In determining the number of interviews to conduct, saturation was the guiding principle, but was ultimately limited by the amount of time spent in The Gambia. Due to the qualitative nature of this research, purposeful sampling was used to seek out rich informative data, focusing more on quality of the responses as opposed to the quantity, which in this research is the number of participants. When conducting qualitative research, the number of participants or sample size that is required varies depending what research is being conducted, but saturation has been identified as a core guiding principle (Morse, 1995; Hennink et al., 2017). Saturation is the point in qualitative data when you reach “data adequacy” and no new information becomes available (Morse, 1995).

Studies that have attempted to identify the point at which data saturation becomes established varies. For example, in their study of two locations in West Africa, Guest et al. (2006) noted thematic/data saturation was achieved through 12 interviews, although at just six interviews the basic elements were present. Similarly, in their research on how to develop effective risk communications, Morgan et al. (2002) found that most new information was found in the first 5 or 6 interviews, with few emerging themes developing after that. Since its inception in 1967 by Glaser and Strauss, researchers have attempted to categorize different types of saturation. Saunders et al. (2018) note that currently four general types of saturation exist: theoretical saturation, thematic saturation, a priori thematic saturation, and data saturation (Table 3).

Table 3. Four Types of Saturation in Qualitative Research. Adapted from Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Type of Saturation	**Description**
Theoretical saturation	Relates to the development of theoretical categories; related to grounded theory methodology
Inductive thematic saturation	Relates to the emergence of new codes or themes
A priori thematic saturation	Relates to the degree to which identified codes or themes are exemplified in the data
Data saturation	Relates to the degree to which new data repeat what was expressed in previous data

Hennink et al. (2017) combine the four models into two and identify *code saturation* and *meaning saturation*. The authors defined *code saturation* as "the point when no additional issues

are identified and the codebook begins to stabilize" (p. 594), whereas *meaning saturation* was defined as "the point when we fully understand issues, and when no further dimensions, nuances, or insights of issues can be found" (p. 594). For this research, inductive thematic saturation was used whereby data collected did not show the emergence of new themes. After seven interviews, saturation was noted, and was based on theme development defined by people telling different variations of the same story. It is likely that I would have continued to conduct a few more interviews in attempt to gather more outliers, but due to unforeseen circumstances, the available time to collect data became limited.

5.2.4 Positionality and Power Structures

It was also important that I analysed my own positionality and how power structures could create imbalances in the relationship between myself and the interview participants. Positionality "describes an individual's world view and the position they adopt about a research task and its social and political context" (Darwin Holmes, 2020, p. 1). Positionality was an important consideration as it influences research from the onset by identifying what research is conducted, how it is conducted, and the subsequent outcomes and results (Darwin Holmes, 2020). In conducting this research, I have also embraced reflexivity, acknowledging my positionality throughout at all stages of the research. As described by Darwin Holmes (2020), "reflexivity is the concept that researchers should acknowledge and disclose their selves in their research, seeking to understand their part in it, or influence on it" (p. 2).

First, it was important to acknowledge that I wrote this thesis from a pro-migration positionality, believing that human mobility is a human right and in the context of climate change, migration

should be regarded as a valid adaptation strategy. I recognise that this influences how I conducted my research, but also how I analysed the results. In addressing existing power dynamics, I reflected on my positionality in relation to those being interviewed, understanding that as a white Canadian graduate student, it would be possible that I could be considered in a position of power by the research participants. I also recognised that being female in a generally patriarchal society could mean the inverse to also be true.

I have also acknowledged that by conducting research in a country that is not my own, I would be viewed as an outsider which could make potential participants reluctant to speak to me. With my nationality being Canadian, I am an outsider to Gambians, but I am not a typical outsider as commonly defined in migration research. In migration research, an outsider is often regarded as "a member of the majority population in the country of settlement" (Carling et al., 2014, p. 36), and with international Gambian migration flows largely going to Europe, it was also possible that I was viewed more so as a neutral third party. In acknowledging the power dynamics, decisions were made to make the person being interviewed as comfortable as possible. Aside from not recording the interviews, I ensured the interviews were held in their community, at the location of their choosing. This meant interviews were held in a variety of spaces, ranging from communal gathering spots within the community to a table located on the beach. Having hosted the interviews in the research participants own space, it created a more relaxed conversation enabling the participant to feel more comfortable (Flowerdew & Martin, 2005).

5.2.5 Data Analysis

To analyse the interview data, a thematic analysis was conducted. Thematic analysis is "a method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke,

2006, p. 79). The process of conducting the thematic analysis involved familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report (Braun & Clarke, 2006; Nowell et al., 2017).

The interview scripts were developed after the interviews were first digitized, with each interview being typed into a Microsoft Word document, putting the data in a usable format, before proceeding with the thematic analysis. At this step, pseudonyms were given to the research participants to anonymize their data. After becoming familiar with the data, and reading the interview scripts multiple times, the Word documents were uploaded into QDA Data Miner, where coding was conducted. Coding in qualitative data refers to "tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study" (Miles & Huberman, 1994, p. 56). During this process, important sections of the scripts were identified, and labels were associated with each portion of the text.

Once the entire dataset was coded, the codes were analysed so that they could be sorted and combined into themes. In developing the themes for the analysis, an inductive or bottom-up approach was used (Braun & Clarke, 2006). Inductive thematic analysis is defined as "a process of coding the data without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions. In this sense, this form of thematic analysis is data-driven" (Braun & Clarke, 2006, p. 83). Following the development of themes was the next step which involved reviewing the themes. During this stage, the themes were analysed to determine if there was sufficient data to support the theme, and whether any themes could be combined, or would be benefit from being separated.

5.2.6 Research Ethics

Prior to conducting the interview component of my thesis, ethical clearance was granted by the Research Ethics Board at Saint Mary's University (file #22-003) on October 26, 2021. The research was in accordance with the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans (TCPS2) (Appendix B) and Saint Mary's University policies. The research participants provided consent to participate in the study and they were made aware that their participation was voluntary and that they could withdraw at any time.

5.3 Results

5.3.1 Overview

For this study, a total of 13 in-depth interviews were conducted in The Gambia between May 11 to May 20, 2022, with the duration of interviews lasting between 15 minutes to one hour. Of the 13 participants, four were established connections, while the remaining nine were recruited by the initial connection through snowball sampling. The participants came from two rural subsistence agriculture communities (Janjanbureh and Tabba), one coastal community (Sanyang) with the remaining being urban dwellers from various neighbourhoods (Sanchaba and Bakau) (Figure 1).

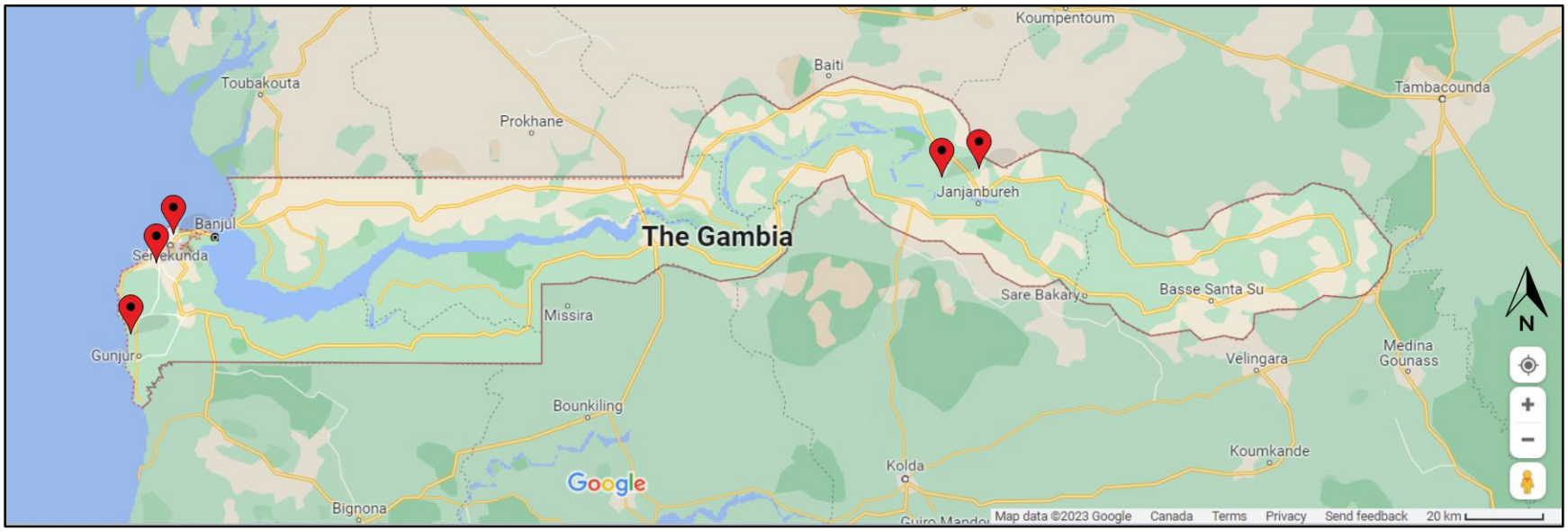

Figure 1. Location of Research Participants in The Gambia. Map data © 2023 Google Maps: The Gambia. Accessed: 23 February 2023.

In total, three of the participants were from Janjanbureh, four participants from Tabba, three participants from Sanyang and three participants who were from different urban communities. The ages of participants ranged from early 20s to late 60s, with the interviews occurring in the community of each participant. Of the participants, five were women (38%), and the remaining eight were men (62%).

5.3.2 Environmental Changes and Climate Change

The first interview question attempted to understand if the research participants were noticing changes in their environment and to understand what changes they were experiencing and if they are, how they are addressing or dealing with the changes. I also aimed to understand if the participants felt as though The Gambia was being equally affected, or if there were regions that were being impacted more than others. In the interview process, it soon became clear that Gambians have experienced changes in their environment, with the respondents all being familiar with climate change and feeling as though The Gambia was being impacted from climate change. When describing their experience with climate change, responses revolved around two broad categories, changes in the ocean and coastal environments and changes in the land and agriculture.

Coastal and Ocean Impacts

With The Gambia being situated on the Atlantic coast, many respondents described environmental changes as those that are impacting coastal and ocean environments. This was especially true when speaking with respondents from the coastal village of Sanyang since their

predominant livelihoods as small-scale fishers are dependent on coastal resources and the adjacent fisheries.

One of the main challenges the interview respondents from Sanyang identified was lower fish catches. The respondents related this problem to climate change but more so to over-exploitation by large-scale international fishing vessels. The large-scale vessels used by international fishers were no comparison to the small pirogues, a canoe-like boat, Gambians use to fish in the near shore. All three community members from Sanyang described Gambian fishing traditions, which involves fishing different species at specific times of the year, allowing time for the species to reproduce while also returning undersized catch. The three men expressed their frustrations with international fishers, who do not abide by their traditional customs, but instead use large nets that take everything, leading to depleted fish stocks.

Momodou, a man from Sanyang in his 60s who has been a lobster fisher for over 30 years described how the lobster fishery has changed over his lifetime. When speaking with him, he said that there are fewer lobsters now, and that now when people go out to catch them, the catches they bring home are small. It was evident based on the conversations that this problem was not unique to lobster species, but with all fish that the community relied on to pursue their livelihoods and to provide food security to the region.

The participants all felt great concern for the future of their fisheries. As Ousman, a farmer living in the coastal village of Sanyang in his early 20s said, “there will be a fishing crisis”. To him, it was not a matter of if, but rather a matter of when the fishing crisis would occur. He described

multiple compounding issues facing Gambian fishers, focusing on a lack of government support combined with preference given to international fishers. He explained that the Gambian government accepts bribes from the Chinese government to have preferential treatment and unrestricted access to their fisheries. He noted that their small boats are no comparison to the large vessels that fish offshore, leaving nothing for the local fishers. He pointed to the newly constructed Chinese fish processing plant located adjacent to his community with an effluent pipe discharging directly into the ocean and explained that they do not create jobs for Gambians, but instead import Chinese workers for both the fishing vessels and in the fish processing plants.

Outside of the fisheries, the threat of sea-level rise to coastal communities was also described by many respondents, regardless of their affiliation to the coast. As Ousman stated, “the sand dunes are gone; the ocean comes closer”. Although coastal erosion is a natural process, it is often exacerbated by human activity. One such human activity that is influencing erosion in The Gambia is sand mining, an extractive resource industry whereby sand is removed to be used elsewhere, often in the construction of building materials such as concrete. The removal of sand dunes leads to instability of the shore, making the coastline more vulnerable to coastal erosion and flooding.

Omar, a man in his 40s who did not live on the coast but in a nearby urban neighbourhood, also noted the impacts facing coastal communities. He said that the communities are experiencing sea-level rise, and that they can see that the water is getting higher every year. In the tourist areas, where the beaches are crucial to the industry, he said they must replenish the sand to maintain the beach as more is eroded out to the sea each year. He also described the impact of

coastal flooding on those who live adjacent to the coast, particularly those who live near wetlands during the rainy season. He noted that some of the houses in this area are made out of mortar, and when the street floods, it damages the house, forcing those who live there to leave. He described how people will return once the rainy season is over, moving cyclically in relation to the precipitation patterns, returning during the dry season, and leaving again during the rainy season. He noted that the government will help those forced to leave.

Land-based Impacts

In describing their experiences with climate change, those interviewed often commented about changes to the rainy season, and how the rains are experiencing greater variability, starting and ending at different times than they are accustomed to. They also spoke about changes in temperatures, with most commenting on how much hotter it has gotten. One of the impacts ubiquitous to all who were interviewed regardless of where they live was worsening crops because of climate change. Of course, those who lived in subsistence rainfed agriculture communities faced this year after year in struggling with their harvests, but even those who did not live in these communities' noticed differences in the products they purchase. This was evident when Omar, a man in his 40s, described how the fruit you buy now is not as good as it was once was, he commented, "mangos aren't as good, oranges aren't as good, they're drier now".

It was clear that the changing weather patterns were on the minds of those interviewed. The participants spoke about changing weather patterns, especially with respect to the

unpredictability of the rainy and dry seasons. Omar described how the rains would always start in June, but now it is not continuous and there can be breaks where several weeks go by without rain, destroying the crops that were already planted. Now, he said, people are waiting longer to plant seeds to avoid the possibility of losing the entire crop, which would be costly to replace. He emphasized that "farming is getting harder every year". This is critical for subsistence agricultural farmers as it directly impacts their food security and livelihoods, corresponding to their income. Fatou, a woman in her 20s from an urban community described the direct effect these impacts can have on a person's income. She explained that farmers used to have an income for six months, but now with the shorter and unreliable rainy season, they are only earning an income for four months.

Her comments rang true for those living in Tabba, a rural rain fed subsistence agricultural village located up-country in rural Gambia. The four people interviewed from the village included two men, one in his 50s the other in his 30s and two women both in their 40s. One common impact that was noted by all participants from Tabba was soil erosion impacting their crops and therefore impacting their livelihoods and food security. Satou described how the soils in the community have gotten drier, and now the winds pose a significant threat for their agricultural yields that sustain their livelihoods. She said the dry soils, combined with a lack of tree cover due to deforestation, have left their agricultural fields exposed and vulnerable to wind erosion. When the community experiences periods of high winds, the soil erodes, impacting already planted seeds and damaging young crops. If a period of high wind coincides with newly planted seeds, the wind erosion can have a detrimental effect on the community because it is often not viable to replant a whole field of seeds due to the high costs associated with doing so.

Unfortunately, Aminata, a woman in her 30s from the community explained that this was the case last year when the groundnut harvest did not produce enough to sustain their livelihoods, and that they could not make an adequate income on their harvests. She noted that this is the same in all nearby communities.

Amie, a woman in her 20s from a neighbouring rural village said that the same is true in Janjanbureh. She described the same situation as in Tabba, saying "the amount of rainfall has gone down, there is no rain when there should be rain, there are no trees, there are high winds and vast drylands, it is totally dry, there is not a single tree". She noted that the community is dependent on farming and that people do not know what to do. She said, "harvests are late, which means that the amount [the farmer's] can harvest is often less and people are short on income". Amie described one particularly bad season where community did not have rain for two months, requiring all of the crops needing to be replanted. She noted that "it would have been a really bad year for anyone who couldn't afford to replant their crops as they could be out for the entire harvest that year".

In Tabba they are still farming their land, but they noted that some of the neighbouring villages are no longer able to farm. The hotter temperatures, strong winds, dry soils, and unpredictable rainy season compounded with no access to alternative water sources or irrigation systems were often to blame. A large factor in determining whether the community could farm or not was related to their proximity of the Gambian River. Those who were close to the water source were able to keep their field watered, preventing the wind erosion of the soil. Those who were far away from the river often faced the greatest challenges as it was not easy to keep their crops

watered due to the immense energy and effort it took to obtain enough water. Amie commented that in Janjanbureh, they are lucky to be close to the river, so it is easier to access water for the crops, but for many rural communities this is not an option. She also commented that there are many communities very far from the highway so you cannot even easily travel to get enough water for the crops. In these communities, she said the people must rely only on the rain to water their crops, with no other viable options.

5.3.3 Is Climate Change Worsening?

Overwhelming, the majority of participants were quick to note worsening environmental changes, with most specifically identifying the impacts from climate change as discussed above. However, two participants, Ebrima, a man in his 40s from an urban neighbourhood and Baboucarr, a man in 30s from Janjanbureh felt as though impacts from climate change were improving. Ebrima noted that all places are experiencing environmental changes, but the rural regions are experiencing more change. Although he acknowledged environmental changes, the changes he noted were in opposition to most respondents. He said that farming in the rural regions of Gambia is getting better and although in agreeance with the majority that the climate is more irregular than it once was, he felt as though it is getting colder. Ebrima spoke from his experience working on a beach, noting that when tourists travel to The Gambia, they are spending less time on the beach because it is too windy and cold.

Baboucarr similarly noted that the environment was changing, and in a similar vein, he felt that the climate was getting colder, stating that the temperatures in Janjanbureh used to go as high as 52 degrees Celsius, however now it often only reaches 44 degrees Celsius. Baboucarr also

thought that the rainy season was getting longer, and he commented that as a result of the longer rainy season, farming has improved. He noted that the rainy season used to only last four months, but they are now experiencing the rainy season for five to six months. Interestingly, when interviewing Baboucarr, his friend Amie who had also been interviewed joked that he did not know what he was talking about when he said that climate change is getting better.

5.3.4 Which Areas are Being Impacted the Most?

When asking who in The Gambia is being impacted the most by climate change, many of the respondents felt as though The Gambia was equally being impacted and there was not one area facing greater impacts than another. It was common for those being interviewed to acknowledge the disproportionate impact of climate change on Gambians, and I sensed a collective feeling of grief after asking the question. This was denoted by comments about the communal struggles Gambians face regarding climate change, as Ebrima, an urban dweller in his 50s said “we are all struggling”.

A few people felt that certain areas were clearly more impacted than others. Fatou, a woman in her 20s from an urban neighbourhood identified Kauur and Basse specifically and the rural provinces broadly as facing the greatest impacts from climate change. She said that this was mostly due to limited water availability, which is not only essential for life, but also necessary as these communities rely on rainfed agriculture for their livelihoods. As noted above, Ebrima also felt as though rural Gambia was experiencing greater change but did note that all places are changing. On the contrary, Omar who is from an urban neighbourhood near the coast felt that the

coastal communities were undoubtably being impacted the most due to the combination of rising sea levels and coastal erosion.

5.3.5 Adaptation Strategies

When asked how people are coping with the environmental and climatic changes they are experiencing, several adaptation methods were given, often specific to their geographical region or their livelihoods. In the community of Tabba, the respondents noted that they are engaged in efforts to plant trees to reduce wind exposure to the agricultural fields and help stabilise the soil to reduce their losses. They also identified using better, more sustainable farming methods and focusing on harvesting more in the rainy season, when it is not dry.

Baboucarr commented that people are very aware of climate change and are actively engaging in efforts to improve it. He said people are conscious of their impacts and making sure to pick up garbage, especially plastic bags, conflating issues of climate change with broader environmental issues. He also identified that like in Tabba, people in Janjanbureh are planting trees to help with the effects of climate change. Baboucarr said that local communities are now “taking efforts into their own hands”. He briefly identified that through partnerships with organisations and in climate change policies, communities are getting assistance via technicians to help farmers with more sustainable practices that contributes to better harvests, but unfortunately could not elaborate further.

Fatou, a woman in her 20s, discussed a savings and lending program that has been helping rural Gambian women pursue agriculture despite increasing costs. Each woman involved in the

program makes regular small financial contributions to a joint fund shared amongst the women. There are different options for when you take your share out, with one of those times being just before the farming season. The money that is withdrawn can then be used to assist with the initial higher costs associated with the beginning of the season, such as purchasing equipment or seeds. In addition to making agricultural more accessible and affordable to women, it is also increasing the morale and independence of women who no longer must rely on their husband's financial situation to pursue their own livelihoods.

A common theme repeatedly mentioned was that many of the in-situ adaptation strategies are no longer enough and that their efforts are not making a big enough difference to matter. This was evident when asking how people are managing with the environmental constraints they described, and many people immediately identified that people are leaving. However, it is important to note that to leave was not their first effort, but rather they felt as though they have exhausted many of the available options and now there is nothing left to do but to leave, as Fatou commented "we need to fight for what we have, protect what we have, to ensure it is sustainable".

5.3.6 Migration as an Adaptation Strategy

When asking how people are adapting to the environmental changes they are experiencing, many of those interviewed identified migration, including both internally and internationally, as a strategy used by Gambians. Of those interviewed, 12 participants out of 13 identified migration as an adaptation strategy, which consisted of eight participants identifying that people are migrating internationally via "backway" and four participants who only commented on internal

migration. In total, only one research participant felt as though climatic and environmental changes were not contributing to migration, or that it was not currently being thought of as an adaptation strategy.

5.3.7 Internal Migration

Internal migration was often mentioned as an adaptation strategy to cope with climate change with respect to all communities, but especially to those from rural regions of The Gambia. With increased difficulties in pursuing traditional fishing and farming livelihoods, many respondents commented on how the rural communities end up losing their young adults through internal migration to the coast in pursuit of better opportunities. Internal migration was often described as an adaptation strategy to diversify traditional livelihoods that are no longer as easily pursued. Ousman, a male in his early 20s, expressed this sentiment when he said that with fewer opportunities to fish and farm, people are leaving their communities and moving to the cities. Although he felt that many people were migrating internally to diversify their livelihoods or in pursuit of new opportunities, when asked if he or others would ever leave the country for these same reasons, he responded “No! I love The Gambia”. In his case, he did not feel that the lack of opportunities or increased challenges in pursuing traditional livelihoods would be enough for someone to migrate internationally or to go backway, although most did not share this sentiment. Amie described that many of the farmers from Janjanbureh have shops in Banjul, and when there is no rain, they will stay in Banjul and sell items in their shops. Although she noted that this experience was not common amongst everyone, stating that “most of the younger people are just staying in Banjul, but there is also no work in Banjul”.

The lack of opportunities available in the city that Amie spoke of was a common theme mentioned by almost all who described internal migration as an adaptation strategy. Regardless of their intentions for leaving, after arriving to the city, there were often no jobs available for them and most people ended up unemployed. For those who were able to find work, the opportunities were not what they imagined. The only opportunities available provided meagre livelihoods, such as taxi driving, trading farm products, and working as middlemen – where people could buy things in provinces and sell them in the market. The opportunities available consisted of mostly uneducated positions; however, Fatou noted that people with an education may be more likely to find a job.

Despite challenges in securing employment in the cities, it did not deter people from migrating there. After arriving, people would stay, two or often three years without a job, just sitting and brewing attaya, a local Gambian tea. The waiting was often described as being in limbo, where many would begin to feel napse, a unique psychological condition described earlier in this thesis. After waiting and still not being able to find employment, aspirations to go backway would begin to manifest as they felt as though they could find better opportunities abroad, often in Europe.

5.3.8 International Migration

Most of the respondents (eight participants) interviewed identified international migration as an adaptation strategy. During the interviews, research participants who discussed international migration did not distinguish between regular or irregular migration, because for Gambians, irregular migration is the only option. Throughout the conversations, international migration was only referred to as backway, the local colloquial term for irregular migration. When discussing

backway, Omar, a man in his 40s, commented on the difficulties in obtaining a visa for most Gambians, he said “they cannot get a visa, you would need a good job and a lot of money in your account to even be considered for a visa”. He then explained that even with money in your account and a good job, visas are so inaccessible to most Gambians so they do not even try to get a visa, but instead just opt to go backway.

Aminata, a woman in her 30s from Tabba said that people are not leaving because of a lack of land or available farms, but that it has become so difficult so they must go backway to make a living. She even expressed her own wish of being able to go backway with her husband, noting that “farming is not enough”. This sentiment was echoed by Amie who said that there was a link between climate change and people going backway. She explained “if the farm was doing well, they would be too busy to go to Banjul and go backway. A stable income means they would be okay”. Going backway was never the first response when faced with challenging environmental conditions, but rather the last step in a series of adaptation strategies, when no other opportunities presented themselves.

Although this study did not attempt to understand the particulars of how Gambians are going backway, since research on this phenomenon is currently underway and exists primarily through my supervisor, Dr. Cathy Conrad Suso’s work, many people wanted to discuss what they knew about it. This section does not describe a cohesive story, but rather integrates the fragments of conversations from the respondents who wanted to share their knowledge and experience with backway. For those who identified international migration as an adaptation strategy, it was mostly described with aspirations of reaching Europe where they hoped to find better

opportunities. To reach Europe, migrants often took one of two established backway routes: the Sahara route or the Canary Island route. The Sahara route consists of traversing other West African countries, reaching Libya, and taking a small boat across the Mediterranean into Europe, most commonly Italy or Greece. With the emergence of border externalization in Libya, the 'new' old route of the Canary Islands has become more commonplace. This route involves taking a similarly small boat either directly from The Gambia, or more commonly from Senegal, in attempt to reach the Canary Islands, Spain. More recently, a few respondents described new efforts to reach wealthy countries in the Middle East, notably Dubai, where they could find work in restaurants or hotels. It was noted that most of these opportunities involved low pay and long working days with the workers lacking any form of rights or recourse. Despite the poor working conditions and treatment of migrant workers, having the opportunity to work those long days, sometimes through excruciating conditions, was preferable to their home life where they could not do anything. They were happy to have work, regardless of the conditions.

Those who go backway often go to great lengths to fund the costly opportunity and it is often a decision made at a group or familial level that involves pooling money to send one person. Amie described how a family will sell a whole season's worth of products, just to send one person backway. She explained that if the person they send survives the perilous journey and arrives in Europe, it eases the responsibilities on the family members who remain, and that they might not have to farm as much or work as hard. Similarly, she spoke from her personal experience about a family she knew who sold one of their cows to send their son backway to help his brother who had already made the journey and arrived in Europe. When asked about why a parent would fund this endeavor, she said "they want to give their kids a better life, a better environment". Binta, a

woman in her 20s from Janjanbureh, also commented on how backway works within a family, and said that “in every family there must be one [that goes backway]”.

One particularly interesting account was that of Ebrima, which he shared upon my return to the beach where he worked on a second occasion. In the first interview, we briefly discussed backway, and why people were going, however he had much more to say on the second time there. After engaging in pleasantries, he told me that just that morning people had been planning to embark on a journey backway. He described what he saw, which was a group of people on the beach making a sacrifice for their journey. He recounted how they killed chickens and a goat as a sacrificial process to help ensure their safety while going backway. The throats of two chickens were slit, and left on the beach, allowing their blood to be washed into the ocean, ensuring the safety of those who were about to embark on the perilous journey. I had initially thought that what he was telling me may not be fully truthful and that he was telling me a story he thought I wanted to hear. When I expressed my shock, he took me down the beach and showed me where the sacrifice had occurred. The bodies of two chickens remained, along with a knife blade and remnants of blood were evident. He explained how the process of embarking and leaving for backway is deeply embedded in local culture and customs, and those who go will often first visit a Marabout seeking spiritual guidance and engaging in practices that are deemed to ensure their safety.

5.3.9 The Role of the Government

The role of the government, particularly the dissatisfaction with government efforts both regarding migration and climate change were described. For climate change, the participants

overwhelmingly felt as though the government was not doing enough to help Gambians and, in some cases, were making it worse. This was reflected in the sentiments from those in Sanyang, when Ousman spoke to the corruption of the government, giving preferential access to both the fisheries and the fish processing to Chinese-based companies, and not supporting the small-scale fishers in the communities. There was also a notable disconnect between what the government was saying versus their actions. Omar noted "the government talks a lot about climate change but doesn't do enough about it", although he did note that the government does support those who are displaced by sea-level rise. Regarding migration, Ebrima blamed the government for their lack of efforts to create opportunities for Gambians, which to him was perpetuating backway migration.

5.3.10 Climate Change as a Sole Driver of Migration?

For the respondents who discussed migration, it was clear once the conversation began that the environment was not the only factor contributing to the decisions to leave. The aspirations to go backway were often related to finding economic opportunities so that they could support both themselves and their families, but several other explanations were also given, ranging from a yearning to travel, not wanting to pursue traditional livelihoods, and wanting to pursue further education. It was clear that migration aspirations were deeply embedded in a cultural yearning to travel, without the capabilities to do so. For some, going backway was worth the risk of being able to experience something new, as Omar said, "they want to go anywhere".

A lack of economic opportunities was most noted as one of the reasons to leave, both internally and internationally. Baboucarr described that many people will leave their rural community and

go to the coast looking for opportunities. He said that they go without anything lined up and leave for the city not knowing what they will do once they get there. This sentiment was expressed particularly in young people, who felt as though they did not have any decent opportunities available to them by staying in their rural community or even in The Gambia. Omar expressed this sentiment when he said, “young people want to leave The Gambia, they want to make more money than what they can make staying here”.

Not wanting to pursue traditional livelihoods of fishing or farming was also described as a reason for why people leave, searching for the cities for new or different opportunities. Ebrima, a man in his 50s, made the point that young people do not want to pursue those types of livelihoods anymore. He described the rural regions as boring to young people, pointing out that they want new and more exciting opportunities that are only available in the coastal regions, he commented “there are no opportunities in the provinces, they are boring, it is not what young people want to do”.

Pursuing education was a common reason why people would leave the rural regions for the coast. The university is located there, and there are greater opportunities to learn and to receive higher education. Baboucarr noted that when young people go to the coast for education, they often do not return to their community, only doing so for festivals and funerals. For some, going backway was even an opportunity for education. Amie described that people would hear that they could receive free education in Italy from others who were successful in making it to Europe. She noted that in The Gambia, education is not free and that people would go backway because they wanted to learn, and could not afford the costly price.

5.3.11 The Future

When asking the final question about what the future holds given their experience with climate change and how they are dealing with it, those who responded did so with despair. It was clear that the respondents felt as though the future was going to be challenging and most were not hopeful or optimistic for themselves or future generations. Their responses often reflected the broader social, economic, and political landscape. When asking Omar, he asserted, “it’s not going to be easy” and explained that people will continue to go to the cities but that there are no opportunities in the cities, there are no companies or factories to provide livelihoods for Gambians, meaning that people will continue to leave by the sea [backway].

In rural Tabba, Muhammed, a man in his 50s said that the future does not have a good outlook. He commented that there is nothing they can do in the community; there are no alternative livelihoods. The only alternative to farming is making fans or cutting baobab, both of which cannot sustain their livelihoods. Ousman stated pointedly “we don’t have a future” and said that he tries not to think about the future for the sake of the children. When prompted if there was anything else he could do, he said “I just hope there are more people like me who think about [climate change]”. This sentiment was echoed in rural Gambia, and in describing the impact of climate change on farmers in rural Gambia, Binta noted that “people feel stuck”, and Fatou stated “who will remain will suffer the most”.

5.4 Discussion

The results show that Gambians are experiencing negative impacts from climate change. Whether located on the coast or up-country in the rural communities, every person interviewed

described how climate change is impacting their community. On the coast, there were concerns for sea-level rise, coastal erosion, and the future sustainability of their fisheries. Land-based impacts were mostly related to increased temperatures, drier soils, and the impact on subsistence agricultural livelihoods. Various climate adaptation strategies have been implemented, from physical efforts of replanting trees to increasing education around climate change. Although the conversations were situated around climate adaptation strategies, when discussing how Gambians are adapting, most people segued the conservation to migration without being prompted. Regardless of their location in coastal, rural, or urban neighbourhoods, those who were interviewed saw migration as an adaptation strategy to deal with the effects of climate change.

It is evident that in The Gambia, there is a connection between climate change and irregular migration. The connection, however, is not a simple nor direct one. When experiencing mal effects from climate change, Gambians are not immediately planning their journey backway, but rather, they are engaging in a gradual process in attempt to improve their livelihoods (Zickgraf, 2021). Their first efforts are situated in locally based adaptation strategies, such as improving farming techniques, or building barriers to keep the ocean at bay as sea-levels continue to rise. Unfortunately, as expressed by many, in-situ adaptation methods are no longer enough to sustain their livelihoods and withstand the impacts of climate change, causing people to leave for the cities on the coast. Once they arrive to the city, there are no opportunities, however, they do not leave. Instead, they sit, brewing attaya and waiting, hoping to find something. This waiting period was often characterised by napse (Conrad Suso, 2022) and feelings of hopelessness and desperation, wanting to do anything instead of nothing. These complex feelings and lack of

opportunities eventually led to aspirations of going backway (Conrad Suso, 2019). It is only then, usually after waiting several years before the decision to go backway is made.

It is unsurprising that local in-situ adaptation strategies are no longer enough, with the impacts from climate change worsening (IPCC, 2018, 2022) and limited capacity for adaptation (Gomez et al., 2020), it is becoming increasingly challenging to adapt in The Gambia and individual efforts are unlikely to be sufficient. In the IPCC's (2022) Sixth Assessment Report, *Climate Change 2022: Impacts, Adaptation and Vulnerability,* it has been identified that soft limits to human adaptation have been reached. It has also been identified that gaps exist in climate change adaptation due to "widening disparities between the estimated costs of adaptation and documented finance allocated to adaptation" and are most profound in populations with lower income (p. 20). In facing some of the greatest impacts from climate change yet without the financial capacity to adequately adapt, in-situ climate change adaptation is becoming increasingly unfeasible in The Gambia without drastic system changes. The inability to adapt highlights the need for both governmental and non-governmental institutions to intervene and assist with adaptation strategies, with greater funding and efforts to secure the sustainability of Gambian livelihoods to avoid a humanitarian crisis. By increasing the adaptive capacity of Gambians, it will increase their resilience, and allow for migration decisions to be made with greater agency. Researchers are increasingly identifying the potential for trapped populations to develop due to the high costs and resources associated with migration, rendering this vulnerable group as immobile (Black & Collyer, 2014; Foresight, 2011; Rigaud, et al. 2018; Nawrotzki & DeWaard, 2018). As Carling (2014) identifies, involuntary immobility is the aspiration to migrate without the capability to do so. In the case of The Gambia, the aspiration to migrate was

widely noted, yet the capabilities to do so through regular means (i.e., a visa) are limited and inaccessible to most. One participant did allude to the idea of being trapped by expressing that people feel stuck, but in The Gambia, involuntary immobility may not manifest as described in current narratives. Despite parts of the conversations veering to the idea of trapped populations or involuntary immobility as climate change intensifies, more people spoke about the intensity of aspirations to migrate.

In The Gambia, migration has such deep social and cultural roots (Conrad Suso, 2019), that if they aspire to migrate, they will find a way to undertake the journey. It was evident that many Gambians aspired to migrate, but since their capabilities are limited due to the elusive visa, backway has developed in part to circumvent becoming trapped or involuntary immobilised. This point was further exemplified by the various ways in which people supported the journey to go backway, often with the moral and financial support of their families. A lack of capability to migrate is often linked to deep and persistent poverty that prevents undertaking such as costly endeavor (Black & Collyer, 2014; Foresight, 2011; Rigaud, et al. 2018; Nawrotzki & DeWaard, 2018), however, in The Gambia, to fund and coordinate the backway journey, the responsibility seldom fell solely on the person who would make the trip. It was not uncommon for the decisions to be made at the familial level, where a joint decision was made to send one person backway. It also meant that funding the costly journey was easier, as resources were often pooled to send that person. With Gambians identifying migration as an adaptation strategy to climate change, it could be expected that as projections of climate change worsen, irregular migration could increase as a strategy to avoid becoming trapped.

Unsurprisingly and consistent with the literature, climate change was not viewed as the sole reason in why Gambians are pursuing irregular migration (Piguet et al., 2011; Waldinger, 2015). Climate change was just one of many factors leading to irregular migration, and was considered alongside other factors, in this case, most notably economic constraints (Black et al., 2011; Foresight, 2011; Rigaud et al., 2018). It was clear that climate change was considered as a driver of migration in itself, but that the link between economic constraints facing most communities was so inextricably tied to climate change, it was challenging to view the two as separate entities. In most cases, the 'constraint' itself was because of climate change. This was most notable in the subsistence agricultural communities, but climate change also exasperated constraints in the fishing communities. The results from this study have implications for both migration and climate change governance. Understanding how communities are adapting to climate change can help provide insights into how both governmental and non-governmental institutions can assist in adaptation efforts, but it is important to recognise that with such culturally embedded aspirations to migrate, development efforts that are rooted in containment initiatives are unlikely to be effective solutions.

With no legal protections existing for so-called climate or environmental "refugees" (Nishimura, 2015; Gemenne, 2015), yet the majority of Gambians viewing migration as an adaptation strategy in dealing with the impacts of climate change, it poses grave consequences for the migrant. If people are migrating, especially irregularly, without protection, it increases the precarity endured by the migrant throughout the journey, but also in the destination country where they are unable to claim asylum. Facilitating adaptive migration could help reduce potential vulnerabilities faced by migrants (McLeman & Smit, 2006; Vinke et al., 2020) while

allowing migration to be governed and facilitated by experts and policy makers. Migration as an adaptation strategy has been recognised as a transformational approach, with capabilities to build long-term resilience to would-be migrants (Foresight, 2011). Facilitating migration as an adaptation strategy would allow Gambians to migrate with dignity before a crisis situation develops (Warner et al., 2015).

In gaining a wholistic understanding climate change adaptation strategies without mentioning migration, a few limitations presented themselves and are worth discussing. Although conducting interviews from a climate change adaptation perspective proved to be advantageous in avoiding leading questions that make a direct connection or link between climate change and migration, it also led to gaps in the research. One of the gaps is the connection between involuntary immobility and climate change. Although a few people who were interviewed did bring up considerations related to involuntary immobility, if the framing of the research had focused on migration, it would be possible to get greater elaboration, and more responses on the potential connections between climate change and involuntary immobility.

5.5 Conclusion

In this study, it was clear that Gambians view migration as a valid option when considering climate change adaptation strategies. Migration as an adaptation strategy did not only include internal rural-to-urban migration, but many indicated that people are also migrating irregularly, or going ‘backway’. It must be acknowledged that although viewing migration as an adaptation strategy, it is not, nor will it ever be, the sole reason for why Gambians are choosing to go backway. Efforts to address climate change are needed both from the national government but

also from non-governmental institutions or organisations to help increase the adaptive capacity of Gambians. Due to the social and cultural embeddedness of migration in Gambian culture, efforts that are rooted in containment development will not be fruitful, but instead efforts must ensure those who voluntarily remain are protected with the ability to address the worsening impacts from climate change.

Chapter 6: Overall Conclusions

6.1 Summary of Thesis

This thesis considered connections between climate change and migration through a case study in The Gambia and how it manifests more broadly in national policies of West African countries. The discourse analysis of climate change policies in West Africa shows that at the national level, considerations for migration as an adaptation strategy are being incorporated in policies and accepted and encouraged by entities such as the United Nations Framework Convention on Climate Change. Several themes were analyzed in the discourse analysis, including how migration is being framed, displaced populations / forced migration, planned relocation, irregular migration, containment development and funding sources of the policy documents. Most policies identify migration occurring because of climate change, but the extent of the discussion varied widely amongst each policy from a singular mention to an integrative approach. The link between climate change and migration was most often described through forced displacement, though adaptive migration was acknowledged through planned relocation in several instances. If adaptive migration is to be realized through planned relocation or other strategies identified earlier in this thesis, much greater discussions are needed around how this can be incorporated within their adaptation policies, how it will be implemented and where planned relocation will occur.

The second part of this thesis aimed to understand the framing of irregular migration when considering climate adaptation strategies through empirical research in The Gambia. Semi-structured interviews were conducted with Gambians living in different environments, from

those living in rural subsistence agricultural communities to urban neighborhoods and coastal communities. The research attempted to gain a wholistic understanding of climate change adaptation where migration narratives could be extracted. The participants described the myriad of impacts they are experiencing from climate change ranging from sea-level rise along the coast to a warmer climate causing dry soils in rural communities. In addressing adaptation, a variety of strategies were mentioned, however, most participants were quick to identify migration as a way of dealing with the impacts and consequences of climate change facing their communities. Although almost all participants identified that internal rural-to-urban migration was used as an adaptation strategy, many also described international migration through irregular means. Irregular migration was never the first strategy taken when faced with environmental stress, but rather the last step in a gradual process after a series of efforts including in-situ adaptation and internal migration. It was evident that in the minds of Gambians, migration is in their repertoire when considering climate change adaptation strategies.

6.2 Recommendations

With migration being considered both at the individual and policy levels as an adaptation strategy, legally binding frameworks are needed to hold countries accountable in facilitating migration with dignity to address gaps in existing legal protections for environmental migrants and to prevent humanitarian crises. Adaptive migration should be realized as a valid adaptation strategy, allowing households to choose from a wide range of adaptation strategies that are tailored to their unique situations. Adaptive migration can increase resilience, diversify livelihoods, reduce, or spread risk, and even benefit those who remain via remittances.

Regardless of the critiques of adaptive migration, in the not-so-distant future, migration will become the only option for many as climate change worsens. However, in acknowledging this, it is important to recognize that not everyone has the capacity or desire to migrate. It is often the most vulnerable populations who find themselves trapped and without the resources to adapt to climate change. In facilitating climate change adaptation through a human rights perspective, it is crucial to also provide protection and reduce vulnerabilities for those who cannot migrate and those who choose to stay.

In The Gambia, the current climate change policy does not adequately address migration as an adaptation strategy, yet it was evident from the empirical research, that when considering adaptation strategies, Gambians viewed migration as one of those strategies. If the country is to recognize adaptive migration as a valid strategy, addressing migration more wholistically in future climate change policies is a crucial first step. In the discourse analysis, planned relocation was the most common form of adaptive migration identified in the policies of other West African countries, however, if adopting this adaption strategy, ensuring that communities are integral in the planning process is a key to prevent further harm to those who are relocated. Like above, protection measures are also needed for those who do not migrate, ensuring vulnerable populations are secure and are not facing detrimental consequences of climate change.

As is the case in The Gambia, and in many other countries around the world, those who have contributed the least climate change, are the ones who will face the gravest impacts and consequences from it. The global community must act to ensure human rights are upheld and vulnerable populations are protected.

6.3 Future Work

Future work could contribute to more empirical studies looking at the connection between climate change and migration, particularly using the methodology laid out in this thesis. Understanding climate change adaptation without asking about migration allowed for a clear understanding of how Gambians view migration in an adaptation context without being clouded by the multiple factors that cause migration. This methodology could be employed through other empirical case studies to understand if similar narratives of migration are prevalent in climate change adaptation strategies across different countries.

Much greater work is also needed to understand how adaptive migration can be implemented across international borders. Although in some cases, internal adaptive migration may be adequate, most countries will face similar environmental stressors internally, negating improved outcomes and necessitating the need for migration on an international scale. Given current migration narratives and policies that are geared towards criminalizing migrants and keeping people out, significant efforts are needed to understand how adaptive migration can take place on a global scale and what is needed to engage and attain cooperation from countries in the Global North. Adaptive migration includes both anticipation and planning, but since it has not been implemented, further research and efforts to understand how it will materialise are integral to the success of a pro-active approach. Establishing adaptive migration before it becomes a necessity will ensure more people are secure, reducing vulnerabilities, and preventing crisis situations.

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Appendix A: Interview Questions and Prompts

Q1. Are you noticing changes in the environment?

Prompts:

a. Are you seeing changes in the weather?
b. Are you seeing changes in the temperature?
c. Are there changes in the rainy or the dry season?
d. Are you seeing changes of the land?

If NO

Do you think The Gambia will experience any changes in the environment in the future?

a. If yes – how will people manage these changes in the future?
b. If no – thank you for responding to my questions.

If YES

Q2. What places in The Gambia are experiencing changes?

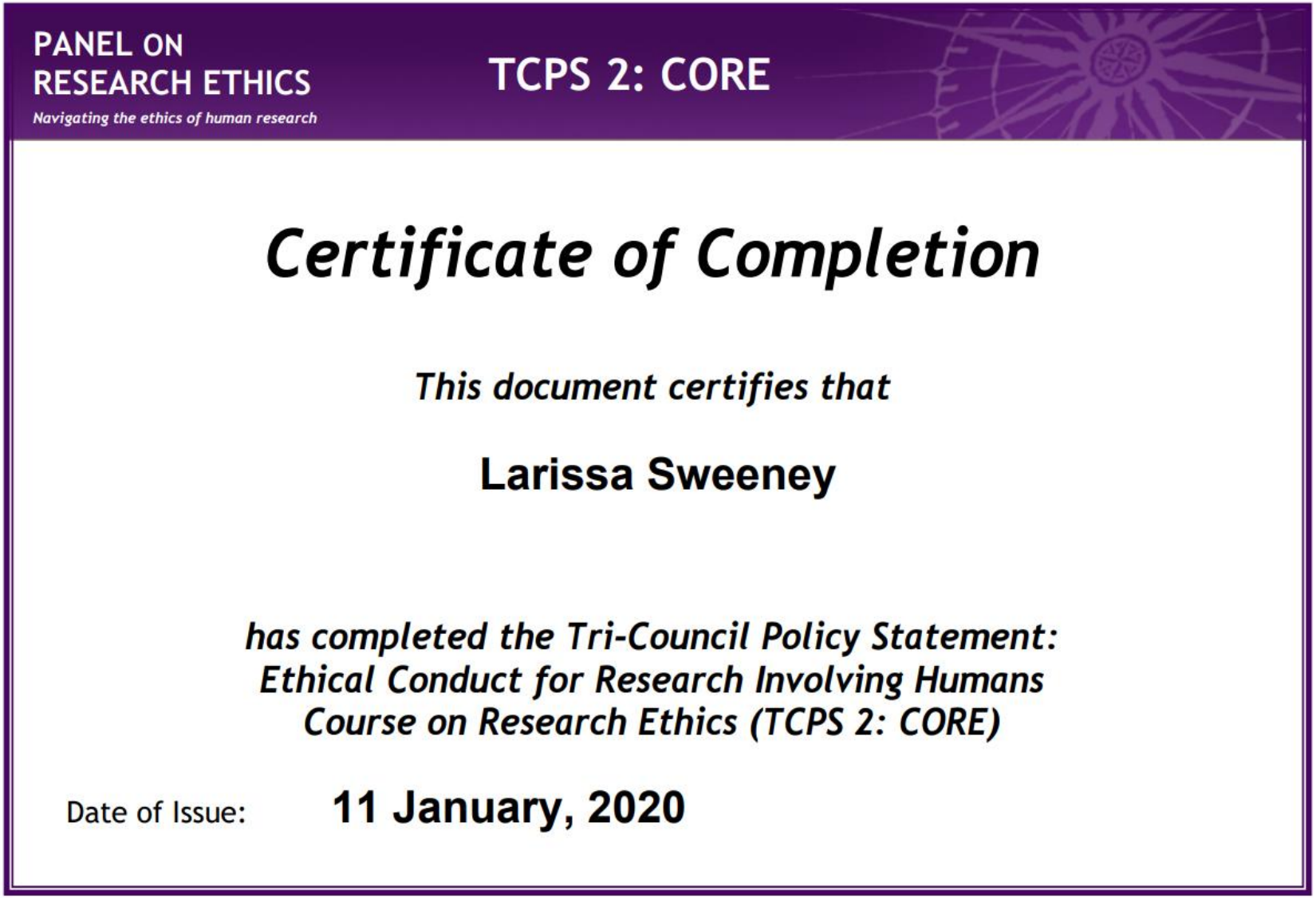
Q3. Are some places experiencing more change than others, or are they all changing the same way?

Q4. How are people dealing with these changes?

Prompts: specific to the changes they identified

Q5. What does the future look like for Gambians?

Appendix B: Tri-Council Policy Statement: Ethical Conduct for research Involving Humans Course of Research Ethics (TCPS 2: CORE)



PANEL ON RESEARCH ETHICS

Navigating the ethics of human research

TCPS 2: CORE

Certificate of Completion

This document certifies that

Larissa Sweeney

has completed the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE)

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