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How Does Climate Change Play a Role in Migration Decisions? The Case of Bangladesh

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Abstract

Climate change has become a topical concern for most people across the globe with concern on its impacts on the society, government, businesses, and life in general. Coupled with the growing number in both internal and international migration flows, there is growing research to understand the relationship between climate change and migration. However, there are varied reasons that influence migration decisions. Over the years, research into the migration discourse has demonstrated how push and pull factors (social, political or economic) influence migration. While this may be the case, it is also relevant to understand the connections climate change may have with such push and pull factors. There have been projections of large migration flows from mostly developing countries to developed countries in the near future if nothing is done about the current climate change problem. And in the context of low-lying countries like Bangladesh, where the majority of the population's livelihood is dependent on agriculture, climate change impacts are common which unfavourably affect these people. Also, flooding is a common event and this impacts around 80% of the land. Every year, one or more natural disasters disrupt people's lives in various parts of the country in the coastal areas (GoBMEF, 2005). Moreover, due to its unique geographical location coupled with the large population size, Bangladesh is considered as one of the most vulnerable countries to climate change globally. Nevertheless, scholars continue to debate in both international and national policy documents whether to grant protection to such migrants or categorise them as "environmental refugees" or "climate change migrants". As a response, this thesis aims to investigate how climate change plays a role in migration/migration decisions. Further, by using the concept of climate justice, the study seeks to explore how climate change challenges the basic human rights of those affected.

Data was collected through qualitative method in the form of semi-structured interviews by drawing on the 'ordinary people' perceptions of this issue and not the migrants themselves who have experienced any climatic stressors (monsoon flooding, glacial lake outburst floods, earthquakes, rising sea levels, drought, salinized agricultural land, desertification, increasing water scarcity and food insecurity). The findings suggest that climate change intertwines with other push and pull factors to influence migration. Therefore, climate change plays both a direct and indirect role in migration. Direct role in the form of cyclone, tsunamis, etc. and indirect role in the form of coastal erosion, sea-level rise, extensive droughts, heavy flooding, changing rainfall patterns and salt-water intrusion. Also, the study found that the issue of climate change

in Bangladesh and how people cope with the situation can be linked to social, economic and political inequalities in the society. Consequently, this challenges the basic human rights of the marginal poor who are those mostly affected since they lose their homes/habitat, livelihood and even lives in worst/severe cases. Finally, it revealed that there is some form of unequal power relations on how government institutions deal with the climate change issues/situation further exacerbating the lives of those who are highly at risk/vulnerable.

Key words: climate change, climate justice, migration, migrants, vulnerability, climatic stressors, push and pull factors.

List of Abbreviations

BBS	Bangladesh Bureau of Statistics
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
CDMP	Comprehensive Disaster Management Programme
COP	Conference of Parties
DRR	Disaster Risk Reduction
GHG	Greenhouse Gas
GoBMEF	Government of Bangladesh Ministry of Environment and Forest
IDMC	Internal Displacement Monitoring Centre
IDPs	Internally Displaced Persons
IGOs	Intergovernmental Organisations
IOM	International Organisation for Migration
IPCC	United Nations Intergovernmental Panel on Climate Change
MDGs	Millennium Development Goals
MDMR	Ministry of Disaster and Management and Relief
NAPA	Adaptation Programmes of Actions
NRC	Norwegian Refugee Council
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OHCHR	Office of the High Commissioner for Human Rights
PPP	Polluter-Pays Principle
TV	Television
UDHR	The Universal Declaration of Human Rights
UN	United Nations
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees

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CHAPTER ONE: GENERAL INTRODUCTION

1.0 Introduction

Climate change is one of the contributing catalysts of inequality in health, well-being, and the livelihood of people. Its impacts are likely to increase and in the worst-case scenario, who will be protected? The United Nations Intergovernmental Panel on Climate Change (IPCC) notes that such impacts include; the loss of homes, land, and livelihoods due to environmental degradations such as rising sea levels, floods, droughts, famine and hurricanes. One of the emanating issues is climate induced migration and its counterpart, 'climate refugees' (IPCC, 2014). According to the United Nations (UN), the number of international migrants has been rapidly increasing over the last fifteen years, shooting up from 173 million people in 2000 to more than 240 million in 2015, with most of the migrants coming from middle-income countries (UN, 2016).

However, the reasons why individuals or groups migrate within or across borders, and the extent to which climate change may be a contributing push factor in the migration process, are seen as challenging and sensitive topics (Rigaud et al., 2018). Generally, the motivation for individuals' migration is by socio-economic factors, such as aspirations for greater income, unstable political institutions, conflicts, abuse, persecution, and or to reunite with family members who have already migrated. There are also possible environmental disasters and climate change stressors that serve as factors in migration decisions of individuals. However, quantifying environmental migrants is a bit challenging due to the fact that slow-onset climatic processes such as drought and sea level rise, and sudden onset climatic events such as monsoon and hurricanes are intertwined with other multiple drivers of migration. Notwithstanding this view, according to Internal Displacement Monitoring Centre (IDMC), new displacements recorded in 2019 was 33.4 million across 145 countries which is the highest figure since 2012. Out of this number 24.9 million was due to disasters out of which 23.9 million were climate change impacts related making up for more than 95%. Essentially, migration serves as an adaptation mechanism in the face of vulnerability for these migrants (Drabo & Mbaye, 2015; IDMC., 2020a, 2020b; R. McLeman & Smit, 2006).

While the public debate on climate change and migration/climate migrants appears to be overwhelming and have produced different scenarios or views, there is a growing need to

critically reflect on the connection between climate change and migration. In addition, Piguet, Pecoud, and Guchteneire are of the view that two main interconnected arguments arise in this discourse. The first concerns the gravity of environmental and climatic factors in migration and their relationship to other push or pull factors (Piguet, Pecoud, & Guchteneire, 2011) (cf. Drabo & Mbaye, 2015). The push or pull factors can be social, political or economic in nature. To understand the role of the environment in migration dynamics, it is important to analyse how and why people are vulnerable to climate change, “as well as examining the different strategies they develop to cope with or adapt to environmental stress – migration being one among such strategies” (Piguet et al., 2011). The second argument is about the political framework in which such migration flows should occur and ways to treat the people who migrate in connection with environmental factors. This suggests a discussion on the possible protection to give to those who are most vulnerable in such situations and the “responsibilities of states and of the international community in providing such protections” (Ibid, p. 1).

Moreover, there are varied definitions for people who move due to environmental factors. The term environmental refugee was first captured in 1985 in UN Environment Programme (UNEP) by the researcher El-Hinnawi (1985) who defined these people as those “who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life”. Another notable definition is by Myers and Kent, who describe environmental refugees as “persons who no longer gain a secure livelihood in their traditional homelands because of environmental factors of unusual scope, notably drought, desertification, deforestation, soil erosion, water shortages and climate change, also natural disasters such as cyclones, storm surges and floods” (Myers & Kent, 1995).

Although, many organisations such as the United Nations High Commissioner for Refugees (UNHCR), United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and many migration researchers have expressed concerns that the term is problematic. For instance, separating environmental factors from other drivers of migration is challenging and also the term implies that environmental change solely contributed to migration without any economic or political factors (Black, 2001; McGregor, 1992, p. 158; McNamara, 2007). The definition by IOM which states that, “environmental migrants are persons or groups of persons who, predominantly for reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are obliged to leave their habitual homes, or choose to

do so, either temporarily or permanently, and who move either within their country or abroad” (IOM, 2007, pp. 1, 2) captures the fact that the nature of such migration process may take place in the context of slow-onset climatic events and processes or sudden-onset climatic events and processes, and also how these may interact with other socio-economic or political factors.

Notwithstanding the above statements, while climate change is displacing or moving people from their physical space, their basic human needs are being misplaced as well. As a result of these issues and the difficulty in isolating climate change from other factors driving migration, it is necessary to clearly understand the underlying elements and different channels at work in the climate change and migration discourse. Over the last years, increasingly more research on climate change and migration have started to focus on migrants’ own stories/perspectives. Following this trend, and by applying a qualitative research method, this study explores the ‘ordinary people’ perspectives about climate change and migration. Specifically, this will be done by examining the perspectives of Bangladeshis living in Norway. Research through ordinary people’s experience has been a tradition in social science, for example in research on nationalism and nationhood. The focus on ordinary people indicate a tradition and general perspective in social science, that values the bottom-up, everyday life and experience (Antonsich, 2016; D. E. Smith, 1987). However, this research explores ‘ordinary peoples’ perspectives, by focusing on young people as research informants. Therefore, ‘ordinary people’ in this research are all young people. Here, for such a country projected as climate change prone, this research seeks to gain insight into the current challenges surrounding climate change and migration. Additionally, the study will consider how the concept of climate justice and supporting theories push and pull factors in migration and unequal power relations can be understood in the theoretical chapter and explore how they can be applied as evaluative tools in a social context for this case. This will further help to widen our understanding of the dynamics between climate change and migration.

1.1 Background

Additionally, in recent years, issues of climate change and human mobility have made sensational news in both academic research and international organisations, and political institutions. There is a growing base of literature on displacement of people within and across borders due to climate change, for instance research by (IOM, 2014) and (Kolmannskog, 2009).

Although there is not a mono-causal relationship between climate change and migration, according to International Organisation for Migration (IOM);

[E]nvironmental and climate-induced migration is a multicausal and multidimensional phenomenon. Environmental and climatic factors are both drivers and pull factors, and they are mediated by economic, social, political and demographic aspects. All these different dimensions together define a community and an individual's resilience and vulnerability (IOM, 2014, p. xi).

In other words, environmental challenges and climate change play a role in the displacement of people in addition to other existing social and economic factors. Natural disasters and environmental degradation have contributed to migration in the past, and this is not different in the present or the future. Scientific projections suggest that climate change might have major impacts on human mobility (Ibid, p. 5) in the coming years.

Similarly, in addition to Piguet et al. (2011) view on the climate change and migration discourse, some authors incline to their view by arguing that the correlation between climate change and migration is multifaceted. For instance, (Loneragan, 1998) argues that climate change as part of an environmental process is interconnected with political, economic, social and institutional structures. In response to this, various views and approaches have been evolving to fill the knowledge gap in the climate change and migration discourse. Two of such approaches are the “maximalist approach” and the “minimalist approach”. The maximalist approach “tend(s) to extract the environmental variable from a cluster of causes and proclaim the associated out-migration to be the direct result of environmental degradation” (Suhrke, 1994, p. 477). Contrastingly, the minimalist approach suggests that migration is a complex phenomenon, and “environmental degradation by itself is not an important cause of migration, nor can it be quantified easily ... to isolate the relative weight of individual variables” (Ibid, p. 475). However, there are still lingering debates on how to best approach the issue to best resolve challenges such as separating environmental changes/degradation from other drivers of migration and securing the protection rights for such people within the climate change and migration discourse.

Understanding the aforementioned claims on how climate change plays a role in migration from the perspectives of ‘ordinary people’ is worthwhile. Therefore, this research seeks to assess the perceptions of the citizens on how climate change plays a role in migration within the context of their country.

Additionally, the early reports and the discourse on climate change and migration has increased awareness of the connection between climate change and human mobility, and the need for protection. This has given a “human face” to the climate change debate and a voice to environmental migrants (IOM, 2014, pp. xi, xiii). Moreover, according to The Fifth Assessment Report (AR5) of the United Nations Intergovernmental Panel on Climate Change (IPCC), in the coming years there is the probability of an increase in the number of displaced people and populations due to environmental impacts. Those without resources to migrate will be highly exposed to extreme weather events, especially developing countries with low income. The assessment further states that the exposure rate of many human systems and ecosystems to climate change variability such as heat waves, droughts, floods, cyclones and wildfires is on the rise (IOM, 2014, pp. 8, 16) and this is likely to cause displacement now or in the future. These variations in perspectives and the absence of a clearer understanding of the problem have created a policy gap in understanding and managing the climate change and migration issue, although human populations continue to be displaced due to climate change stressors and impacts such as natural disasters and resource scarcity, depriving them of their basic human needs. Hence, this study aims at understanding the perspectives of ‘ordinary’ citizens in light of this problem. While doing this, it will also assess how climate change plays a role in challenging the basic human rights of those affected.

1.2 Theoretical Terminology

This study builds primarily on the concept of climate justice. Using a climate justice approach as the lens for understanding climate change and migration is well suited and relevant for this research work as it goes beyond looking at climate change just as an environmental issue but also a social issue. In addition, this concept will be supported by push and pull factors in migration studies and unequal power relations. Although climate justice inspired me a lot as a concept for this thesis, it is usually talked about in light of social justice which can be linked to social inequality, unequal power relations, race and ethnicity. However, push and pull factors and unequal power relations will be explained in the theoretical chapter (chapter 4). In order to give the reader a general introduction to the theoretical framework for analysis, in the next paragraph, readers will be briefly introduced to the main concept of ‘climate justice’.

1.2.1 Climate justice

The concept of climate justice understands global climate change not only as an environmental issue but also as an ethical, legal and political issue. It incorporates issues of environmental and social justice, in light of the issues and impacts of climate change by examining issues such as equality, human rights, collective rights and historical responsibilities for climate change (Adelman, 2014; Adger, Paavola, Huq, & Mace, 2006; Cameron, Shine, & Bevins, 2013). Why is climate justice so important? In recent years, there is an ongoing discussion on how the impacts of climate change - both short-term and long-term is depriving the most vulnerable population of their basic human rights as enshrined in The Universal Declaration of Human Rights (UDHR). New research shows that the greatest impacts of climate change are on those people least responsible for causing it (Adger et al., 2006, p. 3). As a result, vulnerability to climate change is distributed unevenly and a greater percentage of people in the global South will suffer more than their counterparts in the Global North.

Coupled with other pull or push factors such as conflict, human rights abuse, poverty, hunger persecution, economic stability, better job opportunities, etc. people in the global south are forced to migrate both internally and internationally as a survival strategy. This has brought to the fore, concerns for equality, fairness, and justice currently than before. As such, analysing climate change problems connected to environmental migrants must give more attention to issues of social injustices and how to forge ahead globally to tackle climate change issues now and in the future. Besides this, the climate justice approach provides a unique opportunity to examine and confront the status quo by analysing how institutional structures and politics may play a role in contributing to the presence of climate change and migration/displacement of most vulnerable populations. This is because the climate justice framework places a greater emphasis on how the role of climate change directly or indirectly leads to social problems that affect the basic human rights needs of the most vulnerable to climate change stressors. The climate justice approach is therefore well suited for this work because it looks at the heart of the problem by focussing not only on obvious outcomes but on the underlying causes which explain why the urgent need to mitigate greenhouse emissions that leads to negative consequences of climate change. By doing so, this research contributes to a solution-oriented knowledge base of widening our understanding of the dynamics between climate change and migration.

1.3 Problem Statement

The purpose of this research is to assess the perceptions of ‘ordinary people’ on climate change and migration. Newer estimates by researchers suggest that climate change is becoming a major factor of displacement and a contributing factor for international migration. Climate change stressors such as floods, tornados, drought, resource scarcity, and hurricanes have forced people to migrate to new places and to integrate into new cultures. It has been estimated that there will be a substantive rise in the number of asylum seekers in Europe and other parts of the world not only as a result of war and violence/persecution but also by climate change (see also IPCC, 2014 & Amundsen, 2011). In the report by the Norwegian Refugee Council (NRC), the United Nations High Commissioner for Refugees, António Guterres, noted that “[w]hat we are now seeing are more and more people that are forced to flee because of lack of water, because of lack of food, because of extreme poverty and many of these situations are enhanced by climate change” (NRC, 2011, p. 6). The issue of climate change needs to be consciously pursued and tackled to ensure the protection of the basic rights of every human being, especially the most vulnerable population. Therefore, this study seeks to better understand how climate change plays a role in migration by exploring individual’s perspectives on the relationship between climate change and migration.

1.3.1 Research Questions

The primary objective of this research is to examine the perceptions of ‘ordinary people’ on how climate change plays a role in migration. In order to achieve the primary objective and to remain focused, specific questions to achieve this are;

- (i) How do ‘ordinary people’ perceive climate change?
- (ii) How do the ‘ordinary people’ perceive the role of climate change/environmental degradation in migration?
- (iii) How does the adverse impacts of climate change affect the basic human rights of the migrants?

1.4 Motivation for Research

Whiles growing up in Ghana as a teenager, I have always loved to study and work on social and human development issues. During my previous studies I focused on subjects on human rights, classical history and civilisation, globalisation, and education. Also, having participated in various lectures and courses during my studies I gained more insight into human-

environment relations. I was introduced to interesting analytical approaches to the impacts of climate change both in the Arctic and other parts of the world, and the disparity of vulnerability between the global North and the global South. These subject areas introduced me to ask questions on human dimensions of climate change and migration, the likely violations of human rights stemming from such displacement, the protection of persons displaced by climate change, etc. I began to see the challenges in separating environmental impacts from other factors of migration. This thesis positions itself in this context by using the concept climate justice as a lens to understand the narratives of these issues in the climate change and migration discourse and at the same time finding long-term solutions across the world. The climate justice concept will be supported by the push-pull theory in migration studies and unequal power relations concept. Through a theoretically based analysis, the study aims at better understanding the perceptions of young people; firstly, on their knowledge of climate change and how climate change plays a role in migration process. It will also explore how basic human rights are challenged in this context.

Besides the role of these approaches, at the time of writing this thesis more and more people are being forced to flee because of extreme drought and scarcity, and extreme poverty. Many of these situations are enhanced by climate change (NRC, 2011). Although, I am an international student with an African background, the choice of Bangladesh as the study area is partly because of their vulnerability to the impacts of climate change as a geographically low-lying state and the main economic activities/livelihood (agriculture) of most citizens. Also, there are discussions from international bodies on how to assist and support such vulnerable populations to build resilience for climate change adaptation.

Finally, I hope to contribute to the discourse on climate change and migration, by studying the relationships between climate change and other factors of migration, and issues regarding the basic human rights of the people involved.

1.5 Structure of the Research

This research is organised into six chapters. Chapter one provides an introduction to the entire study. It provides a background to the study, outlines the research objective and research questions guiding the study. Chapter two contextualizes the subject on climate change, migration and the projected environmental migrants. It presents the socio-economic challenges

of the impacts of climate change and gives an overview of both the slow onset and sudden onset of climate change stressors. The methods and techniques used to undertake the research are discussed in chapter three. Chapter four provides the theoretical underpinning of this research. This chapter presents the main theoretical approach which is the conceptualisation of climate justice in the climate change discourse and supported by the push-pull theory and unequal power relations concept. While chapter five focuses on the presentation of the empirical findings, in chapter six I will further analyse and discuss the empirical findings in relation to my research questions and focus. Finally, chapter seven will be a summary of the study, highlight findings in relation to the problem statement, and some concluding remarks.

CHAPTER TWO: LITERATURE REVIEW

“...just as the environment is only one among many factors that drive migration, migration is also only one among many possible responses to environmental change” (IOM, 2016, p. 11) or adverse effects of climate change.

2.0 Introduction

Environmental/climate related impacts are sometimes embedded in other push and pull factors that lead to migration. Unfortunately, the root cause of migration is not always easily explained or accounted for entirely. Migration has been used as an adaptation strategy in the past in countries that face extreme weather conditions, however, currently there is a new twist to this due to the sudden change in the climate that has built up over the years. This is challenging and problematic for geographically low-lying states and most countries in the Global South who lack the adaptive capacity to climate change, and these may have impact on growth and development. This contextual background is crucial for obtaining a comprehensive understanding of climate change and contemporary migration processes.

When trying to understand the contemporary processes of migration in relation to climate change and the consequent environmental migrants, it is therefore relevant to examine the factors of migration; to carefully investigate the push and pull factors and how environmental events/climate change play a role in migration process. This chapter therefore briefly contextualises climate change and migration, provides a background understanding of the climate change and migration nexus, and the proceeding migrants in this context. Further, it gives an overview of triggers of forced migration by highlighting both the slow onset and sudden onset of climatic stressors and the blame game of climate change. It presents a brief background of the climate change and migration nexus in the case of Bangladesh and a summary of her government’s efforts towards climate change mitigation.

2.1 Understanding the Context of Climate Change and Migration

Examining the context of climate change and migration allows for a better understanding of contemporary issues with relation to environmental migrants. Unfortunately, the root causes of the adverse impacts of climate change cannot always be easily accounted for or explained. In any given region, environmental migration varies in scale and magnitude. Environmental factors can have different impacts on internal, regional or international migration depending

on the temporal impact, for instance of the slow onset or fast onset events, of the environmental stressor (Kniveton, 2009). International migration linked to environmental shocks and stressors can increase or decrease based on the psychological and socio-economic challenges of migration, specifically for those exposed (Kniveton, 2009; Stal & Warner, 2009, p. 5).

Over the years, some studies for instance (IOM, 1992, 2014; R. McLeman, 2011; R. McLeman & Smit, 2006; R. A. McLeman, 2014), have proven that environmental triggers and drivers may have the ability to affect the mobility of large populations in the future. However, the decision to migrate may be influenced by different kinds of triggers or drivers. This could be from rapid onset disasters or slow onset events. For instance, the rapid onset disasters have different consequences for human mobility compared to slow onset like desertification, or the adverse impacts of climate change (Stal & Warner, 2009, p. 6). Therefore, it is important to understand the potential impact of environmental triggers and drivers from climate change on human mobility.

2.2 Contextualising Climate Change, Migration and Environmental Migrants

The relationship between climate change and human mobility is a highly debated issue – economically, politically and morally (Hastrup & Olwig, 2012, p. xi). That being said, climate driven migration is not a new phenomenon, but more of a rediscovered issue. This is because, for centuries, people have been migrating in response to unfavourable environmental changes, often seasonally. Such movements are part of the livelihood of nomadic people and pastoralists. However, it was only in the last twenty (20) years that the international community began to gradually recognise and accept the relationship and implications that the changing climate and environment has on human mobility (Laczko & Aghazarm, 2009, p. 13).

As early as 1990, the first report by (IPCC, 1990, p. 20) noted that, “the greatest single impact of climate change could be on human migration – with millions of people displaced by shoreline erosion, coastal flooding and severe drought”. Moving forward and finding means of a solution, the debate with views and contributions from scientists, social scientists, public institutions and governments, non-governmental organisations (NGOs) and international organisations was set in motion. This has led to a growing concern about large migration flows that may take place as a result of climate change (Hastrup & Olwig, 2012, pp. 1, 7). This is because the recurrence of extreme environmental events such as drought, sea level rise, floods

and hurricanes due to climate change are expected to increase, and most of these migrants will come from the world's poorest countries (Science for Environment Policy, 2015, p. 3).

As indicated by a series of meta-analysis and comprehensive studies (e.g., IPCC, 1990; IPCC, 2014; IOM, 2014), many experts are of the view that the effects of a warming world and the frequency of extreme weather events will worsen already existing vulnerabilities in these countries, especially in terms of livelihood, food security, health and good water supply. Further, a rise in sea-level might make coastal areas and low-lying islands inhabitable and competition over declining natural resources could increase tensions and generate conflicts and consequently, to displacement (IOM, 2014, p. 38). The United Nations Environment Programme (UNEP) categorises these impacts from climate on migration flows into three ways; firstly, the effects of warming in some areas will eventually decrease agricultural productivity and degrade ecosystem services such as clean/fresh water and fertile soil. Secondly, the rise in extreme weather events, especially heavy rainfall associated with flash or river floods in tropical regions will affect increasing numbers of people, leading to mass displacement. Thirdly, sea-level rise will permanently destroy extensive low-lying coastal areas resulting in the permanent relocation of millions of populations (Science for Environment Policy, 2015, pp. 3-4; Laczko & Aghazarm, 2009, pp. 15).

Primarily, it is relevant to assess the extent to which the environment or climate change is the primary driver or simply one of the many drivers of migration leading to environmental migrants. The patterns of movement of environmental migrants may vary. Migration can take the form of internal within a country or international; voluntary or forced; temporary or permanent. Forced migration might result from an environmental catastrophe such as a tsunami or flood, or a government-instigated relocation, while a more gradual process of migration may be caused by slow onset environmental deterioration, such as the long-term effects of drought on agriculture. For example, in part of some countries like Morocco, Algeria, Tunisia, Somalia and Egypt where agricultural is a source of livelihood, extensive drought, desertification or loss of soil fertility could lead to migration of those exposed (Science for Environment Policy, 2015, p. 3; Laczko & Aghazarm, 2009, pp. 13-17).

To conclude, environmental change has the potential to affect migration now and, in the future, directly or indirectly by influencing a range of economic, political, and social drivers which also affect migration. Based on the range and complicated nature of how these drivers interact,

it is seldom to distinguish migrants for whom environmental change or climate change is the sole driver, that is environmental migrants. Notwithstanding this complexity, impacts of environmental changes or climate change on migration have implications for individuals and policy makers alike. This requires a strategic approach in developing a policy that is optimistic about migration in certain situations and not always pessimistic about mobility arising from climate change (Barnett & Webber, 2009, p. 19; Foresight, 2011, p. 3). Also, in regions that are highly vulnerable to disasters from the impacts of climate change, states can use planned relocation as an alternative policy option to protect those that are affected (Science for Environment Policy, 2015, p. 4).

2.2.1 Triggers of Forced Migration in the Climate Change Discourse

The influences of climate change on migration are either direct and obvious or indirect and subtle. For instance, in the first scenario, sudden natural disasters such as a hurricane or tornado may destroy homes and cause the people to flee, and in the second scenario, an ageing farmer as a result of soil unproductivity spanning over a number of years decides to sell that land and relocate to the urban centre (R. A. McLeman, 2014, p. 1). However, some natural disasters per how they occur may be labelled as non-climate drivers. It is apparent that many natural disasters are 'man-made', at least in part. A natural threat only becomes a 'natural catastrophe' (such as an incoming storm) if a population is especially vulnerable to its consequences. For instance, if there is no early warning system, a tropical typhoon becomes a tragedy since houses are badly built and people are unsure of what to do in the event of a storm (Brown, 2008).

According to McLeman the triggers of forced migration can be categorised into two groups: climate processes and climate events. Climate processes are slow in nature, such as rising sea levels, salinized agricultural land, desertification, increasing water scarcity and food insecurity. The rise in the sea level clearly makes certain coastal areas and small island states uninhabitable. At the same time, they take away their livelihoods and change the direction of incentives to a particular location. Whereas climate events are unexpected and dramatic threats that force people off their land much faster and more dramatically, making them homeless. They include monsoon flooding, glacial lake outburst floods, earthquakes, hurricanes and typhoons, to mention a few (R. A. McLeman, 2014) (cf. Brown, 2008 and IOM, 2016). Similarly, Laczko and Aghazarm are of the view that, in response to both sudden and slow on-set environmental events, migration exhibits various features that can be structured according

to the following range: voluntary-forced; temporary-permanent; internal-international; vulnerability-resilience (Laczko & Aghazarm, 2009, p. 23).

Climate change will test the adaptive potential of many different populations and overwhelm some notably in the Global South by dealing with and exacerbating current food security issues, water shortages and the scarce protection of marginal lands. Thus, the vulnerability of a community is a function of its exposure to climate conditions (such as a coastal location) and the adaptive capacity of the community (that is, a specific community's ability to survive the worst of the storm and recover after it) (Brown, 2008, p. 11). Here, populations without adaptive capacity, and not resilient will be forced to migrate to other regions internally or externally. In this regard, climate change is not necessarily the sole facilitator/catalyst but enhances other push factors to cause migration and human displacement, leading to environmental migrants.

2.2.2 The Blame Game of Climate Change

In recent years, the subject of climate change has gained global attention with researchers trying to present reasons for which the world/earth is at the mercy acts of climate change. According to the United Framework Convention on Climate Change (UNFCCC), the change in the climate can be as a result of natural causes or human induced activities (UNFCCC, 2006). For, instance Marchiori and Schumacher (2011, p. 573) are of the view that, the earth is boundless and therefore natural disasters such as volcano eruptions, tsunamis, the presence greenhouse effect in the atmosphere, etc have impacted the world's climate and the World Bank in their development report mentioned that the developed countries have produced most of the emissions of the past during the industrial revolution with high per capita emissions (World Bank, 2010, p. xiii). Likewise, the Global South have blamed the Global North as the World bank is of the view that the most countries who are vulnerable to adverse impacts of climate change are developing countries of the south with low financial and technological capacity to manage the increasing climatic risks although most emissions come from countries in the north. In addition, through scientific research it is argued that human activities such as fumes from industrial production, burning of fossil fuel and man-made greenhouse emissions has given rise to the temperature over the earth (World Bank, 2010, pp. xx – 4, UNFCCC, 2006, p. 16).

Regardless of the blame game of from natural to human induced reasons that nations are hooked up in, global warming and climate change is a reality that needs the disintegrating of

the interconnection between economic growth and development, and the increasing carbon emissions at both national and international levels (Jolly & Ahmad, 2019, pp. 17-18). Also, there is no doubt that climate change has and continues to have negative consequences especially on people who live in climate-vulnerable areas (IPCC, 2014, p. 20). Therefore, to borrow the words of The World Bank, “acting now, acting together (or globally), and acting differently. Acting now, because of the tremendous inertia in both climate and socioeconomic systems. Acting together, to keep costs down and protect the most vulnerable. And acting differently, because a climate- smart world requires a transformation of our energy, food production, and risk management systems” (World Bank, 2010, p. 10).

2.3 Climate Change and Migration: The Context of Bangladesh

In Bangladesh, a plethora of natural disasters, both slow and sudden events due to climate change have forced people to leave their homes either directly or indirectly (IOM, 2016, p. 42). The country is very vulnerable to the impacts of climate change due to its geographical location in the delta of Ganges, and the rivers Brahmaputra and Meghna. As a low-lying state, Bangladesh lies within the crossroads of two distinct geographical areas with the Himalayas to the north and the Bay of Bengal and the North Indian Ocean to the south (Habiba, Shaw, & Abedin, 2013). The country has a population size of over 165 million on a land size of 143,998 km making it the world’s seventh most populated country. 30% of the population live in urban areas (Begum, 2007; McDonnell, 2019). According to IOM, although disaster preparedness has improved in many ways, there is still a greater number of people exposed to environmental risks as the result of population growth. This is because in Bangladesh, more than 50 million people are still living in poverty, and many of them live in remote and ecologically vulnerable areas such as floodplains and river islands (chars), or coastal zones where cyclones are a major danger (IOM, 2010, p. x).

In addition, more than 100 cyclones, 60 sudden floods, and other natural disasters such as epidemics, droughts, and heat waves have struck Bangladesh in the last 30 years. The coastal areas of Bangladesh are home to nearly 50 million people (1/3 of the total population), who are highly vulnerable to natural disasters. The cyclones that affected these coastal areas are; Sidr in 2007, Aila in 2009 and Mahasen in 2013. For instance, cyclone Aila claimed 330 lives, displaced one million people, and caused \$40.7 million in damage (Alam et al., 2011; Habiba et al., 2013). Some scientific researches have predicted that the least rise in sea level in

Bangladesh will engulf more than 20% of Bangladeshi land by 2050, displacing approximately 30 million people, and an internal climate related migration phenomenon which is steadily rising, for instance (Habiba et al., 2013; IOM, 2010, 2016).

Moreover, IOM and Bangladesh Bureau of Statistics (BBS) documents that there has been a change in climate with evidence of rising temperatures, changing rainfall patterns and drought. The agriculture sector, which includes, among other things, food products, livestock, fisheries, and forestry contributes approximately 14.23% to the country's gross domestic product (GDP) and employs approximately 40.60 percent of the total labour force. Since the majority of the population's livelihood is dependent on agriculture this change will exacerbate the situation of farmers who over the years have improvised ways of adapting to the situation. Pertinent climatic factors that can be identified in Bangladesh include, cyclone, floods, river erosion (sudden onset events) and coastal erosion, salt water intrusion, sea-level rise, changing rainfall patterns, rising temperatures, and drought (slow-onset processes) (BBS, 2019, pp. iv, 3; IOM, 2010, pp. x-xii). IOM's research in some localities in Bangladesh identified that 80 per cent of the research population sampled mentioned that the temperature rise over the last 20 years has affected their natural resource-based livelihoods (IOM, 2016, p. 72).

Similarly, according to IOM, the Comprehensive Disaster Management Programme (CDMP) research in 2014 under the Ministry of Disaster Management and Relief (MDMR) identified four internal displacement factors in Bangladesh. These are river erosion, flooding, water logging and salinity (IOM, 2016, p. 42). Here, the people whose livelihood are affected try to move to other areas where they will be able to cope and earn a better living (Ibid, p.45). However, the nature of human migration differs depending on a variety of factors such as the speed and intensity of the disaster, the local's socioeconomic conditions, available resources, capability, and the level of resilience to the disaster (R. McLeman, 2017). Extreme environmental events may force affected populations to flee their homes, often resulting in large-scale movements, but return is often possible in the long term. In this vein, population migration trends are influenced by both gradual environmental change and extreme environmental events, but in different ways. However, due to the long-term and in some cases irreversible consequences of these climatic events, a greater number of people are likely to migrate as environmental conditions gradually deteriorate. This type of migration may be more permanent (IOM, 2010, p. ix).

In addition, IOM cited that, the MDMR in 2013 noted that, most of the people displaced end up in the major cities, especially Dhaka (IOM, 2016, p. 44). However, Rahman et al., contests that the movement of many displaced people to the cities, jeopardizes their ability to prepare for the future, since overcrowding and excessive use of existing infrastructure and facilities may cause urban development to be disrupted. Due to this overcrowding or the urban centres can be a contributing catalyst to floods and earthquakes and pose challenges to public health (A. A. Rahman et al., 2007).

Finally, over the years climate change induced migration in Bangladesh has been widely researched, see for instance (Evertsen & van der Geest, 2020; IOM, 2010; A. A. Rahman et al., 2007; M. Rahman, 2010; Siddiquee & Rahman, 2015; Siddiqui, 2010) and this issue is frequently referred to by the Bangladesh government in both national and international forums. Despite substantial progress in areas such as primary education, maternal health, infant mortality, and poverty reduction, climate change, disasters, and environmental degradation continue to challenge development outcomes and investment in Bangladesh. Although international cooperation and assistance will be critical in handling the expected large number of migrants, the primary responsibility for the security of those living within the country's borders lies with the national government. This issue must be incorporated into environmental, climate change, disaster risk reduction (DRR), land management laws and development policies. Therefore, it is important for the government to develop adequate and appropriate protection instruments to protect the rights of climate migrants and to improve disaster resilience (IOM, 2016, p. 43; Naser, Swapan, Ahsan, Afroz, & Ahmed, 2019, pp. 5-7).

To conclude, migration during climatic events both slow and sudden becomes an adaptation strategy for most of the population that live in climate prone areas, although the process of migration in itself is 'expensive' for the poor who are the most exposed. Invariably, to borrow the words of IOM, "environmental factors will be an increasingly important component of people's migration decisions over the course of the 21st century. While it remains crucial – morally and practically – to be aware of the long-term threat from climate change, the best way to prepare for the consequences of climate change in 2050 or 2100 is to improve the ability to deal effectively with Bangladesh's existing vulnerabilities now" (IOM, 2016, p. 12).

2.3.1 Summary of Bangladesh Government Efforts Towards Climate Change Mitigation

The government of Bangladesh became a signatory to UNFCCC in 1992 and ratified it in 1994. As a response to the decision of the UNFCCC's Conference of the Parties (COP7), the National Adaptation Programmes of Actions (NAPA) was established successfully in 2005. The NAPA set forth strategies to adapt to salinity intrusion, floods and droughts, and viewed coastal inhabitants highly vulnerable to the adverse impacts of climate change. It viewed migration as a negative consequence of climate change and identified strategies on how to avoid risks in the coastal areas (Anwer, 2012, p. 15; Huq & Rabbani, 2011, p. 8; Naser et al., 2019, p. 6).

In addition, and with a second step the country adopted the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2009. This became the government's most recent strategy paper on adaptation and mitigation since it was developed within a span of ten years, from 2009 until 2018. Therefore, it had a ten-year action plan that took into account all climate-related threats, such as floods, droughts, salinity intrusion, sea level rise, cyclones, and storm surges, etc. as well as their effects on various industries. It seeks to tackle the challenges and impacts of climate change. The measures that were developed are primarily based on six pillars. These are; comprehensive disaster management, food security, social protection and health, mitigation and low carbon development, infrastructure, capacity building and institutional strengthening and research and knowledge management (Anwer, 2012, p. 15; Huq & Rabbani, 2011, p. 7).

However, Anwer and Naser et al. are of the view that, although both NAPA and BCCSAP documents recognised the fact that there has been substantial growth in climate change related migration, specific guidelines for migrants were not addressed. Furthermore, there are no specific policies in place for national and local governments to deal with the long-term social effects of climate change and for the disadvantaged migrants (Anwer, 2012, p. 15; Naser et al., 2019, p. 7). In this vein, Naser et al., contends that there is a “policy gap and lack of understanding of climate migration and its long-term impacts on society and current urban system are the key limitations of the government to ensuring social justice for the climate migrants, which is an emerging social challenge” (Ibid, p. 7).

To conclude, the government needs to identify this policy gap in order to address the challenges on how to integrate migration issues into adaptation policies (Naser et al., 2019, p. 7). As IOM reiterates, although, “migration can be a manifestation of acute vulnerability, it can also

represent a logical and legitimate livelihood diversification and adaptation strategy that has been used for millennia and is likely to be of growing importance in the future. Migration can help reduce risk to lives, livelihoods and ecosystems, contribute to income diversification and enhance overall capacity of households and communities to cope with the adverse effects of environmental degradation and change'' (IOM, 2010, p. 4).

2.4 Summary

This chapter has addressed the climate change and migration nexus through the various literatures. It provided an overview of triggers of forced migration by highlighting both the slow onset and sudden onset of climatic stressors, and the blame game of climate change. Lastly, it presented a brief background of the climate change and migration nexus in the case of Bangladesh and the government's efforts towards climate change mitigation. It has demonstrated that handling climate change and migration issues is not only crucial to Bangladesh but to other small Island states and vulnerable countries in the Global South who lack the adaptive capacity to the adverse impacts of climate change. Also, migration should not always be treated as a negative remedy but as a form of adaptation. The next chapter (3) will outline the methodological framework employed for this research.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

The aim of this study was to examine the perceptions of some sampled Bangladesh citizens living in Norway on climate change and migration in the context of their home country. This was done by looking at how climate change may play a role in migration processes, of both their own or migration in general. In order to address this question well, the study applied qualitative data through semi-structured interviews where participants shared their understanding, personal experiences and thoughts about the topic being studied. These qualitative data provide the necessary information for analytical reflection, and also in relation to existing literature. Furthermore, this chapter provides clarification on the researcher's methodological choices, the processes of interviewing, and sampling technique of informants. The researcher will also discuss some of the challenges experienced during the research period, as well as issues that affected the entire process of the research. Hence, the aim of this chapter is to provide concise explanations and justifications for the choice of methodology employed throughout this research. Overall, it provides an overview of the methodological framework for the research.

3.1 Study Context

According to Siddiqui, the Government of Bangladesh (2007) documents that Bangladesh is a low-lying deltaic nation in South Asia who after her independence witnessed tremendous social and economic growth. Its Gross Domestic Product (GDP) increased threefold as well as its overall food production (Siddiqui, 2010, p. 4). From the records of Bangladesh Bureau of Statistics 2006-2007 its HDI improved from 0.347 to 0.547 in 2005 (Ibid, p.4). Bangladesh has been identified as one of the most vulnerable countries to climate change with sea level rise, drought, cyclone, floods, water logging, and unplanned urbanisation due to global climate change impacts (Rahman, 2011 cited in Siddiqui, 2010, p. 4). According to Siddiqui (2010, pp. 4-5) the impacts of climate change induce population movement in three different ways in Bangladesh. firstly, both sudden and slow onset climatic events coupled with climate variability for livelihoods, food insecurity, availability of water and public health; secondly; floods which is common for most Bangladeshis and thirdly, cyclones causing widespread displacement.

Bangladesh was chosen as the study area for this study due to the country's experiences with forced displacement. The country has become a contemporary study area for issues on climate

change and forced migration, and the consequent environmental migrants for both local and international organisations. However, this study seeks to access research participants perspectives on this issue, and therefore their perspectives will be reflected upon, and recommendations will be suggested where necessary.

3.2 Research Methodology and Justification

Methodology can be explained as the way we approach problems and seek answers (Taylor, Bogdan, & DeVault, 2015, p. 3). During the initial stages of this research quantitative or qualitative methodological approaches or a combination of the two were considered for collecting, interpreting, and analysing data. The two approaches have their own strengths and weakness that may direct and influence the research process. Hence, it is very important to consider their unique strengths and weaknesses when deciding on the approach to make use of (Creswell, 2013, pp. 3-20).

Due to the social nature of this research, the qualitative approach was chosen after a careful consideration of both methods or mixed. Qualitative research approach refers “to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things. In contrast, quantitative research refers to counts and measures of things” (Berg, 2007, p. 3). This method has further been argued to demonstrate fruitfulness and mostly brings to bare in depth understanding of the phenomenon under study (Ibid, p. 2). The rationale behind this choice is that the research seeks for a thorough investigation into the phenomenon being studied to gain a deeper understanding of climatic events in Bangladesh. In addition, owing to the broad nature of this subject which was realised at the preparatory stages of the project, an open methodological approach was needed since it allows for adaptability in a social context. As (Moriarty, 2011, pp. 1-6) is of the view that qualitative methods have gained a greater position and preference in social science research over the years. Therefore, applying the quantitative approach to this project would have been unsupportable and may have limited the scope of the research project.

In contrast to larger size of quantitative studies, the qualitative research has been criticised by some researchers as detrimental to generalization and verification due to the techniques used in collecting data (A. Bryman, 2008, p. 405). However, I would like to mention that this research does not seek for generalization but to acknowledge that this phenomenon is part of an on-going environmental and social process which needs to be continually probed into and

reaffirmed for better solutions. This does not also connote that the findings are not of value but rather applying qualitative approach in this study will help to provide a deeper understanding and information, and to contribute to the broader discourse of climate change and forced migration.

3.2.1 Qualitative Interview

Qualitative interview is a way of generating data by asking people questions orally. An advantage of this method is that it enables the researcher to gather relevant information basically for research objectives (Berg, 2007; Bremborg, 2013, p. 310; Cohen, Manion, & Morrison, 2002, p. 269). Interviews can be conducted in three different ways such as highly structured, semi-structured and unstructured which is dependent on the type of data needed (Berg, 2007; Crang & Cook, 2007, p. 3). However, for this research a semi-structured interview design was chosen since the aim of this research is to highlight the perspectives of ‘ordinary’ five Bangladesh citizens students on climate change and migration through the lens of the concept of human rights. Through this process informants can express their own unique view about the phenomenon under study and probably related issues (Rubin & Rubin, 2011, pp. 60-67). In this regard, a thematic interview guide was formulated to reflect the issues that this study seeks to highlight. The interview process and questions were made flexible in order to allow the researcher to ask further questions and to seek for explanations where needed, and to avoid controversial conversations that may arise.

However, for this project, the ideal data would have been to interview people who have experienced displacement as a result of natural disaster due to the impacts of climate change together with field visits, focus group discussion and observation in Bangladesh. However, the researcher had a challenge to access this ideal data from the primary field site due to the COVID 19 pandemic, visa issues and not least the cost. Notwithstanding, to resolve this situation, the researcher had a discussion with her supervisor about conducting interviews through digital platforms. Although this seemed to be the next approach to access the data, the researcher and her supervisor realised that since the researcher is not originally from Bangladesh, it would be difficult to manage and control the data process and to assess the reliability of the data. Therefore, the researcher had to compromise by interviewing Bangladeshis living in Norway. Although not being the ideal data, after a careful consideration, we also find out that probably interviewing Bangladeshis living in Norway may also have an advantage, given that these people have all experiences of being migrants, as well as have everyday experiences and

knowledge of living in Bangladesh. In this way, they do represent perspectives of the ‘ordinary people’ that I want access to. Additionally, it has the potential of enlightening/deepening our understanding of climate change and migration nexus in Bangladesh by exploring how the ‘ordinary people’ view this issue/subject. Overall the data represents the general perspectives of the ordinary people in Bangladesh on the discourse of climate change and migration issue in context.

The interview consisted of five young people between the ages of 20-40 years, who live in Norway. The interviews lasted for about 45-60 minutes at the convenience of the informants and depending on their willingness to share their perspectives. Informed consent was given orally according to Norwegian Social Science Data Services (NSD) and permission sought for before audio recording. But before this, the researcher and the informants engaged in an informal conversation to build rapport and to set up the interview environment. Handwritten notes were taken during all interviews to complement the recorded data which was later useful during transcribing. More information has been presented about the informants in the next succeeding headings.

3.3 Informant Selection (sampling) and gaining access

Generally, in relation to this type of study, the researcher used non-probability sampling, specifically, purposive and snowball techniques to carefully choose the sample who are readily available to provide information on the phenomenon being studied (Berg, 2007, pp. 31-32; Leedy, 2013, pp. 182-183). Since the researcher could not get access to the study area, the snowball sampling was used to select five Bangladesh citizens. This was made possible through social networks and familiarity. Here, the first student informant/participant with whom contact has already been established guided the researcher to other students from Bangladesh as well who later became participants (Bound, 2012; Rubin & Rubin, 2011, p. 89).

Overall, the purposive and snowball sampling applied in this research was key in helping to get access to the other students who became research informants.

Table 1: Summary of research informants and sampling technique

<i>Research informants</i>	<i>Sample size</i>	<i>Data collection instrument</i>	<i>Sampling technique</i>
Bangladeshis	5	Semi-structured interview	Purposive and snowball

3.3.1 Background/Characteristics of Informants

The informants for this study were mostly young adults between the ages of 20 to 40 years old. In total five informants were selected for this interview. This sample consisted of two female and four males. They have been living in Bangladesh since their childhood before travelling to Norway. Four out of the five interviewed were student migrants and the remaining was family migrants. They are all married and have been living in Norway between the year range of 2 to 4 years. In terms of education all informants have higher education up to the university level and this played a role in their responses during the interview process.

Almost all the informants were willing to participate in the research project to share their perspective on the phenomenon being studied. In order to protect identity, but also to maintain their perspectives as individuals all informants were given a pseudonym.

Table: 2 Summary of informants' background information

<i>Informant pseudonym name</i>	<i>Age range</i>	<i>Gender</i>	<i>Education level</i>	<i>Number of years lived in Norway</i>	<i>Type of migrant (student/family)</i>
Lupita	20-30 years	Female	Masters	2 years	Family reunification
Sonia	31-40 years	Female	Masters	4 years	Student
Mars	21-30 years	Male	Masters	2.5 years	Student
Saturn	31-40 years	Male	Masters	4 years	Student
Neptune	21-30 years	Male	PhD	3 years	Student

*Student or family migrant was used to identify the type of immigrant informants are but not to necessarily say that they have become Norwegian citizens.

3.4 Types of data: Primary and Secondary

The information gathered, discussed, and analysed for this study was primarily based on primary data. The researcher made use of in-depth interviews as the main source of primary data. The interviews were conducted in Norway over a period of six weeks. This formed the primary data. However, I have also referred to some secondary data through literature review of documents from sources such as IOM, UNHCR, IPCC, UNFCC, Actionaid.org, Refugee and Migratory Movements Research Unit (RMMRU.org), and Bangladesh news portals such

as dailystar.net and DhakaTribune.com. Although I have not analysed these secondary data, I find it useful to have these data as a background, to better understand the primary data from the interviews. This is mainly because I have an African background and not from Bangladesh.

3.5 The Role of the Researcher

Eaves and Kahn (2000, p. 42) are of the view that, “the researcher both influences and is influenced by the phenomena and people she or he studies”. In this vein, the researcher considered a number of challenges and concerns that may have impact on the research process. Firstly, not being a native of Bangladesh, the researcher was concerned about the responses that may come from the informants during the interviewing process. Secondly, the researcher was not able to have direct contact with the study field in context and therefore had to resort to some informants within Norway in addition to some online relevant sources. The role of the researcher is explained further under the positionality and reflexivity sub-heading below.

3.5.1 Positionality and Reflexivity

Positioning is a way of making clear one’s personal values and knowledge foundations in the subject area as a researcher. It also describes how the researcher’s principles, goals, opinions, and relationship affect the research process. On the other hand, reflexivity is an effort to “identify the foundations of knowledge and implications of any findings” (Nayar & Stanley, 2015, pp. 12-13). Here, during the interviewing process the researcher’s educational knowledge in the field nearly generated some form of biases towards environmental, human rights and migration issues. In this position, the researcher was tempted to comment on some of the answers from the informants. Therefore, it was important for the researcher to be reflexive by making a conscious effort to isolate emotions, beliefs, values, perspective, and knowledge from the research process to be able to understand issue from the perspectives of the research participants/informants. Finally, the researcher engaged the informants in useful discussions about the theme of study and sought for clarification on responses where necessary.

3.5.2 Ensuring Credibility/Trustworthiness

Credibility deals with the question, how congruent are the findings with reality? (Merriam, 1998). Both qualitative and quantitative methods of data collection have their own weakness that impact the research process. For instance, the qualitative method has been criticised by researchers like Bryman who argued that, in contrast to quantitative studies the methods utilised in qualitative research makes it unfavourable for generalization and verifiability

(Bryman, 2008, p. 405). Addressing all if not some of these weakness in various steps can help to ensure that, the phenomenon being studied will be presented in a wholistic manner at the end of the research process. Therefore, firstly the researcher established rapport by developing a good relationship with research participants through informal conversation before beginning each interview. With this approach, the research participants were encouraged to open up to share their perspectives on the phenomenon being studied. Secondly, research participants were assured that their information provided during the interview will be reported truthfully and kept confidential. Finally, the researcher also sought for views from her supervisor and a friend on the thematic interview guide that was used for the interview. This was to ensure that the questions covered almost all aspects of the study. This study is aimed at contributing to the broader discourse on climate change and migration and not necessarily for generalization.

3.5.3 Ethical Considerations

Ethics is a necessity in any form of research. The researcher must do well to ensure the welfare, rights and privacy of the people and the study setting (Berg, 2007; Leedy & Ormrod, 2013). In this regard, informants were assured that their responses will be held confidential and anonymous. Respondents were not coerced to participate and were given the right to ask questions for clarifications, and the freedom to withdraw at any stage without any explanations. During each interview, the consent of the informant was sort for, after which a brief introduction of the research objectives but without disclosing the entire aim of the research in order not to influence their choice of answers. The consent of research participants was sought for before switching on audio recorder during the interviews. The findings from the interviews were anonymised carefully so that anyone who reads this research will not be able to identify the informants either directly or indirectly. Also, the project has been approved by NSD (project number: 139674).

3.5.4 Study Limitations

The qualitative research method applied to this study has its own merits and demerits. In order to avoid the possibility of personal biases in the synthesis and analysis of data, the researcher had to work hard to strike a balance between personal interests and time available for the study. In addition, due to the COVID 19 situation, the researcher could not get access to the actual study field and therefore had to put it in context by selecting some Bangladesh citizens in Norway. Similarly, some interviews were conducted virtually which was made possible by constant follow ups on the part of the researcher. Also, identity posed as a limitation since the

researcher is not a native of Bangladesh and therefore had to work harder to understand the cultural and environmental setting of the country. In the end all these limitations worked for the good of this research as the researcher ensured that findings were reported in a holistic manner.

3.6 Data Analysis

For most qualitative research, data analysis starts right from the beginning of the research to the field through observation, interviews and documents analysis as the researcher discovers emerging concepts likely to help in understanding the phenomenon being studied (Check & Schutt, 2011, p. 325). Based on this idea, the researcher developed a thematic interview guide for the qualitative interviews and made some adjustments during the process when needed. This was important as it helped in developing concepts and shaping the presentation of data for analysis.

The thematic analysis was adopted for this research. This analysis method involves working with raw data to identify and establish codes which are then compared and correlated with each other. The next process is to connect them to theoretical foundations to identify key themes (Alan Bryman, 2012, p. 580; Matthews, 2010, p. 273). This assisted the researcher to identify a pattern in the different pieces of information collected as data (recorded and transcribed verbal communications). In this vein, the researcher first typed out all the interview recordings and then organised them into data by reading and re-reading the texts. After this had been done, the researcher then developed codes to categorise the informants like ‘SM’ or ‘FM’ signifying ‘student migrant’ or family migrant, ‘F’ or ‘M’ is ‘female or male’. Therefore ‘PSMF1’ stands for participant student migrant female” and the number was used to note the order of the interview during the data collection process. After this process, pseudonyms were generated to aid in the smooth running of the analysis. These names have been indicated in the data presentation chapter (5). This process also helped to distinguish a pattern from the responses of the informants based on the themes selected in line with the general research questions and the questions from the interview guide. The themes used for the analysis of this study were based on for instance knowledge of climate change and migration, climate change and basic human rights, and hope and climate change, etc. The coding was also used to check the anonymity of respondents. The data and analysis are highlighted in chapters five and six.

3.7 Summary

This chapter has provided information on the methodological approach and the rationale for this research; the qualitative method and the use of triangulation, specifically qualitative interview and document analysis as multiple sources of data to help strengthen credibility, reliability and validity, and to resolve some of the weaknesses inherent in these techniques. It has also presented the methods for gaining access which are purposive and snowball sampling that were used to select research participants from Norway and documents from sources such as IOM, UNHCR, IPCC, UNFCCC, Refugee and Migratory Movements Research Unit (RMMRU.org), dailystar.net and DhakaTribune.com to make up for primary and secondary data. Finally, ethical considerations for this research and some limitations that may have impacted the research process were highlighted in this chapter. The next chapter will provide information on the theoretical framework applied in the analysis section of this project.

CHAPTER FOUR: THEORETICAL FRAMEWORK

4.0 Introduction

The focus of this study has been to examine the perceptions of ‘ordinary’ citizens on how climate change plays a role in migration. In the past years, migration has been used by most people who depend on agriculture for livelihood as a means to cope with issues of drought, soil erosion, land degradation, etc. However, in this contemporary time both slow and sudden onset climatic processes/events are directly/indirectly playing a role in human migration, making global south countries with less economic capacity highly vulnerable due to the disparity in development to global north countries. As a result, the basic human rights of such people are being challenged. In an attempt to resolve some of these issues, various approaches are evolving in the climate change and migration debate. One of such approaches is the concept of climate justice. In addition, this concept will be supported by push and pull factors in migration studies and unequal power relations. Considering that this is a qualitative study, it is relevant to state here that, although push and pull factors are commonly used for quantitative analysis in migration studies, they will be used as analytical tools to explore how they intertwine with climate change in migration decisions. Also, the unequal power relations will be related to climate change negotiations/conferences to explore how this manifest in tackling climate change issues among individual countries. In view of this, this chapter seeks to examine the place of the concept of climate justice, push and pull factors in migration studies, and unequal power relation theories in relation to climate change/discourse. The chapter begins by presenting an overview of the main concept, which is climate justice and secondly its framework/approaches in the climate change discourse before moving on to briefly explain the supporting theories, push and pull factors and unequal power relations. These will be referred to in the analysis chapter where necessary.

4.1 Why Climate Justice?

There are variations on how the concept climate justice is explained in the discourse of climate change. However, the common idea in the definitions of this concept by scholars is that it views climate change not solely as an environmental and physical issue but also as a moral, legal and political issue (Roberts, 2007; Schlosberg & Collins, 2014; Weiss, 1989).

To explain further, the origins of environmental justice movement which may be linked to climate justice dates back to the 1982 demonstrations over the dumping of PCB-tainted soil at a new landfill in Warren County, North Carolina. The protest against the dumping of extremely hazardous garbage in this poor, predominantly African-American county drew together black

political leaders, civil rights activists and environmentalists, and was the first significant civil rights and white campaigning action since the 1960s. This event marks the “merger of the environmental and civil rights movements”(C. Lee, 1992). Following this, over the years, climate justice has developed from grassroots campaigning such as NGOs and public debates to highlight the link between human rights, unequitable development, and climate change. The concept is built on a foundation of equitable development and human rights and gives political voice to countries (Luchsinger, 2009, p. xii; Porter et al., 2020, p. 293) that are highly vulnerable to climate change impacts.

As a framework, it brings to light the relationship between climate change and the way socioeconomic inequities manifest as systemic violence. Discourses on climate justice frequently centre on the distributional impacts of climate change, highlighting how these burdens fall disproportionately on the most vulnerable populations, notably between the developed/rich and developing/poor countries. This is linked with the notion that developed countries are major emitters of greenhouse gases that cause climate change impacts; however, it helps to explain how the former nations and groups shift the costs of harm they cause to the others (developing/underdeveloped) who are less fortunate. Based on these arguments, changes must be radical, and we must think globally rather than locally (Luchsinger & Adams, 2009, p. xii; Porter et al., 2020, p. 293).

4.2 Climate Justice in Climate Change Discourse

The role of climate justice in the climate change discourse is crucial for understanding the human-environment relations. A variety of approaches have been developed to understand and examine the connection between the adverse impacts of climate change and interpretation of the concept justice and fairness. These approaches are being pioneered by climate justice theorists, activists and organisations from both local and global civil society as well as governments for developing and vulnerable countries (Schlosberg & Collins, 2014, p. 445).

To explain further, one of such approaches argues for historical accountability which was pioneered by scholars such as (K. R. Smith, 1992) and Grübler and Fujii (1991). This approach explains that global warming and the adverse impacts of climate is caused by a rise in the concentration of greenhouse gases in the atmosphere, which is a result of accumulated emissions over time (Neumayer, 2000, p. 8). Here, the claim is that the current climate change

issue was caused by certain governments operating under industrial revolution and growth patterns, and those parties should now pay the current consequences of their previous sins. Supporters of historical responsibility point out that that people in developing nations, who are already at risk due to climate change, will be hit harder and more swiftly by the effects of climate change than people in more developed countries (Agarwal, Narain, & Sharma, 2017; Houghton, 1996, p. 218; Kartha, 2011; Schlosberg, 2012, p. 447). This historical responsibility approach is seconded by the polluter pay-principle (PPP) which was used by the OECD countries since the 1900's (OECD., 1992, p. 4) and directed towards developed countries who have contributed more to the accumulated emissions than the developing countries and therefore they must make amends/pay for it. It also applies to countries who are more responsible for global warming who are expected to take more responsibility to mitigate its impacts (Neumayer, 200, p. 8; Sclosberg, 2012, p. 447).

Another approach is on the per capita equity share of greenhouse gas emissions. According to Singer (2016) there should be an “equal per capita future entitlements to a share of the capacity of the atmospheric sink” (p. 43). Jamieson (2001) explains this as carbon egalitarian which is based on the principle that all people are equal and deserve equal rights and opportunities (pp. 287-307). He further states that, “on a per capita basis, Americans are responsible for more than seven times the emissions of the Chinese and eighteen times the emissions of the Indians...it is unfair to equate the “necessary emissions of the developing world, in their quest for minimally decent lives for their citizens, with the “luxury” emissions of the industrialised world produced by gas-guzzling second cars and overheated and overcooled homes and offices” (Ibid, p. 298). Moreover, the equity principle would need a scientific agreement on the entire quantity of greenhouse gas emissions to be permitted; that amount would then be divided by the total world population, yielding an equal emissions limit for everyone on the globe. Each country would be permitted to emit the total of its population multiplied by the permissible per person emissions (Sclosberg, 2012, p. 448). However, Singer is of the view, the current system is unethical since it permits the emission of enormous amounts of greenhouse gases by certain individuals while imposing greater financial burdens on others. So, he inquires as to what constitutes a just distribution? (Singer, 2016).

A final approach to climate justice is based on the rights principle. The United Nations Office of the High Commissioner for Human Rights (OHCHR) argues that “a human rights based approach addresses cross-cutting social, cultural, political and economic problems, while

empowering persons, groups and peoples, especially those in vulnerable situations. This can make considerable contributions to climate change policies, making them less myopic and more responsive, sensitive, and collaborative” (UN-OHCHR, 2015, p. 7). These are basic human rights to life, development, food, self-determination, health, water and sanitation, housing, education, to meaningful and informed participation and that of future generation which are most affected by anthropogenic climate change (Ibid, pp. 13-24) and that everyone has a right not to suffer from such climatic effects which threaten their fundamental interests (Caney, 2006). According to UN-OHCHR, Olav Fykse Tveit, General Secretary, World Council of Churches simply noted, “these are basic issues of justice” (UN-OHCHR, 2015, p. 7).

In this vein, Mary Robinson Foundation proposes five principles of climate justice that are essential to respect, protect, promote, and fulfil all human rights for all people in the face of anthropogenic climate change. They include sharing “benefits and burdens equitably, ensure that decisions on climate change are participatory, transparent and accountable, highlight gender equality and equity, harness the transformative power of education for climate stewardship and use effective partnerships to secure climate justice” (Mary Robinson Foundation-Climate Justice, 2011, pp. 1-3). In sum the human rights approach to climate justice transcends the idea of climate justice based solely on equality and concentrate on environment and development that individuals, communities and governments must “survive, develop and function” (Sclosberg, 2012, p. 448).

4.3 “Push-Pull” Theory or Push and Pull Factors in Migration Discourse

Push and pull factor theories are commonly and widely used in migration studies to examine migration flows. These theories were first proposed by Ernest Ravenstein in 1885 based on his writings on “Laws of Migration”. He developed his paper from the data from the British Census in 1881. He came to the conclusion that migration is regulated by a “push-pull” mechanism, in which unfavourable conditions in one region ‘push’ people out, while favourable conditions in another location ‘pull’ them out (Ravenstein, 1885). The fundamental reason for migration, according to Ravenstein’s laws, is ‘dominant economic motive’ (both good and bad) and migration is a gradual process which happens in phases/stages rather than in one continuous shift. Moreover, migration is bilateral and is influenced by gender, social class, age, etc. (Ibid, 1885).

Following Ravenstein's work, other researchers and theorists have elaborated on his theory to explain the patterns of both internal and external migration. One of such theorists is Lee whose ideas parallel's Ravenstein's ideas and conclusions. Lee based on his work "A Theory of Migration" redefined the "push-pull" theory by Ravenstein, yet more in relation to international/external migrations. He pioneered the 'Push and Pull Theory' also referred to as "Lees Theory". According to him, push factors in the homeland include unemployment, poverty, low salaries/income, and human rights violations, whereas pull factors include economic stability, high life expectancy, low birth and death rate, and the availability of modern jobs in the expected host/destination country (E. S. Lee, 1966). He summarised these factors as the act of migration into four categories. They are; (i) "factors associated with the area of origin; (ii) factors associated with the area of destination; (iii) intervening obstacles; and (iv) personal factors" (Ibid, pp. 49-50). However, there are relevant disparities between factors associated with the area of origin and factors associated with the area of destination (Ibid, p. 50). Despite these factors in migration decisions and processes, for migration to occur, both pull and push forces/factors must be in operation for migration to occur (Kline, 2003).

To conclude, from the above explanations and the variations in definition of the push and pull theory, in operationalizing these theories for this research, "push factors are those life situations that give one reason to be dissatisfied with one's present locale; while the pull factors are those attributes of distant places that make them appear appealing" (Dorigo & Tobler, 1983, p. 1). In other words, push factors may include, unemployment, poverty, population growth, low social status/social inequality, direct/indirect political suppression. On the other hand, pull factors may include quality education, better welfare system, better job opportunities, political stability and recognition of human rights in destination countries (Ibid). The push and pull factors here may include unfavourable climatic conditions and better climatic conditions respectively.

In this study, the researcher intends to combine the push-pull framework with the concept of climate justice to explore whether and how climate change is related to direct push and pull factors to influence people's decision to move.

4.4 Unequal Power Relations

Power relations have always been in existence in every society, and it governs our everyday lives both directly and indirectly in different ways. However, there are different levels and approaches to understanding power relations. Therefore, in order to contextualise unequal power relations for this research, it is relevant to briefly explain the theory of power. There are varied definitions of power in sociology and social sciences. One of such definitions is by the German sociologist Max Weber. He defines power as “the probability that one actor within a social relationship will be in a position to carry out his will despite resistance (Weber, 1978, p. 53). According to Emerson, “the power of actor A over actor B is the amount of resistance on the part of B which can be potentially overcome by A” (Emerson, 1962). Also, Lukes argues that “A may exercise power over B by getting him to do what he does not want to do, but he also exercises power over him by influencing, shaping or determining his very wants” (Lukes, 1974, p. 27). He further proposed “three-dimensional power” briefly summarised as, (i) decision-making power of political actors, (ii) power is exercised where issues are framed purposefully in a way such that some are not discussed, whereby defining boundaries for what is allowed in the system and what is not, and to also avoid potential conflicts and (iii) power is seen as both “insidious” and “supreme”, since it allows rulers to influence the choices and perceptions of the people while also preventing them from airing their grievances (Ibid, 9-30).

Following the explanations above, unequal power relations operationalised in this study based on the ideas of power by Weber, Emerson, and Lukes. Therefore, unequal power relations includes any form of inequality interactions that directly or indirectly manifest at all levels of human relations in society, that is among individuals, groups and institutions (Emerson, 1962; Lukes, 1974; Weber, 1978). In other words, how actor ‘A’ exerts *power* over actor ‘B’ in various forms of decision making and governance which highlights social inequality.

Similarly, in this study, the researcher intends to combine the unequal power relations contextualised here with the concept of climate justice to help to examine why some groups of people are more exposed to risks of climate change and are more vulnerable, and whether or how institutional framework/policies/decisions exacerbate the already existing vulnerabilities in the society.

4.5 Conclusion

This chapter has explained how the concept of climate justice is framed and looked at in the climate change discourse. It has also provided information on pull and push factors in migration studies as well as power relations that has always existed throughout society in interactions where actor 'A' has the ability to command, coerce, direct or influence actor 'B'. Although climate justice approach/framework is gradually being considered and integrated into climate change related actions and policies, it has not been entirely fruitful. Therefore, this concept is relevant to this study to understand how 'ordinary' Bangladeshi perceive climate change in relation to migration in the context of his/her country. This concept fits well into this study since in these contemporary times, the level and speed of the adverse impacts of climate change is on the rise and being felt globally, specifically by looking at the case of low-lying states like Bangladesh, an agrarian nation where agriculture is the major source of income or livelihood for the government or most individuals. By using this concept as an analytical vehicle this study seeks to explore the degree to which climate change problems are perceived as a role in migration. The climate justice concept will be used to examine if any and how the adverse impacts of climate change exacerbate existing vulnerabilities. In addition, pull and push factors are also relevant to understand how they intertwine with climate change impacts to influence migration decisions. Finally, the theory of unequal power relations that has been contextualised above will be used to explore how institutional structures and politics may be exacerbating the lives of those who are highly at risk/vulnerable to adverse impacts of climate change. The next chapter (5) will provide empirical data gathered in the context of this study.

CHAPTER FIVE: PRESENTATION OF EMPIRICAL FINDINGS

5.0 Introduction

This chapter provides the empirical findings of the research. Since the aim of this research has been to examine individual perspectives on how climate change directly or indirectly plays a role in migration, therefore this chapter brings together the context of the study from the data collected. The findings will be put under three categories; (a) perception or knowledge of climate change (b) the impact of climate change in Bangladesh (c) perspectives on how climate change plays a role in migration. These categories were areas/topics that were discussed with informants during the interview session. Based on these the empirical data presented represents the varied perspectives of the informants through interviews. The analysis of these perspectives in relation to the research questions will be done in the next chapter (6).

5.1 Perception/Knowledge about Climate Change

As the focus of this study has been to examine the perceptions of ‘ordinary people’ from Bangladesh who have migrated to Norway on how climate change plays a role in migration in the context of their country, it was relevant to inquire about their personal conception of climate change. Although there are varied definitions of the term by scholars and climate change experts, informants may have varied definitions which must be accepted in the context of this study. This is because sometimes climate change issues are subtly paid attention to on a personal level and therefore informants’ own conception of the term was simple enough to lead them to think critically about the current climate change situation. To achieve this, the researcher incorporated questions to inquire on how well-informed informants are about the climate change situation in their country and to investigate more about global climate change problems. This created a thought-provoking questions and answers time during the interviews. In this case, the researcher was also able to probe further based on their responses into how climate change directly or indirectly plays a role in migration.

Although from my perspective informants conception/definition of climate change must also be accepted in addition to the definition by climate change experts/researchers, to analyse whether their conception fits well into the explanations on climate change discourse provided in the earlier chapters of this study, they were first asked about their sources of information/news on climate change issues in their country and in general, and secondly to tell what they know about the word climate change.

5.1.1 Sources of Information on Climate Change

By exploring the kinds of sources of information on climate change, all informants cited the media as their general source of information, specifically the internet, NGO blogs and newspapers. The informants said that the internet and blogs were more popular sources than the newspapers. As one respondent said, *“my study is related to sustainability, environment and social issues and some aspects of climate change, I get news from the internet mostly or newspaper”* (Lupita).

Saturn said, *“internet, television (TV), newspapers, etc so I get daily news through internet. As a citizen I also know the day-to-day climatic condition in Bangladesh”* (Saturn).

Another informant said, *“From the internet, I am concerned about climate change for my country and not only Bangladesh”* (Mars).

However, another informant noted that newspaper reading is still common among people in developing countries since not everyone has access to the internet, as she narrated; *“we get information mostly from newspapers because in my country we read newspaper daily, television of course, the weather report from national news journals and now internet because all news portals are available on the internet as well. But I mostly use the internet to access such information”* (Sonia).

In addition, interestingly, one informant drew a link between the politics and power relations in government institutions which are sometimes reflective in the climate change debates. As he expressed, *“although you can get information about climate change from NGOs, newspapers and internet, I think the information from NGO or the picture it portrays is more accurate than government sources”* (Neptune). A follow up question on why this difference, he said *“our government does nothing about climate change, just showing off as being a signatory to UNFCCC and are busy about politics. Our government is concerned about other things and not climate change. The government must listen to scientists on the climate change problem and rely on experts, but no, that is not the tradition in Bangladesh or Asia”* (Neptune). In common, all informants demonstrated a greater amount of information on climate change issues more specifically in their country since it's an important issue to them. They share a common view that the climate change situation in the country is important to them and therefore, getting informed about such issues about their country was necessary. Although, as

presented above, one informant cited that there is sometimes duality in the information out there on the internet since NGOs provide the right information as compared to government sources. What could be the cause for this duality? Could this be politics at play or some form of power relations that influence the information that should be posted on these government portals? These questions will be discussed in the analysis chapter.

Also, as a way to understand how well-informed informants were about the climate change problem in the context of their country, the researcher incorporated questions on their childhood days in Bangladesh and their connectivity to their country. All informants grew up in Bangladesh until they travelled to Norway and have close contact with immediate family and some friends. They said, “*yes I have been living in Bangladesh from birth and I talk to my relatives almost every day*” (Neptune) and “*yes and I have visited Bangladesh five times since I came to Norway*” (Saturn). Another said, “*yes I have lived in Bangladesh since I was born until I decided to travel to Norway for school and while in Norway, I have continuous contact with immediate family, parents and siblings*” (Mars). From Lupita, “*yes, Bangladesh has been my home from birth and since I came to Norway, I have contact with family members and always try to talk to them daily; 2-3 days in a week and friends also*” (Lupita). “*Yes, I have always lived in Bangladesh since childhood until I decided to travel to Norway. I call my parents almost every day and a couple of times some close relatives and friends*” (Sonia).

The above statements suggest that although informants have migrated to Norway for school and family reunification, they always try to get updated information on such issues in the context of their country through the internet. It can be said that due to their constant communications with family and friends to check up on them, they also directly or indirectly get to know of some of the weather/climate change situations in their country from time to time. In this vein, their narratives may be used as the daily representations of the climate change problem in the context of their country.

5.1.2 Perspectives/Conception of the Word Climate Change

Secondly, respondents were asked to tell/share their perspectives on the word climate change. It is obvious that the responses to this question will be somewhat varied. Indeed, the responses of informants to this question varied, however there were some recurring themes or common ideas. ‘Global warming’, all informants associated this term to climate change. In their words,

“To me it is global warming, the temperature is increasing day by day and in my country previously it wasn’t that much hot. Before it was almost around 25-30 degree Celsius during summer but now it is around 45-48 degree Celsius in summer, it is too much hot now. And in the winter, earlier it was almost 3 months minimum but now it is almost 50 days and it’s really cold, like 5-6 degree Celsius in temperature but sometimes too much rain during this season which should not be. Also, in the raining season it is supposed to rain for 2 months but now a day it does not rain during the season but suddenly it starts to rain, and this creates floods, it is all about climate change, actually it is all the impact of climate change” (Sonia).

“The temperature is not the same in all areas, the climate is warmer now we can feel it. There are more storms, floods, and landslides...previously where I lived when I was a child, it was not warm but now it is very warm” (Mars).

“I think of climate change as a temperature rise and greenhouse gas comes to mind” (Lupita).

In addition, one respondent informant highlighted the climate change debates and research projections on the impacts of climate change for most low-lying countries. The respondent said; *“the world’s climate has continuously been changing and not only Bangladesh, but the whole world. For instance, the ice bugs are melting, sea level is rising/increasing, so lower-level countries of the world like Bangladesh is going under water so within 50 years the country may disappear, it is devastating. I can recollect that, when I first came to Norway, there was a lot of snowfall, but this year there has not been much snowfall yet. When I think of the world climate, I feel anxious and what will happen to the next generation”* (Saturn).

Interestingly, one informant’s response touched on how climate change affects natural habitats and ecosystems as well. He said, *“climate change is broad not one thing, we are from a cold country but now it is getting more hotter and hotter in the summer, and in the winter before it was around 10-15 degree Celsius but now it is colder. Loosing different resources in our country for example, like different animal and plant species, like those that I saw when I was young have disappeared now and that is also an effect of climate change. Their habitats are getting destroyed by humans and they don’t have a place to live so gradually they are disappearing”* (Neptune).

The above statements suggest that informants accept the fact that there has been a change in the world's climate which is affecting not only Bangladesh but all countries. Indeed, for them climate change is real since they have 'touched' and 'experienced' the different changes in the climate of their country in terms of warmer summers and colder winter days, as well as seasonal change in rainfall patterns over the years and even now. Moreover, as observed from the responses of informants on the word climate change, all informants attribute the word climate change to warmer temperatures and show a common concern for the drastic weather changes and as well as humanity. Therefore, it is understandable that all informants had the words "global warming" in mind once the researcher asked them to share their perspectives on this term. Finally, their perspective above suggests that climate change poses a threat to nature and humanity.

5.2 The Impact of Climate Change in Bangladesh

Previous and current studies have demonstrated signs of climate change in Bangladesh with details on how vulnerable the country is in this context. From the studies by (IOM, 2010) and BBS (2019), in Bangladesh, some common climate change factors/impacts that are pertinent are annual mean temperatures, changing precipitation, severe flooding events, cyclone frequency and severity, and river, groundwater, and soil salinization, sea-level rise, and drought (slow-onset processes). Moreover, the geographical location of Bangladesh positions it to receive runoff water from the rivers that surrounds it as it lies within the delta of Ganges, and the rivers Brahmaputra and Meghna, including the Bay of Bengal and the North Indian ocean (Habiba et al., 2013). Giving this background information, informants were asked to share their perspectives on how climate change affects their country. In response, almost all the climatic factors/impacts mentioned by these researchers were reflected. Three informants said:

“Bangladesh has many poor people who live in the villages. Bangladesh is the land of river so most of the people affected by the flood or the riverbank landslide and cyclone lost their homes. Such people migrate inside the country because they are poor and they don't have a chance to migrate outside the country, they migrate inside the country” (Sonia).

“The temperature of Bangladesh is high and especially for the pollution in the cities due to high population and people are not so serious about the environment and the

harmful things they are doing every day. In June, July and August, there is massive rainfall which causes floods especially in the coastal areas'' (Lupita).

''There is high population rate, around 200million people living in Bangladesh therefore they are producing lots of waste, harmful gases, and carbon dioxide in huge quantities. The environment is changing, and people are cutting trees continuously. For instance, in estimation for every country there has to be 25 percent of forest but in Bangladesh it is only 9 percent now but five years ago it was about 13-14 percent, and the trees are getting varnished every day. Also, there are floods two times every year in low lying areas and storms as well. Most people are engaged in agriculture, that is 30 percent. Nearby countries like Pakistan and India are experiencing a lot more natural disasters than before. In Norway also the temperature is increasing more as compared to previous years. Climate change is affecting all countries, not only Bangladesh'' (Mars).

Also, two of the informants talked about how climate change affects the economic activities of their country. In their words:

''There are a lot of climate change issues now. When I was a child in the 1990's I can say that the average temperature was between 20-25 degrees Celsius but now the temperature is over 30 degrees Celsius, so the country is going to dissolve. Effects of climate change are numerous like every year we face floods, cyclones, and other related calamities. Even in the northern part of Bangladesh is becoming a desert, there is the loss of rivers. Bangladesh is known as the land of rivers but now there is no water so as a result there is no water to cultivate the land during the planting season. In the coastal areas almost 20-30% of the lands are going under water which is devastating. Economically, there is a significant effect since Bangladesh is an agrarian country, so the seasonal change is affecting the agricultural work'' (Saturn).

''We have many rivers and we used to be called the land of rivers many years ago but now all the rivers are dry with no water, and this is one of the serious issues in our country. Nowadays, sometimes when the cultivating seasons comes, we face the problem of getting water to cultivate our land. This is affecting economic activities and the farming community (ies)'' (Neptune).

The above statements show an awareness of how climate change impacts humanity and not only Bangladeshis. However, the repercussions of these impacts are not felt alone at the individual level but also national level. Informants could identify that those individuals suffer directly from the loss of agriculture; their agricultural land, and this may lead to increased national loss if nothing is done. In this vein, such impacts may lead to social impacts such as food and water insecurities, as well as loss of property, life, settlement, livelihood and livelihood assets, etc.

5.3 Perspectives on How Climate Change Plays a Role in Migration Decisions

5.3.1 Climate Change and Migration

During the defining moments of this research, examination of some previous research on climate change and migration suggested that many people are migrating from their original home both internally and externally due to climate change and in the coming years there will be massive migration flows to many developed countries in this context (IOM, 2010; IPCC, 2014; R. McLeman, 2011, 2017; R. A. McLeman, 2014; UN, 2016). However, the studies by Rigaud et al. (2018) reports that the reasons why people migrate internally or externally, as well as the extent to which climate change may play a role in their migration process, are viewed as complex and sensitive subjects. While looking into this matter, during the interviews, informants were asked to share their stories of why they migrated to Norway. The perspective on climate change being complex and sensitive subjects reflected during the interviewing process. Most of the responses from some of the informants sounded a little bit defensive and also ended with a stress on the words ‘*not because of climate change*’ as the researcher tried to probe further to know whether climate change is an indirect influencing factor. They shared:

‘Because of free education to do my masters, Norway is a developed country and with high quality of education, not because of climate change, if you are looking for a link/correlation between climate change and why I migrated, no...not for me’ (Mars).

‘I decided to come to Norway for my career development. I choose Norway because of their education quality and here education is free of course and other places it is too much expensive, but not because of climate change’ (Sonia).

“There are lots of reasons why I moved to Norway, my main aim was to have a higher study and in Bangladesh education is not completely free. I have been working in various companies like the banks, in marketing and estate developers, etc. After that I realised that I needed to further my education so I decided to move to any developed country which can provide me with the option to fulfil my desires in education and technically I have. Most importantly in Bangladesh it is difficult to conduct research while in the company (full time job) but in Norway it is quite easier since you can easily combine research and work together. And I am searching further for a PhD in other universities in Norway. Being developed, Norway also has good living conditions as one of the top countries in the world so as to have a better life, security, and safety. My family also likes Norway”(Saturn).

Climate change is not the issue, basically the motivation for me migrating is research and Bangladesh is not good in terms of research so after my graduation I realised that if I continue living in Bangladesh, I will not fulfil my dream as a researcher. And then I decided to go abroad, first to China for masters and afterwards Norway. Fisheries is my area and since Norway is one of the best in that regard, I didn't think twice to accept the offer (Neptune).

I first came to Norway through family reunification since my husband was a student and then I became a student also. All exciting because it's a new environment and also the opportunity to explore something new. But it was a little bit hard because I had to leave family and friends in Bangladesh to stay without them (Lupita).

While reflecting on these shared stories, the common pattern that may be drawn here is the quest for higher education aside the informant, who is a family migrant who eventually became a student too. Their reasons reflect both push and pull factors in migrations studies at work (these will be elaborated on in the analysis chapter). It seems that respondents do not want their migration stories to be associated with climate change impacts/stressors knowing that their country is highly vulnerable to climate change. Could it be that almost all respondents are residents of the highlands and not the coastal areas which are prone to the impacts of climate change in Bangladesh? Or could it be related to their socioeconomic background which makes them less vulnerable to climate changes? This finding may echo the perspective that climate change related migrations are sensitive topics since there may be other underlying factors

interwoven in the migration process of such migrants. This will also be discussed further in the analysis chapter.

Based on informants' knowledge of how climate change affects their country, they were asked if they or any of their relatives have been affected by floods, heavy waves washing of walls or buildings, droughts, landslides, storms, cyclones, etc. Here, almost all informants knew someone who have had an experience from these climatic stressors. From their perspectives;

‘But I don't know if you have heard or not that the people who live at the bank of the river experience landslide on the river and they normally lose their homes and businesses and everything...yes, I have one in my family, my aunty, she is my father's sister and they lost their everything, business and house in the river. They moved to another city by themselves’ (Sonia).

I know some of those who have experienced flooding especially in the coastal areas, and they lost their homes and had to shift or migrate to other places within Bangladesh. Especially for flood related problems, with high river rise and their homes got covered so in such a dangerous situation the people move away to protect their life (Lupita).

A relative, two years ago they were living on the bank of a river, there was flooding and the whole home got sunk. Afterwards they migrated to the city since they knew that will happen someday, so they had a back-up plan’ (Mars)

There was actually one informant who experienced one of the devastating cyclones that happened in Bangladesh. In his words,

‘...a very important question related to Bangladesh. In Bangladesh there are 1-5 cyclones in a year and international calamities. When I was very young; that was in 1991-1992, there was a strong cyclone and half a million people died on this cyclone and some of my relatives lost their houses, cultivated lands and cattle were devastatingly destroyed. And in that time, you can see that it was a crisis. Even though I was very young I can recollect that there was a strong wind that night but fortunately we were safe because our house was made from bricks but almost 80% of the mud houses located near the seashore completely broke down and the flood size was about 15-20 feet. It was a catastrophe and I also remember that as a primary school student

the roof of our school was made of steel which got completely broken down and the educational system was put on hold/stopped for about two months because the school structure was broken down and no one was allowed to enter the class. The people living in the coastal areas migrated to high level areas of the country, but I cannot tell if they migrated out of the country afterwards. The government and NGOs like the Red Cross helped a lot to rehabilitate the people'' (Saturn).

The above empirical findings suggest that these impacts/stressors make Bangladesh highly vulnerable to climate change as compared to other developing or developed countries. The informants agree that the consequences of climate change for Bangladesh affect most people living in the coastal areas. These people who are affected lose the capital assets such as homes, livelihood/business, etc. and the general pattern here is that those that have financial resources are able to migrate to other places by themselves. Another issue here is of class and uneven distribution of risks and resources. From the statements above, those who are poorer and live in mud houses, near riverbanks, and live on farming are more vulnerable to climate change.

5.3.2 Linking Climate Change and Migration

Reflecting on the previous submissions, the question to ask is, how do these factors/impacts/vulnerabilities affect migration flow or play a role in migration? Although in the responses on shared experiences of climate change impacts, informants cited that most of the people who were affected migrated to other places. However, since the main objective of this thesis is to assess how climate change may play a role in migration, they were asked a follow up question in this regard. Two informants had this to say;

‘‘It can sometimes, people who experience seasonal floods where their homes and lands are washed away, so they don’t have any land to settle on and therefore many people from the villages and people living near the rivers are migrating to the cities and the cities are getting more crowded so it is affecting the people living in the cities and therefore the people who have the chance or those who are wealthy to go abroad take the chance to migrate so there is upward migration from city to city and country to country. The educated ones are also leaving since if things are a lot worse in our country, they could find another place to pursue their career and to live their lives. A

lot of students who are highly educated are actually migrating from our country''
(Neptune).

“People will look for a place where they will feel much more comfortable. Even in the city, if people feel that the temperature is too high for them and crowded, they will migrate to other places or even outside the country if possible. So, people also find problems in very high temperature areas because of health issues” (Lupita).

Two informants were a bit sceptical on how climate change plays a role in migration. But after more discussion and reflection in the interview, one informant started to identify that climate change directly or indirectly plays a role in migration decisions with projection in the now or nearly future for Bangladesh. They said;

“I think it plays a role a little bit, for instance in 30-50years there will be no opportunity to grow the agricultural products, there are some people in Bangladesh who live on agriculture or have it as their livelihood. Some people who live in coastal areas and the only means of transportation is by water and those places are going under water so it may inform their decision to migrate to other countries. So definitely climate change is an important criterion whether people will make a decision to migrate to other countries especially in Bangladesh. Due to climate change some people living in the town Bhola which is near Myanmar are travelling to other countries like Australia, Canada, and other developing countries” (Saturn).

“Because when I was in my country, I never thought of climate change as a reason for migration. But as I think through, it’s happening...the capital city Dhaka is horrible. As a Bangladeshi, I will only move to Dhaka if I need to survive and if there is no other way because it's hell. If I have another option, I will choose any other cities since they are liveable. You can live there very happily. I also think people living in Dhaka are not there because of climate change but there are one or two cases. More are moving here for different reasons, money”(Mars).

On the contrary, one informant did not see climate change as a role factor in migration since according to her most of the migrants living in the cities are not ‘climate migrants’. She said;

“Like suppose a family lives in an area of which is affected by strong cyclones and landslides every year, they would want to relocate. Where I live is not like the area that is too much affected, that is the highlands are not affected, I think it is only the places that are much affected. We have about five to seven cities, but Dhaka is the capital city. I lived in Dhaka for almost 15 years because of my education and job. The migrants there are really marginal people who move to Dhaka. In Dhaka they choose the profession like the rickshaw, and they drive ‘porto’ (like a carriage but manually pushed) and work as day labourers. Most of them live in footpaths and slums, few are climate change related. Actually, climate change is not an issue in Bangladesh I guess for migration because the people who migrate from the country, live above the margin line” (Sonia).

The above statements suggest that informants shared varied views on how climate change plays a role in migration in the context of their country. Here climate change impacts/factors could be connected to other socio-economic push or pull factors that influence migration decisions. Probably, these informants that were sceptical are not aware of this. Another reason could be that they live above the margin line by referring to their educational status and also live in the highlands of the country that are not mostly affected by climate change impacts like the coastal areas where the majority of the country’s population resides. However, in the end they came into agreement that climate change indirectly influences migration decisions. There is also a general consensus on the consequences of climate change on migration not only at the individual level but also at the national level.

5.4 Conclusion

This chapter has focused on the presentation of data from informants’ perspectives on three basic categories that is, perception or knowledge of climate change, the impact of climate change in Bangladesh and perspectives on how climate change plays a role in migration. Overall, informants seem to be abreast with time about these climatic stressors of monsoon flooding, glacial lake outburst floods, earthquakes, hurricanes, typhoons, rising sea levels, drought, salinized agricultural land, desertification, etc. in their country, although they connected them in varied ways to highlight how climate change affect their country and may play a role in migration. The data presented will be reflected upon and analysed in the next chapter (6).

CHAPTER SIX: ANALYSIS OF EMPIRICAL FINDINGS

6.0 Introduction

The aim of this chapter is to analyse the empirical findings presented in the previous chapter (5) in light of the context of the study, the methodological processes and the theoretical concepts outlined in chapters two, three and four respectively. The primary objective of this study was to assess how climate change directly or indirectly plays a role in migration decisions and thus this section seeks to provide answers to the main research objective and sub-objectives. This chapter is divided into subsections that focus on areas such as knowledge about climate change, climate change and internal/external migration, power relations (how institutional structures/policies or politics may be playing a role in contributing to climate change and migration and exacerbating existing vulnerabilities), and finally consequences of climate change on fundamental human rights.

6.1 Knowledge about Climate Change

The empirical findings presented diverse ways on informants' knowledge of climate change and how they access information on such issues. Their educational level played a role in how informants' source/retrieve information about climate change with the media being the common source. Due to their higher education up to the master level, all informants seemed more interested in this topic and therefore the need to get knowledge or information about it. Their daily experiences with the weather and environment may have had an impact on how they view the situation in their country and generally see the climate change problem. Being 'ordinary people' and not climate migrants themselves, the increased research on climate change in general, and climate change and migration seems to have an impact on their understanding of this challenge and how it can possibly influence their daily life or to have been able to relate their life experiences to the phenomenon being studied.

In addition, as observed from the responses of informants on the word climate change, climate change can be looked at in different angles. Here, the findings suggest that since the word climate change is becoming a wide term, it is understandable that they all had the word global warming in mind once the researcher asked them to share their perspectives on this word. A possible reason is that global warming was a popular term or expression used by environmental scientists in the past years to describe how the earth's temperature is changing by rising and getting hotter (Conway, 2008). However, a close look at the literature reviews in the previous

chapters and specifically chapter two suggests that environmental scientists and current researchers in this field have taken on the term climate change to incorporate the other effects or impacts from this warming globe. Therefore, their focus on climate change related factors such as temperature rise and its challenges of floods, storms, extremely hotter summers/days, increased extreme weather and unpredictable heavy rains and monsoon seasons fit well into the climate change discourse explained in the preceding chapters of this thesis. This also demonstrates that a lot has happened to the 'world' since the first environmental scientists reported an increase in the temperature of the earth's surface which demands an attention to avoid repercussions in the near future.

Moreso, as a recall from the data chapter almost all informants cited the media as their point for sourcing information on climate change. In this vein, apart from their daily experiences with the weather patterns, informants' understandings of the term climate change are clearly much influenced by the media (either usual media or social media/blogs). Their concerns and worries about climate change are influenced by the media too in addition to their daily experiences. This is what other researchers have argued that sometimes the media's pervasive presentation of terrifying scenarios of the climate change makes people feel more anxious/concerned (Ojala, 2015; Ryghaug, Holtan Sørensen, & Næss, 2011); cf: (Persson, Lundegård, & Wickman, 2011; Strife, 2012; Threadgold, 2012).

Further, informants' responses also highlight IPCC's concerns on the impacts of climate change on health, wellbeing and livelihood due to environmental degradations such as increasing sea levels, floods, droughts and storms (IPCC, 2014). Informants are particularly aware of the geographical location of their home country and what may happen if there is one percentage increase in sea level rise. This perception falls in line with projections that have been made by climate change researchers for the next 50 years, specifically the situation for low lying countries and how it may exacerbate existing vulnerabilities (IOM, 2014; IPCC, 1990, 2014; Laczko & Aghazarm, 2009). A result from such a scenario may result in possible large migration flows from such countries as an adaptation strategy (see also Science for Environment Policy, 2015). However, putting Bangladesh in this context with the level of uneven income and wealth distribution, only a few of the population that have capital and human resources may be able to migrate out of the country.

Finally, while the impacts of climate change are being felt by humans, other living things are not left out. It is destroying the habitats of some plants and animals. For instance, animals and plants species that survive in colder temperatures that are struggling to survive may have to find new suitable environments or in worst situations, die. This supports the views of IPCC that other living things/organisms/species are also exposed to the continuous impacts of climate change which may lead to displacement (IPCC, 2014). This may be the situation in Bangladesh and probably in other parts of the world. In this vein, migration in the climate change discourse may be extended to the lives of other living beings, not only humans since they also try to relocate when their habitat can no longer support them.

6.2 Climate Change and Internal/External Migration

The starting point of the analysis in this section is on how climate change impacts Bangladesh. According to Piguet, Pecoud and Guchteneire the push or pull factors that influence migration processes can be political or socio-economic. However, to understand the role of the environment in migration dynamics, it is significant to examine how and why people are vulnerable to climate change, “as well as examining the different strategies they develop to cope with or adapt to environmental stress – migration being one among such strategies”(Piguet et al., 2011, p. 1). The empirical findings highlight how vulnerable Bangladesh is to climate change impacts and how other factors intertwine with these in migration decisions. This is supported by the article of Siddiqui who identified that climate change impacts have three main influences on population mobility in Bangladesh. First, both fast and slow-onset climatic disasters combined with climate variability for livelihoods, food insecurity, water availability, and public health; second, floods, which are common for most Bangladeshis; and third, cyclones generating mass displacement (Siddiqui, 2010).

Indeed, the reasons for migration whether direct or indirect causes/factors are complex. They may be factors at the individual or societal level. The common pattern among the informants was the need to further their education right from the onset during the interview sessions except one person who mentioned family reunification who eventually became a student as well. The findings show that, their conception of migration in their own life experiences, is a special case, that is migration to Norway for studies. This migration is specifically related to the issues of free and good quality higher education, prospects for future, welfare state, etc. This highlights that there are individual and societal level factors or “governmental” level factors that may

have influenced their migration decisions. Possible reasons may be that these informants chose to move because there are less possibilities, career limitations, limitations for personal and national development, etc. or they do not foresee a tangible better future for themselves in their home country. These reasons can be linked to the works of Ravenstein (1885) on the ‘‘Laws of Migration’’ and Lee (1966) ‘‘Push and Pull Theory’’ on dissatisfied factors and appealing factors that influence migration decisions discussed in the theory chapter. Similarly, these factors echo the possible dissatisfaction of these migrants of the current situation/events in relation to their country (push factors) and appealing possibilities (pull factors) of their current country of location (Dorigo & Tobler, 1983). Moreover, it can be seen here as argued by Kline (2003) that both push and pull factors were at work to influence their migration decisions. Although informants do not see any link between climate change and their migration experience, all these factors that are reflected in their stories in a way may be connected or related to climate change since no country is immune to climate change impacts not even Norway, although there are variations in the resilience and adaptive capacity among states (underdeveloped/developing and developed countries). Bangladesh being a developing country and Norway being a developed country will definitely adapt to the negative impacts of climate change differently.

In addition, the empirical findings suggest that there are push and pull factors coupled with climate change impacts shaping migration flow in Bangladesh, and these influence migration decisions. There are also resources both human and financial capital, that facilitate the migration process. Therefore, climate change impacts can be identified as both drivers/push factors and on the other hand intertwine with other pull factors in migration decisions. It plays both a direct role and indirect role in migration decisions. Firstly, climate change in the form of sudden events can drive people out from a location temporarily or permanently. These include instances such as monsoon flooding, glacial lake outburst floods, earthquakes, hurricanes, typhoons etc which are intense, unexpected, and dramatic. This manifestation can be identified as a direct role. Secondly climate change impacts can intertwine with other pull factors to influence migration decisions. It may manifest in the form of climate processes such as rising sea levels, drought, salinized agricultural land, desertification, increasing water scarcity and food insecurity which are slow in nature but gradually influences migration decisions. In this vein, the main idea will be to relocate to cities or new places that have better climatic conditions and for better economic opportunities, food stability, basic amenities, and better social amenities, etc. In this vein, these climatic impacts intertwine with these pull factors

in the planned area of relocation to influence migration decisions. This manifestation can be identified as an indirect role. These climate processes and climate events are classified as triggers of forced migration (R. A. McLeman, 2014). This reflects the general views of some climate change and migration researchers on the complexity of distinguishing climate change from other push or pull factors of migration as well as how they interact in migration processes (IOM, 2014; Lonergan, 1998). This drought perspective and land cultivation issues is well explained by Science for Environment Policy, (2015) and Laczko and Aghazarm (2009) as slow onset events that have long-term effects on agriculture, and when such people lose their source of livelihood, they might take decisions to migrate. In short, these suggest that the role of climate change in migration is multicausal and therefore distinguishing environmental/climate change migrants from other migrants is complex. In this vein, IOM notes, *‘Environmental and climate-induced migration is a multicausal and multidimensional phenomenon. Environmental and climatic factors are both drivers and pull factors, and they are mediated by economic, social, political and demographic aspects. All these different dimensions together define a community and an individual’s resilience and vulnerability* (IOM, 2014, p. xi).

In addition, the empirical findings suggest climate change is impacting already existing vulnerabilities in terms of housing and economic activities, as well as the educational sector. As one of the informants mentioned, during the cyclone that occurred in his time, children were not allowed to go to school for some time, and people with mud houses easily lost their homes as compared to people with houses made of bricks. Here, the impact of climate change has extended to the educational sector and when schools are closed for months, it may slow down the academic development of these children. Also, children in migrating families will have to face the consequences of late readmission in their new location or become dropouts if there is high competition for space in the schools they apply for. In the short-term or long-term some of these children may engage in social vices. This can be connected to the view of IOM that the increased frequency of extreme weather events would exacerbate already existing vulnerabilities in these countries, particularly in terms of livelihood, food security, health, and adequate water supplies. Furthermore, rising sea levels may make coastal regions and low-lying islands inhabitable, and competition for diminishing natural resources may create tensions, spark conflicts, and lead to displacement (IOM, 2014, p. 38). Aside from government interventions, in such situations, the question to ask is, is it the poor or resourceful that are likely to migrate? Invariably in such migration decisions, the more resourceful may migrate

easily and quickly as compared to the less resourceful/poor. This suggests that households/people that are highly vulnerable to the negative impacts of climate change are often the least resourceful to migrate. What happens to trapped households/communities in this context?

Also is climate change leading to brain drain in the poor and vulnerable countries? As one of the respondents shared his perspective that there is an upward turn in the migration process where people from the regions affected by climate change migrate to the cities and the educated people who get the opportunity are also migrating from the cities to other countries. He puts it this way: “... *upward migration from city to city and country to country*” (Neptune). As mentioned earlier that both financial and human capital also facilitates migration processes, here the people with secondary or higher level of education who have gained basic skills and cognitive resources in addition with the financial resources are taking the initiatives and risks to migrate.

Finally, the findings suggest that for those who depend solely on agriculture as a form of livelihood, migration becomes key as a form of adaptive capacity. Migration becomes a response to different climate change stressors, both climate events and climate processes, such as monsoon flooding, glacial lake outburst floods, earthquakes, hurricanes, typhoons, and rising sea levels, drought, salinized agricultural land, desertification, increasing water scarcity and food insecurity respectively. In this vein, although in the past nomadic people and pastoralists migrated often seasonally in response to environmental changes that are unfavourable (Laczko & Aghazarm, 2009, p. 13), in this modern times vulnerable families also employ migration as a coping mechanism to deal with the negative impacts of climate change. However, such migration processes are either temporary or permanent.

6.3 Power Relations (How Institutional Structures/Policies or Politics Maybe Playing a Role in Contributing to Climate Change and Migration and Exacerbating Existing Vulnerabilities)

This study tried to assess whether or not institutional structures/policies and politics may play a role in climate change and migration and exacerbating existing vulnerabilities. The starting point of this analysis here is connected to the interview questions on how informants get access to information on climate change. In line with this, one informant cited duality in the shared information from the NGOs and that of their government portals. Questions were raised in an

attempt to understand this form of duality. As a recall from the empirical findings in chapter (5), the questions raised are: what could be the cause for this duality? Could this be politics at play or some form of power relations that influence the information that should be posted on these government portals? In an attempt to answer these questions, it was relevant to assess the role of NGOs in climate change negotiations during conferences. The role of environmental NGOs and NGOs social related issues cannot be overlooked. NGOs have been recognized and valued by both international organizations and national governments for their role in monitoring the implementation of international treaties, their relevance in the organization of development projects, and their importance in the representation and education of civil society. They have played a significant role in a number of environmental treaties, and their function is becoming more defined. Their existence has also played an important role in the genesis and development of several international environmental treaties (Giorgetti, 1998, p. 115).

However, environmental NGOs and NGOs have free and open access to UNFCCC conferences as observers, allowing them to play a variety of important roles in international climate change negotiations. Having observer status means that they are not passive during the negotiation conferences, however, their presence encourages transparency during such negotiations (Karns, Mingst, & Stiles, 2004). The percentage of NGO participation in other sectors of development exceeds that of NGOs and Intergovernmental Organisations (IGOs) working together on environmental issues. The worldwide climate change discussions have piqued the interest of NGOs. However, their gradual involvement has had little discernible impact on the primary actors in the climate change debates and negotiations (Ibid, p. 818).

The above views highlight uneven power relations at the international level since the NGOs lack the political legitimacy to voice their views in the negotiations but can only indirectly work with the state representatives to ensure that the policies are followed or to make changes when needed. In the case of Bangladesh, this phenomenon may have been mirrored in how they handle the climate change information to the public. Here, since the NGOs lack this power and mostly depend on the benevolence of other organisations for support, they may resort to undertake social activities like research, advocacy and create awareness of the climate change situation to the public with up-to-date information, that means present the real situation on the ground. Probably by doing so, they may attract more donations, grants, and membership fees to continue to support themselves and the projects they seek to undertake in this context. On the other hand, the government being a dominant/active actor not only in the international

climate change conferences and negotiations/national conferences but the country as a whole due to the constitutional power that is vested in its executive functions, they may bolster their authority and political rights in providing climate change national programmes/conferences/information to the general public. Another reason could also be related to nepotism, being that most of the politicians and government officials employed in such offices may not be qualified and therefore may have little or no knowledge in climate change research. Like the informant said, *“our government is concerned about other things and not climate change. The government must listen to scientists on the climate change problem and rely on experts, but no, that is not the tradition in Bangladesh or Asia”* (Neptune). This statement is supported by the studies by (Raihan, Huq, Alsted, & Andreasen, 2010) who identified that in Bangladesh local politicians and government officials have relatively little knowledge about climate change and typically do not perceive it to be an issue on their desk. Local institutions are limited by a lack of capability for coordinated action and a lack of confidence and trust from the people they are supposed to serve (Raihan et al., 2010, p. 11). Therefore, *“capacity building of local government institutions is critical for climate change adaptation”* (Ibid, p. 11). These also highlights power relations in the society, by which power is exercised in various ways (Emerson, 1962; Lukes, 1974; Weber, 1978) in human interactions, during decision making and governance which directly or indirectly have undertones of social inequality.

In addition, the empirical data suggest that informants are much influenced by media as to their understanding of climate change since they do not consider climate change as a direct cause for migration, because the media or even government does not have the category “climate change related migrants”, even though it is clearly an underlying factor. This is highlighted in the studies by Anwer and Naser et. al, who argue that the NAPA and BCCSAP documents from the government of Bangladesh to address climate change issues in the country, acknowledge the fact that climate change-related migration has increased significantly, precise rules/policies for migrants were not addressed. Furthermore, national and local government institutions lack explicit plans to address the long-term socioeconomic implications of climate change, particularly for poor and vulnerable migrants (Anwer, 2012, p. 15; Naser et al., 2019, p. 7). This lack of policy gap in addressing climate change migration issues and climate change issues in general are a cause for exacerbating existing vulnerabilities. In this vein, there may be people living on riverbanks or coastal areas who may be enabled by the government to build resilience and adaptive capacity towards climate change without necessarily migrating, but this

is not the case. Therefore, such people will mostly find the means to migrate as a form of adaptive capacity and in the worst-case scenario, the vulnerability of those who do not have the means to migrate are exacerbated. Simply put by Naser et al. that there is a “policy gap and lack of understanding of climate migration and its long-term impacts on society and current urban system are the key limitations of the government to ensuring social justice for climate migrants, which is an emerging social challenge (Naser et al., 2019, p. 7).

6.4 Consequences of Climate Change on Fundamental Human Rights

Given the conceptual framework of this thesis, the climate justice as a concept is employed as an evaluative tool to examine the issue connected to human rights in the climate change and migration discourse. As a recall, there were three approaches to the climate justice concept discussed in the theory chapter (4); historical accountability, per capita equity sharing of greenhouse gas emissions and the rights principle related to fundamental human rights. However, the third approach was mainly reflected in the data accessed. Therefore, this analysis was derived from the empirical findings in chapter five.

Considering that Bangladesh is an agrarian nation and the primary livelihood available to most of the population is determined by environmental factors and the availability of natural resources, common flooding and other related disasters directly have an impact on the general wellbeing of those affected. The empirical findings suggest that climate change can be considered as posing a risk to human life and other species. It is challenging a plethora of human rights, that is, rights to food, education, life, water, health, work (livelihood), shelter, etc. However, there is disparity in how these rights are affected. Since some countries have the resources and capacity to curtail these violations while others do not. It is evident that most developing countries lack both human and financial resources, and the technology to adapt to anthropogenic climate change. Although everyone has the right not to suffer from the negative impacts of climate change (Caney, 2006) this is not the situation for most people living in Bangladesh, especially in the coastal zone mostly affected by climate change. Moreover, according to Wewerinke and Yu, due to financial, economic, and food problems, as well as expanding populations, they are already confronting significant difficulties in implementing their people's economic, social, and cultural rights (Wewerinke & Yu, 2010, p. vii). In this vein since Bangladesh is considered as the 8th populated country in the world, they are already facing

challenges in meeting the millennium development goals (MDGs) and this is being exacerbated by the impacts of climate change.

Further, there are two ways by which climate change violates human rights in migration decisions or those affected. Firstly, those who decide to stay due to lack of both human capital and financial resources to migrate are exposed to extreme weather events and unwillingly endure these negative impacts. Here IPCC projects that in the coming years if nothing is done about the current climate change problem, climate change is going to cause displacement in most countries, but in this situation most people in the developing countries will be exposed to extreme weather events since they are low-income earners and lack the resources to migrate (IPCC, 2014, pp. 8, 16). Bangladesh is already facing this challenge since those who are not able to migrate and without government intervention are left to their fate. Secondly those who decide to migrate face human rights challenges during the migration process and, in the communities or cities they arrive in. The studies by Ahsan revealed that climate migrants living on the outskirts of Khulna in Bangladesh are particularly vulnerable to floods and waterlogged land. Simultaneously, the complicated metropolitan government systems in these urban areas lack legislative initiatives to identify and assist new arrivals with basic services (Ahsan, 2019, pp. 190, 194).

Finally, invariably in both scenarios, the basic human rights to life, development, food, self-determination, health, water and sanitation, housing, education, to meaningful and informed participation and that of future generation are violated by climate change (UN-OHCHR, 2015, pp. 13-24). Most island states are in this situation, not only Bangladesh. The question to ask is, what is the way forward since people's rights are being violated daily due to climate change? In this regard, it is relevant to refer to the Mary Robinson Foundation's five principles to climate justice which contends for sharing "benefits and burdens equitably, ensure that decisions on climate change are participatory, transparent and accountable, highlight gender equality and equity, harness the transformative power of education for climate stewardship and use effective partnerships to secure climate justice" (Mary Robinson Foundation-Climate Justice, 2011, pp. 1-3). These principles are inclusive as it highlights the fact that all things being equal, in addressing the current climate change problem, highly vulnerable communities/countries must be assisted to survive and be natured to develop simultaneously.

6.5 Conclusion

The general understanding that may be drawn from the findings shows that climate change is a complex natural phenomenon with social and political aspects which have varied meaning to individuals in different locations and this is sometimes influenced by the way the media presents information on climate change to the public. With regards to the conception of the word climate change, all informants demonstrated a greater knowledge of awareness and the importance of getting information on it. They also understand that Bangladesh is highly affected by climate change as compared to other developing and developed countries. In addition, climate change plays a direct or indirect role in migration decisions in the context of Bangladesh due to both climate events and climate processes which intertwine with other pull factors. Finally, the interpretation of the data in light of climate justice highlights that climate change negatively impacts the fundamental human of countries that are highly at risk to adverse impacts of climate change and exacerbate vulnerabilities.

CHAPTER SEVEN: SUMMARY AND CONCLUSION

7.0 Summary

The research has examined the ‘ordinary people’s perception on how climate change plays a role in migration decisions. Three specific questions that were set forth in this enquiry and analysis are;

- (i) How do young people or ‘ordinary people’ perceive climate change?
- (ii) How do the ‘ordinary people’ perceive the role of climate change/environmental degradation in migration?
- (iii) How does the impacts of climate change affect the basic human rights of the migrants?

The thesis assessed primary data through semi-structured data from ‘ordinary people’ from Bangladesh who at the time of this research were ‘living’ in Norway as a student/family migrant to understand how they perceive this phenomenon and not the migrants themselves who have encountered the adverse impacts of climate change. Therefore, the thesis contributes to the understanding of how climate change directly or indirectly plays a role in migration/migration decisions and how this extends to affect the basic human rights of such migrants. This research somehow revealed the socio-economic and political factors that create vulnerabilities and social inequalities in relation to climate change, specifically in the lives of such migrants and also for underdeveloped/developing countries.

Firstly, in line with the climate change awareness question, all informants showed a high level of awareness and found the issue to be important. However, they identified that for Bangladesh, the effects/impacts of climate change are adverse and affect the lives of most people living in the coastal areas and those who depend on agriculture as a source of livelihood. These people are mostly identified as the marginal poor in the society.

Also, in relation with the second research question, the discoveries from the analysis of the empirical data revealed that climate change plays both a direct and indirect role in migration decisions. Direct role such as sudden onset of events in the form of cyclone, tsunamis, etc. happen in few cases as compared to indirect role such as climate stressors in the form of coastal erosion, sea-level rise, extensive droughts, heavy flooding, changing rainfall patterns and salt-water intrusion. In such situations, the people will move from such higher vulnerability areas

to less vulnerable places mostly within the country. These migration decisions are also influenced by both human and capital resources, with those more resourceful in this context taking the initiative and risks to relocate/migrate. Climate change impacts also intertwine with other pull factors such as better economic opportunities, better wellbeing/welfare, etc. to influence migration decisions.

Finally, the third research question was discovered in the data collected. Here, invariably climate change challenges the fundamental human rights of such people by ‘stripping’ them of their rights to food, livelihood, shelter, health, adequate standard of living and even lives to some extent. This corresponds to the report by UN-OHCHR (2015) and the work by the Mary Robinson Foundation, (2011).

7.1 Conclusion

The thesis revealed that the media influences and shapes how people perceive climate change in addition to their daily experiences of changes in the weather. One interesting finding was that, although informants perceive the issue of climate change as important, they displayed a level of anxiety towards the current consequences of climate change and in the near future, and this could be linked to the media’s portrayal of the climate change discourse (Ojala, 2015; Ryghaug et al., 2011). The research to some extent also mirrored the term ‘*climate migrants*’ as expressed by some climate change researchers. In this vein, people who need to relocate due to climate stressors become ‘*climate migrants*’ (El-Hinnawi, 1985; Myers, 2002; Myers & Kent, 1995). On the other hand, since there is no categorisation of such migrants in both international and national documents, and in the context of Bangladesh it has influenced/shaped the way ‘ordinary people’ see such migrants. Their protection rights are therefore at stake.

Moreover, due to uneven level of income distribution, wealth and resources in Bangladesh, and also in terms of risks to climate change impacts, there is disparity on how the people deal with climate change related issues and life in general. Those who are highly at risk to such impacts become more vulnerable. It challenges their basic human rights in their original habitat/location, migration journey’s and even at their temporary or permanent destinations. Finally, it finds that there is some form of unequal power relations on how government institutions deal with the climate change issues/situation further exacerbating the lives of those who are highly at risk/vulnerable.

To conclude, indeed, the factors that influence migration whether direct or indirect are complex and therefore it is complex to separate climate change from other push or pull factors that influence migration decisions.

Limitations of the Research

The study was mainly conducted in Norway. The findings may therefore not be completely representative of all 'ordinary people' from Bangladesh.

There was less time, resources, and inability on the part of the researcher to obtain primary data/information from Bangladesh due to the COVID 19 pandemic and visa issues. A more detailed and elaborate field work process could have taken place if these were available.

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APPENDIX 1: INTERVIEW GUIDE

Introduction: Greetings and informal conversation to establish rapport with the informants, introduce the research topic, address any questions they may have regarding the research, provide clarification if needed and receive an informed consent confirmation from the informant.

Afterwards I will seek permission to record and ensure them of confidentiality and anonymity. Recording begins and interviewing starts:

Background information

Basic information about the informant (age, gender, level of education, marital status, number of years lived in Norway).

- i. Did you grow up in Bangladesh?
- ii. Do you still have contact with relatives in your home country?

Perspectives on climate change

- i. How do you get information about climate change issues in your country (internet, television, newspapers, etc.)?
- ii. What comes to mind when you hear the word climate change or what do you know about climate change?
- iii. What are some of the climate change problems in your country? or How does climate change affect your country?

Perspectives on how climate change plays a role in migration

- i. Can you share your story of why you migrated from your home country?
- ii. Have you/relative ever been affected by the impacts of climate change such floods, heavy waves washing of walls or buildings, droughts, land slide, etc?
Yes/No
If yes, can you share your/their experience.
- iii. Based on your knowledge/views about climate change, how do you think climate change might cause people to migrate? or play a role in migration?

Further comments on research are welcomed.

Thanks a lot for your time.

APPENDIX II: INFORMED CONSENT NOTE

Would you like to participate in my research project about ‘Climate Change and Migration’?

Dear Participant:

My name is Charlotte Odokai Ako-Charway, and I am a master student at Nord University, Campus. My master’s degree will be in social science, with a specialization in Climate Change and Politics. As part of the master program, I am doing this research for my master thesis.

This research focuses on how migrants understand and reflect on the issue of climate change especially in relation to their decision-making to migrate. The interconnection between climate changes and migration has been addressed in UN-documents and research papers, but there is a lack of the perspectives of migrants themselves. For this purpose, I would like to invite you to participate in my study. I believe that your experiences and perspectives would provide me with valuable information and insight into this topic. Your participation will be in a form of a short interview, lasting about 45-60 minutes.

During the interview I will make detailed notes in addition to an audio recording. This is to ensure that I will not lose any of the important information provided by you. I will delete the recording once the interview is transcribed. Afterwards, I will anonymise the whole interview and make sure that your identity will not be revealed by any means. You can choose to withdraw from the interview at any point without any explanations and you do not have to provide responses on related areas you do not want to talk about.

NB: The research has been ethically approved by the Norwegian Centre for Research Data (NSD).

If you are interested in participating in my interviews, please contact me.

Email: charlotte.o.ako-charway@student.nord.no or naalotte@gmail.com

Mobile no.: +47 455 76 148

Kinds regards,

Charlotte Odokai Ako-Charway