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Migration, displacement and immobility after natural disaster: A case study of 2011 Thailand Flood

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Submitted to

Department of Politics, University of York
Department of Public Policy, Central European University

York, United Kingdom
June 2014

World Count: 13,363

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my first-year supervisor Dr. Martin Kanahec at Central European University (Budapest, Hungary) and my second-year Dr. Neil Carter at the University of York (York, United Kingdom) for their kind support and guidance throughout the preparation of this dissertation. I would also like to dedicate a special thanks to the Consortium of Erasmus Mundus Masters Program in Public Policy (Mundus MAPP) for this unforgettable journey I've had for the past two years.

ABSTRACT

The current approach in the migration-environment literature often neglects the non-occurrence of migration in the aftermath of natural disasters. By recognizing "immobility" as an additional post-disaster migration outcome, this dissertation focuses on so-called "trapped" or "immobile" populations. In line with views supported by several scholars in recent years, the dissertation raises an important argument that *extreme environmental events may likely to make human movement less possible,* in contrary to the dominant discourse that suggests the otherwise.

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INTRODUCTION

Importance of the topic

The disciplinary divide between natural and social scientists has long fueled the debate on the potential impacts of environmental change on population movement (Myers, 1997; Black, 2001; Castles, 2002; Piguet et al., 2011). While the environmental experts stressed "alarmist" predictions on the direct relationship between environmental degradation and resultant human migration, the migration scholars considered environment as one of the drivers among political, economic and social factors that could trigger movement of people (Piguet et al., 2011).

Given the limited knowledge and research deficiencies in the field of migration-environment literature up to date, the estimated impacts of environmental change on human movement still remain much debatable. Nevertheless, such disciplinary divide seem to be gradually becoming to some extent consensual nowadays: The recent years began to see a strong consensus among scholars and policy-makers that the incidence of environmental events is indeed increasing and that the extent of resultant population displacement is also on the rise (Hugo, 2008). Particularly in the context of climate change, there is growing international concern at the rise in the severity and frequency of three broad sets of environmental events: 1) tropical cyclones, heavy rains and floods, 2) droughts and desertifications, and 3) sea level rise (Foresight, 2011; Piguet et al., 2011). The underlying argument is that, although climate change does not directly displace or cause people to move, it is anticipated to produce environmental effects that would make difficult

for people to survive where they are, which in turn further promoting movement of people (Naik, 2009; Brown, 2008).

The recent statistics seem to corroborate this claim. According to the International Displacement Monitoring Center (IDMC, 2011; 2012), more than 90 percent of disaster displacements over the past five years were caused by weather related, such as floods, storms, tornadoes, all of which have thought to be influenced by climate change (ADB, 2012). In 2012 alone, for example, it is recorded that more than 32 million people left or were forced to flee their homes due to events triggered by natural disasters (See Table 1).

Table 1. Global estimates for the number of displaced persons 2008-2012 (millions)

Type of disaster	2008	2009	2010	2011	2012
Weather-related	20.3 (54%)	15.2 (91%)	38.3 (90%)	13.8 (93%)	31.7 (98%)
Geophysical	15.8 (46%)	1.5 (9%)	4 (10%)	11 (7%)	0.7 (2%)
Total	**36.1**	**16.7**	**42.3**	**14.9**	**32.4**

Source: Global Estimates on Natural Disasters (IDMC, 2011; 2012)

As Naik (2009) reiterates the estimates recorded by the UNISDR (United Nations Office for Disaster Risk Reduction), the outbreak of sudden natural disasters has increased threefold over the past thirty years. It may come difficult to refute this claim by looking at the past decade alone. Indeed, a number of devastating weather events had taken place resulting in a large population displacement, notably, the 2004 Indian Ocean Tsunami, 2005 Hurricane Katrina, 2010 Haiti Earthquake, 2011 Fukushima Earthquake, 2011 China floods, and the list goes further on to the most recent event in Europe, the Balkan floods in 2014. Given the increasing strength and unpredictable scale of natural calamities across globe, understanding the linkage between environment and migration (and displacement) appears ever more critical today.

Contribution of study

Knowledge Gaps What seems to be lacking in the global estimates shown above, however, is the absence of contextual specificity. Existing migration statistics nowadays, including the above-mentioned IDMC Global Estimates on Natural Disasters, have succeeded in recording the incidence of natural disasters and the overall number of people affected across the world; and yet, such global forecasts have some shortcomings as they do not necessarily capture *the dynamics of migratory flows taken place at the local and national level* (Laczko and Aghazarm, 2009). As will explained in the later section of this dissertation, many different forms of mobility outcomes and patterns can be found in the wake of environmental change, often determined by the types of disasters, the scale and destruction of events, or by regions and groups affected as well as their socio-economic factors. For this reason, there is an increasing demand for developing a case study in order to better analyze the *local-specific context*, which is substantially lacking in the current level of research today.

Policy Challenges Further challenges can be found in policy perspectives. Given the increasing frequency and unpredictable scale of future environmental changes, and its uncertainty about potential impacts on human migration, strengthening policy actions is even more essential. Ongoing disciplinary divide and research limitations in the migration-environment nexus – which will be thoroughly reviewed in the Chapter 3 – have greatly hindered the policy makers in effectively identifying and formulating adequate policy responses to various migration outcomes. Due to an incomplete knowledge in this field, there remain many uncertainties about how the future migratory behavior among populations will be ensued in the face of extreme environment events (Foresight, 2011). In

this regard, there is a strong demand for identifying and incorporating various migration patterns of post-environmental events into policy-making process. Laczko and Aghazarm (2009) underscore this need:

> In order to manage the movement of people more effectively, policy makers need to take into account that *full spectrum of responses at various stages of movement* from prevention, mitigation and adaptation to migration (voluntary and forced) to return or settlement and finally integration in the final destination area (Laczko and Aghazarm 2009: 25).

Further Contributions While recognizing the importance of understanding migratory responses and the lack thereof, this dissertation also points out that migration does not always occur in response to the changes in the environment. In the existing migration-environment literature, a greater focus has been placed on the assumption that environmental change, particularly sudden-onset natural disasters will likely to trigger subsequent human movement; on the other hand, studies regarding the non-occurrence of migration remain rather few and often neglected (Black et al., 2012). Understanding the linkage between environmental events and subsequent movement equally requires a thorough understanding of the absence of movement. A danger in the current approach focusing on post-disaster human movement (or displacement) could mean that neglecting important policy concerns for those who stay behind, unwilling to or unable to move in the event of natural disasters. As such, the notion of "trapped" or "immobile" (Foresight, 2011), or "stranded" (Collyer, 2010) groups raises equally important concerns as those who migrate or displaced. Hence, in line with views supported by several scholars (Malmberg, 2005; Foresight, 2011; Black et al., 2012), this dissertation raises an important argument that *extreme environmental events may likely to make human movement less possible in contrary to the dominant discourse that suggests the otherwise*.

Objectives of study

In recognition of knowledge gaps and evolving policy concerns above, this dissertation is a modest attempt to narrow down the said challenges in migration-environment nexus. To this end, this paper reviews theoretical linkage between migration, displacement and environmental change, particularly with a focus on natural disasters. Literature on the migration-environment nexus is a relatively new field in the migration studies, which therefore requires a thorough understanding on this specific discipline. The dissertation conducts an extensive literature review, by identifying theories and migratory patterns as well research gaps and limitations raised in the current debate.

Despite the complexity of the discipline, this study rather departs from a simple question: What are the migratory responses after natural disasters? What patterns of movement among people can be identified? What are the post-disaster mobility outcomes? In attempts to move beyond predominant narrative on the interrelationship between natural disasters and (forced) migration (and displacement), the paper also aims to understand the absence of movement – immobility – as an additional form of migration outcomes in the wake of natural disasters. From this perspective, the dissertation raises additional questions regarding immobility: Who were the "trapped" or "immobile" populations, and what are the underlying causes behind their vulnerabilities?

In contrary to the conventional discourse about anticipated occurrence of post-disaster movement, extreme environmental events are equally likely to make migration less possible (Foresight, 2011). However, as Naik (2009) underscores, the incidence of natural

disasters do not solely generate risks and conditions that will trigger the movement of people. Rather, it is often the result of the *intervening factors* that could increase or constrain one's vulnerabilities to natural hazards and other subsequent dangers. Of possible explanatory factors, there's well-established knowledge that one's ability to move from the affected area is positively correlated with wealth and financial, social and human capital. Other underlying root causes behind one's immobility could also stem from existing ineffective government policies that could exacerbates immobilizing effects of certain vulnerable groups in the society (Malmberg, 2005; Foresight, 2011; Black et al., 2012).

Against this backdrop, the dissertation examines a case study of the 2011 Floods in Thailand. The main aims of my study are outlined as below:

Research Objectives
1. To understand theoretical linkage between migration, displacement and environment
2. To identify research limitations and current debates in the migration-environment nexus
3. To understand various patterns and outcomes of migration in post-natural disasters
4. To explore the extent to which existing government policies have exacerbated vulnerabilities of trapped or immobile groups and constrained their ability to move

Methodology and Case selection: 2011 Thailand Floods

The nature of this study is qualitative, given the data challenges and several research limitations identified in the Chapter 2. The dissertation selects one single case study in order to develop a local-context analysis, what is exactly lacking in the migration-environment nexus as explained earlier. Recognizing geographical importance of the Asia-Pacific region as well as its potential impacts on human movement in the wake of increasing climate change, the below outlines main rationales in making a case selection. For reasons

outlined below, the 2011 Thailand flooding case is believed to serve as a good example to explore the linkage between migration, displacement and natural disasters, but also as a case study that clearly highlights the incidence of "trapped" or "immobile" populations.

Asia-Pacific Region In line with the global estimates shown in the beginning, a similar trend is found in the Asia-Pacific region: Weather-related (hydro-meteorological) disasters occur much more frequently than geographical disasters, and flooding and storms are found to be the most common types of events causing the most economic and social damage in the region. The Asia-Pacific, better known as "the world's disaster hot spot" (ADB, 2012), is most prone to various natural calamities, "both in terms of absolute numbers and populations affected" (Phongsathorn, 2011). Furthermore, as the region is mostly comprised of developing countries where populations may not have invested heavily in protection against natural disaster events, the risks of displacement in the region therefore remain much critical than any other places in the world. In 2010 alone, the Asia-Pacific region experienced displacement of more than 42 million people who were affected by extreme environmental events (ADB, 2012).

Thailand Likewise, natural disasters are not uncommon in Thailand, a country marked with a long history of frequent environmental calamities, especially by hydro-meteorological phenomena such as floods, landslides, storms and droughts. Indeed, ranked as the seventh most flood-prone country in the world (WB, 2012), Thailand has experienced frequent floods in the past. According to the statistics from the World Bank (2012), from 2002-2008 the country experienced floods an average of 10 times per year, affecting more than average 44 provinces and resulting in more than THB 5.88 billion economic loss.

Particularly, the country's capital city, Bangkok, is considered a high-risk and hazard prone city given its coastal location. Situated in a central floodplain the Chao Phraya River basin, Bangkok is exposed to an average elevation of sea level and frequently experiences a tropical monsoon climate with heavy precipitation between May and October. Further important implications of the city should be noted in terms of its economic and social factors. While it is one of the most disaster-prone areas, Bangkok is also one of the Southeast Asia's most dynamic urban cities with an increasing number of populations and economic activities heavily concentrated. In fact, it is home to more than 24 percent of the entire population of the country (Foresight, 2011) and attracts a large number of migrant workers from neighboring countries. Given this geographical and economic importance of the city, the Thailand case draws an urgent attention. Especially, in the context of climate change, future weather events are anticipated to be more frequent, including coastal flooding and land subsidence, which will affect large number of Bangkok's residents as well as migrant workers.

In this dissertation, urgent attention is particularly given to the plight of migrant communities in the wake of the 2011 floods. The flooding events in 2011 have revealed once again the most vulnerable and marginalized populations in Thai society, namely, migrant workers from Cambodia, Lao PDR and Myanmar. These migrant workers are often living in the edge of the society with low financial means and social protection, as they mostly are estimated to be illegal and undocumented. Given this precarious legal status, they remain vulnerable not only to various forms of exploitations – deportation, arrest, extortion and violence, but also, as the case study will further demonstrate – to natural disasters.

Structure

In Chapter 1, the thesis unravels existing migration theories to explain the relationship between migration and environment. By establishing theoretical background, it offers a way in which environmental factors are conceptualized in conventional migration theories. Followed by a systematic review of literatures on migration and natural disasters, Chapter 2 discusses the main academic debates and research challenges in the migration-environment nexus. In the subsequent Chapter 3, it extends to discussing literature on immobility to establish a contextual framework for the Thailand's case study. In Chapter 4, it opens up by providing a brief account of the 2011 Thailand floods, describing economic and social impacts brought by the disaster. The dissertation specifically draws attention to, but not limited to, Thailand's capital, Bangkok, in order to examine specific challenges faced by migrant workers during the flooding events. Hence, in Chapter 5, the dissertation turns to examine exiting Thai government legalization policies towards migrant workers, in attempts to explore to what extent migrant worker's mobility has been hindered by existing policies. While the low human capital and precarious legal status of migrant workers are one of the factors that shape vulnerability to natural disasters, the dissertation argues that ineffective legalization policies of the Thai government are a crucial factor that exacerbates migrant worker's immobilizing effects and consequences.

CHAPTER 1: Migration and Environment

Chapter 1 provides definitions for key terms that will be used throughout the paper. This Chapter then develops theoretical background to understand how environmental factors are conceptualized in existing migration theories.

1.1. Key Definitions[1]

The term '***migrant***' used in this dissertation refers an individual who has changed his/her usual place of residence, either in the act of crossing an international border (***international migration***) or in the form of movement within a country of origin to another region, district or municipality (***internal migration***) (UNDP, 2009). It is commonly understood that a period of *three months or more* is considered to be ***migration***, a voluntary movement from one place to another (Foresight, 2010).

In this context, ***mobility*** is defined as "the ability of individuals, families or groups of people to choose their place of residence" (UNDP, 2009: 15). As Bakewell (2010: 19) explains, human mobility encompasses two types of movement, namely, 'migration' and 'displacement.' Simply put, ***displacement*** is a particular subset of migration, with a less voluntary movement involved. In other words, it falls within a broader set of migration processes, in which individuals are forced to move against their will (if within the country of origin, it is referred to ***internal displacement***). As will be elaborated in the later section of this Chapter, it is not always clear to draw a boundary between what precisely constitutes

[1] Key terms used in this dissertation are largely based on the 2009 Human Development Report ("Overcoming barriers: Human mobility and development") by the United Nations Development Programme (UNDP) and several other sources of scholarly works as cited above.

voluntary (migration) and involuntary (displacement) movement. Despite blurred conceptual distinctions as such, Foresight (2011) notes that these two terms are nevertheless used interchangeably in the literature, and given this in mind, this dissertation overall will use the term 'migration' as an umbrella terminology to incorporate those two terms unless when specified.[2] In contrary to these basic terms which involve movement of people, the term ***immobility*** denotes the absence of migration (Jonsson, 2011).[3]

Last but not least, existing literature on the relationship between environmental change and migration has largely been dominated by the definitional issues over a wide collection of terms and phrases, including 'environmental refugees', 'climate change migrants', and 'environmentally displaced persons' – which will be discussed in Chapter 2. In line with the position taken by the International Organization for Migration (IOM)[4], this dissertation uses their working definition of 'environmental migrant', to which refer:

Environmental migrants are persons or groups of persons who, for compelling 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)

[2] Despite a lack of conceptual divide between those two terms, it is important to distinguish them when needed, as they entail different policy challenges especially in the context of migration-environment literature.

[3] As Jonsson (2011) points out, the absence of migration can be denoted in various terminologies which may carry a certain normativity, and it is therefore important to clarify the meaning of each term to help guide my analysis. For instance, it can be conceptualized in the form of binary structures of sedentarism vs. immobility, which implies a positive and negative normative characteristic, respectively. The former perceives the absence of migration as the norm and ideal whereas the latter considers it as an undesirable condition. Nevertheless, Jonsson (2011) clarifies that the term immobility does not necessarily carry an opposing connotation to a sedentaristic perspective always. In this case, the terms can be applied in a non-migration vs. immobility comparison, in which the former tend to imply non-occurrence of "cross-border (international) movement" while the latter recognizes various forms of mobility outcomes, thus becoming more encompassing and analytically "versatile." While recognizing different perspectives embedded in this term, this dissertation uses the term "immobility" without intention to project such negative or positive connotations.

[4] This working definition is chosen based on a number of reasons: It neither implies a mono-causal relationship between environmental change and migration as other imprecise terms would do, nor portrays migration as a negative outcome and evidence of a failure to adapt to environmental change.

1.2. Migration-Environment Nexus: Theoretical Foundations

1.2.1. Conceptualizing environment in migration theories[5]

Most theoretical efforts in migration studies have largely focused on understanding key drivers motivating individuals to move (micro-level) or global structure factors (macro-level) which induce migration (Faist, 2000). The most prominent neoclassical economics theory, for example, conceived migration as an individual choice based on a cost-benefit calculation, or migration to be caused by geographical differences in the supply of and demand for labor (Massey et al., 1993). Somewhat differently, the dual labor market theory perceives migration to be triggered by permanent demand for immigrant labor, an inherent feature of economic structure of developed countries. While micro- and macro-theories are predominantly present in the literature, there is also a meso-level study which focuses on social relations between families, household, neighborhood and kinship networks, all of which are thought to help reducing transaction cost of moving from one place to another.

To explain these theories in simpler categories, Black et al. (2008: 11) outlines three sets key drivers for migration: (1) *'Push'* factors related to the region or country of origin (i.e. political instability and conflict, lack of economic opportunities and access to resources); (2) *'Pull'* factors related to the region or country of destination (i.e. availability of employment and demand for workers, higher wages, political stability or access to resources); and (3) Intervening factors: facilitate or restrict migration (i.e. ease of transportation, family or social

[5] Migration is an interdisciplinary study which requires a wide range of theoretical approaches from disciplines from geography, sociology, economics and political science. Given this multi-faceted nature of migration studies, it should be noted that there is no single, coherent migration theory, but rather a fragmented set of theories that have evolved in isolation from one another or by disciplinary boundaries (Massey et al., 1993).

networks, government immigration or emigration policies, economic such as trade and investment ties, or social and cultural exchanges).

Having explained the basic components of migration theories, the question is raised as follows: Then, how can we conceptualize environmental considerations into existing migration studies? To explain this, Kniveton et al. (2009) points out to a number of theoretical frameworks that acknowledged the potential influence of environmental conditions in one's decision to migrate. In the 'stress-threshold' model posed by Wolpert (1966; cited in Kniveton et al., 2009: 69-71) the environment is conceptualized as a residential 'stressor' which creates strain that may lead to the consideration of migration, Similarly, Speare's (1974, cited in Kniveton et al., 2009: 69-71) 'threshold of dissatisfaction' model conceptualizes environment as a location that produces physical amenities or disamenities, and migration may triggered by individual experiences on levels of dissatisfaction. According to the 'value-expectancy' model of De Jong and Fawcett (1981 cited in Kniveton et al., 2009: 69-71), the role of personal preferences during the decision-making process may take an important role. In this sense, the motivation is thought to be driven by the interplay of values and goals, and one's search for more pleasant or less stressful residential location. In these approaches, environment is acknowledged only implicitly as a '*locational characteristic*' (Kniveton et al., 2009: 70). While the aforementioned theorists focused largely on a micro-level perspective identifying how environmental considerations may influence one's decision to move, others have taken a macro-level approach by looking at social, economic and geographic factors. Of these include Peterson (1958) who conceptualized environmental hazards as ecological "push" factor that yields people's movement to safer locations (Ibid: 71). In this case, environment

stresses and shocks act as a “push” factor in migration decision-making, and a relatively a safer destination is regarded as a “pull” factor.

In sum, the above has shown that a number of classical migration frameworks to some extent recognized the environment and its potential influence to induce the movement of people. And yet, the question of to what extent the environment affects migration decision-making process remains very much debatable today and this will be further discussed in Chapter 2.

1.2.2. Migration and displacement in response to natural disasters

As Hugo (2008) identifies, in the context of migration and environment four types of migration can be identified: migration induced by 1) natural disasters, 2) environmental degradation (e.g. desertification, deforestation), 3) climate change, and lastly by 4) large-scale mega projects (e.g. dam construction). Of these, natural disasters in particular constitute sudden catastrophes ranging from floods, storms, earthquakes, tsunamis, volcanic eruptions to hurricanes and cyclones (Naik, 2009). The outbreak of such natural disasters, as largely acknowledged in the literature, may trigger out-migration in a number of different ways. Post-disaster migration can occur when the affected areas become economically and socially unsustainable in the aftermath of the crisis (Naik et al., 2007). Migration can be regarded as a survival strategy adopted by people to confront the negative effects of disastrous events (Laczko and Aghazam, 2009). In line with theoretical approaches shown above, natural calamities may act as a ‘push’ factor which stimulates people to escape the affected area due to, inter alia, the loss of livelihoods, the pursuit of safer locations, shocks and fears of the event itself (Laik et al., 2009: 267).

With regards to migration in response to natural disasters, existing literature points out that movement – though it varies depends on the scale and duration of the disaster, regions and groups affected, etc. – can take various patterns and characteristics. Naik (2009: 269) categorizes mobility patterns into four sets of spectrum: (1) voluntary – forced, (2) temporary – permanent, (3) internal – international, and (4) vulnerability – resilience. First and foremost, it is argued that environment-induced migration is often placed on a "continuum ranging from totally voluntary to totally forced migration" (Ibid: 269). In this context, migration following sudden natural disasters tends to fall on the forced side of spectrum, because of its sudden occurrence of events, which produces little warning for people forcing them to flee with little or no alternative choice.[6] In terms of temporal and spatial dimensions, the literature supports the view that most migration following natural disasters is likely to be temporary and short-term distance, predominantly within the affected regions or countries, with a marked pattern of rural-rural, rural-urban and vice versa (Naik, 2009; Malmberg, 2005). Several explanations for this tendency for internal movement are because affected individuals or household may not have means to initiate long-distance movement which requires more financial resources, social networks and family ties abroad (Malmberg, 2005); particularly, those who are lacking social capital or wealth tend to instead migrate to areas of high environmental risk, such as poor rural areas or urban slums (Foresight, 2011). In addition, the occurrence of temporary and circular migration can be observed in post-disaster areas. This is often seen as a coping and adaptive strategy by individuals or households who leave the affected areas in search of a temporary job and return to relieve the burden of the household (Laik, 2009). Lastly but not lease, the

[6] On the other hand, when migration is induced by a slow-onset environmental event (e.g. land degradation), it is often considered that the threat is not as imminent, thus providing people with more time to assess their options. In this context, post-disaster migration can be placed towards the voluntary side of the spectrum.

literature also refers to the structural factors that render certain groups and regions more vulnerable or resilient to natural disasters, including race and ethnicity, wealth, gender, education and home ownership, among many (Ibid).

Alternatively, Piguet et al. (2011) distinguish three different forms of mobility outcomes, namely, temporary displacement (less than three months), short-term migration (3 months to one year) and long-term migration (more than one year). As explained earlier in the Section 1.1 (Key Definitions), displacement is considered a specific form of migration outcome in which individuals or groups are forced to make movement. Despite conceptual ambiguity between voluntary and forced (involuntary), there is generally well-established argument that slow and gradual environmental changes is likely to lead an increase in migration, whereas sudden-onset events are likely to result in displacement.

CHAPTER 2: Understanding the nature of current debates

Despite increased attention in recent years, the migration-environment literature, still in its infancy, continues to suffer from a number of methodological shortcomings, which are namely: 1) Terminology and definitional issues over "environmental refugee", 2) debate over evidence-based causality between migration and environment, and 3) the lack of migration data. This Chapter therefore aims to provide an overview of current research challenges, knowledge gaps and dominating debates in the field of migration-environment discipline.

2.1. Definitional issues over "environmental refugees"

One of the heated debates in the literature concerns the definition for people who migrate because of environmental factors. The main question is then what those should be called. In fact, the terms such as "environmental refugee" and "climate change migrants" have been found scattered through the literature to describe the whole category of people whose decisions are affected by environmental reasons. Myers (1997: 167), who played a prominent role in popularizing the term "environmental refugee" in the 1990s, referred them as "people who can no longer gain a secure livelihood in their homeland because of drought, soil erosion, desertification, deforestation and other environmental problems. […] they have no alternative but to seek sanctuary elsewhere." In response to Myers' claim, other scholars including Black (2001) and Castles (2002) argued otherwise. While it is generally acknowledged that environmental factors play a part in migration, the driver of migration is often linked to a combination of "push" and "pull" – a range of social, economic and political factors. Given this complex multi-causal nature of migration, the term "environmental refugee" provides little help in understanding specific situations of migration.

Hence, Castles (2002: 8) criticizes, "the term 'environmental refugee' is simplistic, one-sided and misleading. It implies a mono-causality which very rarely exists in practice." The controversy over the terminology also becomes arguable, especially when the environment is found to be a contributing, not a major factor behind migration; in this case, whether such migration can be/or should be called environmental migration is put into a question (Dun and Gemenne, 2008). The inadequate use of this term is further supported by the argument that most environmental migration tends to occur within affected countries creating internal migration rather cross-border migration, which in this case more applicable to refugees (Laczko and Aghazarm, 2009). For this reason, it is argued that "environmental refugee" is a "misnomer" under international law (Ibid: 18); unlike the single term "refugee", which is precisely defined by the 1951 UN Convention, "environmental refugee" significantly lacks a legal meaning (Brown 2008a).

As seen above, finding a consensus over definitions is deterred by discrepancies between scholars in viewing environmental migration as a specific field within migration studies, and others who consider it separated from classical migration studies. The lack of consensus has long left the migration-environment literature dividend into two broad categories – one of which is the work done by "minimalist" who suggest that the environment is only a contextual factor in migration decisions, while the other work by "maximalist" (or "alarmist") claim the environment as a direct cause for forcing people to move (Laczko and Aghazarm, 2009: 14; Piguet et al., 2011; 4). As explained in Chapter 1, some theorists regard environmental factors merely as a contextual consideration in migration studies, while some others argue that the environment can act as an immediate causal factor which forces people to move.

Despite ongoing controversy, developing an international consensus on the definition is essential. As Laczko and Aghazam (2009) underlines, having the clear definition will help guide the policies of respective governments and international agencies in regards to how to respond to population movement, and it will also contribute in generating precise statistics for those who migrate for environmental reasons. In the absence of an agreed international definition today, unfortunately the above benefits are neither applicable to the current literature nor foreseeable in the near future.

2.2. Difficulty of establishing causality

Although many scholars have recognized the potential influence of environmental changes on migration, the extent to which the environment itself is the primary and direct cause of migration remains to be the subject of much debate due to, inter alia, the difficulty of isolating environmental factors from other drivers of migration; the obscurity between forced and voluntary migration; and the increased complexity of migration patterns (Dun and Gemenne, 2008). Furthermore, the causes of migration are manifold, often affected by various economic, social and political forces. The scope and form of migration can be also determined by other contributing factors such as, the scale of the disaster and destruction, government responses, humanitarian aid, level of human capital and alternative resources in the affected area (Naik, 2009).

This does not mean that environmental factors are insignificant: As Castles (2002: 5) emphasizes, “they are part of complex patterns of multiple causality, in which natural and environmental factors are closely linked to economic, social and political ones.” Nevertheless, the complex migration process described above, in turn, raises the difficulty of fully

disaggregating the role of environmental changes from other factors driving migration. Given that fact that environmental processes are ongoing and omnipresent both in migration and non-migration circumstances, many researchers underlined a difficulty of devising a methodology that would accurately assess the impact of environmental change on migration (Warner et al., 2009: 205). This, with no doubt, presents the most critical research challenge in identifying environment as the primary driver of migration.

Furthermore, the multi-causal nature of migration raises additional debate which concerns the environment and its relations to voluntary and forced migration. Many argue that environment-induced migration can be a voluntary coping strategy or a form of adaption used by people for centuries. Others, on the contrary, claim that the environment is a direct cause of forced migration, particularly when people have little options but to move in the wake of sudden natural disasters (Naik, 2009).

Despite the prevalent debates as such, there is surprisingly lacking empirical evidence of the causal linkage between the environment and migration. And yet, a number of studies have sought to disentangle the complex causes of migration in efforts to find more evidence for migration-environment causal relation. Most prominently, the EACH-FOR Project (2008) funded by the European Commission researched a set of 23 comparable studies, which attempted to isolate the environment as the primary driver in migration.[7] Some initial findings of the case studies suggest that the environment is often an indirect,

[7] In light of the methodological limitations mentioned above, the Project mainly relied on gathering information about how migrants perceived the environment changes – as a way of measuring relative importance of environmental factors in their migration decision. Hence, the Project undertook a combination of the desk and field research, which mainly comprised of semi-structured expert interviews and questionnaire among migrants and non-migrants in the selected regions. Although the sample case studies in the Project are local-context driven and not representative on a national or regional scale, Laczko and Aghazarm (2009) recognize its contribution in identifying several research challenges, including researching migrants' perception of environmental risk in their decision-making processes.

rather than a primary, cause of migration. The Niger case study, for instance, shows how migration occurs when the people's livelihoods are negatively affected. While deteriorating environmental conditions – in this case, soil degradation and water pollution from ongoing droughts – are thought to have triggered migration decisions, it is argued that livelihood stress is considered to be the direct cause of migration, especially for the people whose livelihood mainly depend on environment (Warner et al., 2009; Naik, 2009).

Alternatively, some case studies have shown that migration can be viewed as a coping strategy adopted by people, rather than an immediate response to environmental hazards. As this was also the case for Niger, the study concludes that migration in Niger is often a survival strategy following the loss of livelihood in the villages (Warner et al., 2009). Similarly, Black (1998, quoted in Castles, 2002: 3) studies cyclical migration following desertification in the Sahel region, which is a cyclical phenomenon linked to decade-long rainfall patterns. In this study, migration is seen as "an essential part of the economic and social structure of the region, rather than a response to environmental decline."

In sum, case studies mentioned above have shown that there is no conclusive evidence of a direct correlation between environmental shocks and migration. These research findings demonstrated not only that the causes of migration are indeed manifold; but also that environmental reasons may not be always the sole driving factor behind movement of people, with the possible exception of extreme natural disasters which are more likely to result in forced migration. Hence, together with methodological limitations, establishing evidence-based linkage between the two variables remains utmost task to tackle in migration-environment nexus.

2.3. Data Challenges

The third challenge concerns migration data. Despite the increased attention in the migration-environment nexus in recent years, there is a lack of comprehensive data on natural disaster-induced migration, both at global and national level. The World Disasters Report by IFRC (International Federation of the Red Cross and Red Crescent Societies), for instance, provides extensive data on the number of people killed or displaced by natural and man-made disasters. And yet, the report falls short in providing systematic analyses as it fails to make distinction between those displaced by natural disasters and by non-environmental reasons, and between those migrated within countries and those who crossed international borders. In this regards, Naik (2009: 225) points out the weakness of this data collection: "They are not systematically compiled or analyzed at a global level; the overall picture of migration trends following natural disasters is, therefore, piecemeal." Furthermore, as mentioned earlier in the Introduction section, migration statistics tend to overlook the spatial and geographic dynamics of migratory movement at local and regional level (Kniveton et al., 2009: 205). To improve such deficiencies, there is a call for better data collection, especially location-specific statistics, to better capture the likely scale and pattern of movement in the aftermath of natural disaster.

The reasons for the lack of data are contributable to several factors including, as already discussed, the absence of an adequate definition on migrants affected by natural disasters and the inability to disaggregate the role of the environment from other economic, political and social forces (Laczko and Aghazarm, 2009). Although in recent years there has been several initiatives aimed at enhancing the current level of migration statistics,

investment in data collection on natural disasters is perceived to be relatively new and tend to be carried out on an ad hoc basis: Hence, Guha-Sapir et al. (2004: 15) raise the critique, "data on disaster occurrence, their effect upon people and cost to countries remain, at best, patchy" (Ibid: 15). Methodological shortcomings are further deterred by the fact that there is no single organization or institution at the international level, whose primary responsibility is to collect and disseminate statistics on natural disasters and its resultant migration (or displacement) (Brown, 2008a). In addition, the lack of a standardized system of data collection and interdisciplinary cooperation in the respective field of studies are one of the factors contributing to research limitations.

Further challenges can be found especially in developing countries which are more vulnerable to environmental changes. These countries often lack basis migration data, research capacity as well as human and financial resources. These are thought to be a significant limitation to develop a local-level, context specific analysis of a case study affected by environmental phenomenon, which is, as already emphasized in the Introduction section, a crucial component of addressing the current data challenges (Laczko and Aghazarm, 2009). With increasing frequency and the scale of climate change, it is becoming more difficult to accurately predict the likely scale of future weather events and its impacts on population movement. Given this context, today's lack of comprehensive data poses an important concern in the field.

CHAPTER 3: Immobility

Thus far, the dissertation has provided an in-depth literature overview on the migration-environment nexus, including its theoretical backgrounds, research limitations as well as main debates raised over the years. The next section discusses the potential for non-occurrence of migration in the wake of natural disasters and its subsequent policy concerns.

3.1. Immobility paradox

As discussed above, existing migration studies have long maneuvered to understand the causes behind the movement and the decision of people to migrate, as well as expected migratory patterns and outcomes. Migration theories seen above are the strongest manifestation of such attempts to understand the movement at the micro, macro- ad meso-levels. While a significant part of migration studies have well acknowledged various forms of mobility, certain aspects of mobility are often left out in the literature, particularly, the absence of migration and experiences of immobility in the wake of extreme environmental events (Black et al., 2012). As Jonsson (2011: 4) criticizes such knowledge neglect, "non-migration is rarely studied in its own right," very little research efforts and analyses have been put forward to understand the non-occurrence of migration.

"In fact, the vast majority of human beings remain in their countries of birth. Migration is the exception, not the rule", as Castles (2009: 7) highlights, it is only a small segment – merely 3 percent – of the world's population constitutes contemporary international migration (Schneider, 2008). Against this background, there are a number of scholarly works that attempted to make sense of the non-occurrence of movement.

Although there is currently no explicit migration theory explaining as to why some people stay behind, Malmberg's (1997) theory of immobility paradox[8] seem to shed some lights in this puzzle. According to his theory, an overwhelming majority of people may not have the means to embark migration, a costly process which requires financial and human resources. Other reasons include: people may have not thought about migration as a given option; or non-occurrence of movement can be due to the availability of alternative strategies to counter current living situations, personal ties to hometowns and families, among many. In sum, whether migration occurs or not depends on a series of intervening factors that may determine who moves and who stay behind.

Several empirical findings seem to support Malmberg's arguments. For example, limited access to government and external support is another important factor in increasing vulnerability of populations, which may lead to out-migration (Tacoli, 2009). As Castles (2002: 4) argues, "the key problem then is perhaps not environmental change itself but the ability of different communities and countries to cope with it." Unlike the conventional argument that disaster victims migrate from affected areas, other studies provide empirical evidence that this may not be always the case. Studies from the 2004 Indian Ocean Tsunami (Naik et al., 2007) and the 2004 tornado from north-central Bangladesh (Paul 2005, referenced in Kniveton et al., 2009) suggest that the occurrence of migration after natural disasters depends on the availability of alternative (prevention or coping) strategies and effective responses by communities and governments. Despite the tremendous damages caused by natural hazards, a mass exodus never occurred in both cases due to the rapid humanitarian

[8] Although Malmberg's (2005) work is developed mainly in the context of international migration between countries to countries, it nevertheless serves as a good theoretical background to understand various factors behind the non-occurrence of movement.

aid which managed to cushion the negative impacts of the crises (Naik et al, 2007). The Mozambique case study from the EACH-FOR Project also demonstrates the case where the inhabitants of the low-lying river areas were able to resettle on government resettlement centers in the aftermath of floods and tropical cyclones (Warner et al., 2009: 213). Hurricane Katrina case in 2005 in the USA was another example that highlighted the role of economic and social factors among affected populations. The study has found the damage was more intensified by poor disaster planning and consistent underinvestment in the city's protective mechanisms, among others (Brown, 2008a).

3.2. Recognizing additional mobility outcome

Hence, in line with Malmberg's (1997) and this dissertation underlines that migration does not always take place, particularly even in the aftermath of natural disasters. According to Black et al. (2012), three forms of different mobility outcomes can be found in post-natural disasters, namely, (1) displacement, (2) migration, and an additional outcome, (3) *immobility*. While criticizing the approach of current migration studies which neglects the possibility of non-movement, the authors highlight public policy concerns for those people remaining in the affected area after extreme natural disasters:

> *[Current typologies held by other scholars] omit an additional mobility outcome – that of people remaining in place during an extreme environmental event, which may be just as important in terms of exposure to mortality, morbidity, or economic loss, and therefore just as important in public policy terms. […]*
>
> *If we compare the numbers of people displaced with those 'affected' by natural disasters, those displaced generally make up only a small proportion of those affected, suggesting a much more substantial public policy issue for those remaining or trapped in situ for the duration of an extreme event.*
>
> *(Black et al., 2012: S36)*

In this sense, the notion of "trapped" or "immobile" populations (Foresight, 2011) arguably appears to be a more urgent category than other distinctions as shown earlier (between forced vs. voluntary, short vs. long-term, internal vs. international migration). Explanations as to why those populations do not undertake movement or escape during the disaster can be drawn in a similar logic provided by Malmberg (1997) and by Foresight (2011): that is, one's ability to move away from the environmental events is positively associated with factors such as wealth and level of financial, social and human capital, and vice versa for one's vulnerability to environmental threats. The below figure explains this argument:

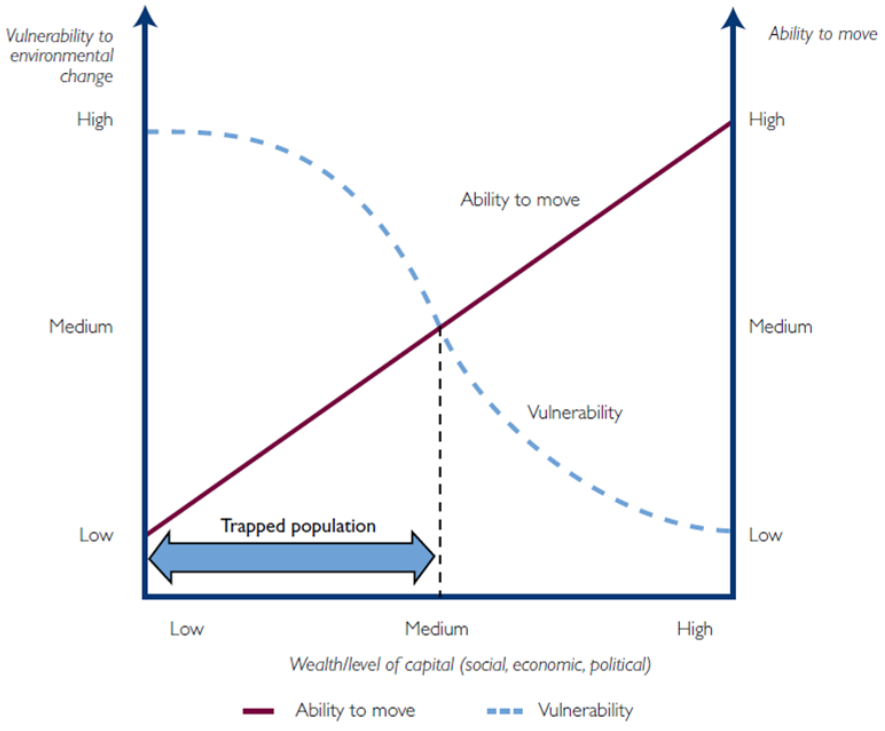

Figure 1. Relationship between "trapped" populations, vulnerability and ability to move

(Source: Foresight, 2011: 14. See Figure ES.2 Schematic representation of "trapped populations")

In other words, those with lower wealth and capital may not have enough means to undertake migration and possibly become "trapped" where they will continue to remain

vulnerable to environmental shocks and other risks; this is especially so when environmental events further damage important assets and livelihoods of already vulnerable groups, which could further make their mobility less likely (Foresight, 2012). For example, during the Hurricane Katrina in the US, the study (Brown, 2008a) has discovered that the events have disproportionately affected the population group: whilst the wealthy were able to migrate proactively, the lower-income and less educated population group were left in their homes or fled to shelters and areas that could be potentially more dangerous.

All in all, in contrast to conventional views that often assume the occurrence of human movement after natural disasters, this section has highlighted one of the most critical aspects that has largely been neglected: "trapped" or "immobile" populations may not be able to leave the area and could continue to remain under environmental, social and health threats ("double jeopardy", quoted in Foresight, 2011). This perspective raises an equally important policy concerns to policy makers. Given this policy implications, understanding those who migrate or are displaced after the extreme natural disasters equally requires an in-depth understanding and analysis of the absence of movement and those who may not migrate. In light of this, the dissertation now moves on to the 2011 Thailand flooding case study to examine those who were trapped in the wake of floods, and to further analyze the factors behind their vulnerable situations.

CHAPTER 4: A case study of 2011 Thailand Floods

The Chapter aims to provide a brief account of the floods and identify an overall picture of migratory patterns and responses by people in the wake of the Thai floods.

4.1. A brief overview of the 2011 floods

Thailand has frequently experienced a series of catastrophic flood events in the past: The 1983 flooding brought a cyclone which inundated the country for five months; 1995 saw a heavy rainfall which affected the largest recorded area in the country's history (WB, 2012). Nevertheless, the 2011 floods that swept 66 provinces of the country's 77 provinces considered one of the most unprecedented flooding Thailand has ever experienced.

The historic flood events initially began with a storm Haima which hit the northern part of the country in June 2011, brining 128 percent of the average rainfall. The following months of July and August subsequently experienced more than 150 percent of the heavy rainfall, caused from another tropical storm Nock-Ten which swept the northern region again. This combination of storms led to the extended period of heavy rainfall throughout September and October, reaching 135 percent and 116 percent of above-average precipitation, respectively (WB, 2012). The Bangkok Metropolitan Region, situated in the bottom of the Chao Phraya River basin, was flooded in early November when the rainwater drained from the northern downstream. The accumulated water from months of storms reached the central plains in the Chao Phraya River basin, eventually reaching inner Bangkok, especially north and eastern residential areas, along with surrounding industrial estates and nearby provinces (Ibid).

Needless to say, the 2011 floods one of the deadliest both in terms of its geographical and economic impacts: Of 77 provinces of the country, 66 provinces were affected, most of which are mainly in the northeastern and central regions. The floods not only brought tremendous losses and damages to essentially all sectors of the country's economy, but also affected the livelihoods of million people raising widespread health and social protection concerns towards flood victims. According to the report (WB, 2012) prepared by the World Bank and the Ministry of Finance of the Royal Thai Government, more than 5.1 million individuals have been impacted by the floods, including 1.9 million households and 562 deaths; furthermore, the total economic damage are estimated to THB 1.43 trillion (USD 46.5 billion).

As such, Thailand's early assessment of the impact of the flooding was largely formed in terms of economic and geographical extent, with an initial priority given to the estimates of economic losses and the number of provinces affected. The shift of the focus then quickly changed when Bangkok was flooded – a capital city that is home to more than 12 million habitants and where the country's vital infrastructure and industries, which produce around 42 percent of the total GDP, are located (Phongsathorn, 2011). Indeed, apart from enormous economic and geographical impacts brought the floods mentioned above, the 2011 event caused the highest levels of population displacement seen in the country since the Second World War (Ibid).

4.2. Migratory responses and patterns of displacement in post-flooding

In late October, anticipating the flooding from the northern region, the government of Thailand declared an emergency five-day holiday in flooded or flood-prone provinces,

including Bangkok, urging residents to evacuate to safer locations (WB, 2012). The slow progression of the floodwaters from the north affected provinces at a different time frame, making difficult to estimate the scale of affected people over the weeks. And yet, at the peak of the flooding in November, it is recorded that more than 5.1 million people have been affected; among them, a number of displaced persons are estimated to be 165,000, all of whom were evacuated to more than 2,600 shelters in post-flooding (Ibid; 11).

Based on documentation analysis on varying sources (journals, news articles sources, etc.), three broad forms of migration patterns can be identified: voluntary relocation, displacement (evacuation) and those who remained to "stay-and-fight." According to the research by the Forced Migration Review (Sophonpanich, 2012), it is found that thousands of people – those especially who received information and alerts concerning the floods (Doksone, 2011) – chose to relocate themselves voluntarily even before the arrival of floodwater. Although the residents had to leave their houses and many properties behind, many seem to have followed measures such as sealing up the houses or parking the cars on the higher ground to protect their assets during their absence. In many cases, a large number of residents preferred to flee the city entirely, many of whom moved towards the unaffected towns in the South, including Hua Hin, Pattaya and Phuket (Phongsathorn, 2011); or by seeking refuge with their friends and relatives; by renting out long-term rooms in hotels and other forms of accommodations in provinces and areas that were unaffected by the flood (Sophonpanich, 2012).

Besides voluntary migration undertaken by many residents, temporary evacuation was another pattern of movement identified in the midst of the flooding. Many residents were caught by the flood and forced into emergency shelters set by Thai authorities, in

places such as sports stadiums and university campuses in Bangkok (Ibid). Many families also sought a temporary solution by staying in public places such as bus terminals and train stations. After Don Muang airport, one of the main airports near Bangkok, was closed due to the flooding, it was soon packed with families camping out in a tent at the airline check in areas (Fuller, 2011). And yet, many of these temporary shelters were eventually flooded afterwards, forcing residents once again to experience "multiple displacements" (Sophonpanich, 2012: 16).

While many residents sought to find their refuge in those displacement shelters or nearby bus and train stations that are not inundated, or left the city entirely, some coping behaviors were also observed. This "stay-and-fight" (Ibid: 17) option was seen among those affected who chose to stay in the flooded areas. In this regards, Sophonpanich (2012) identifies three categories of those who stayed, 1) the first category of people were those who adept at living with water, especially those who generally live in parts of Thailand that continues to face frequent floods; 2) in the second category, it is the group of people who in fact had some resources to fight off the floodwaters by various means, such as building a wall, installing water pumps, putting sandbags around their houses to block the water, or by purchasing a motor boat; while this particular group was well able to protect themselves, 3) the third group of people were, as Sophonpanich (2012: 16) puts it, those "who for various social and economic reasons, decided against moving into collective centres but in turn lacked the resources either to move away or be self-sufficient at home." And precisely, these groups are referred to migrant workers, which will be further discussed in the subsequent Chapter 5.

CHAPTER 5: "Trapped" migrant workers

With no doubt, the 2011 Thailand floods was an event that triggered a wide range of high-profile issues concerning, inter alia, climate change, displacement, urban planning and disaster management policies. Above all, the flooding events have revealed precarious circumstances surrounding the most vulnerable and marginalized group in the Thai society, namely, migrant workers. Several weeks after the inception of the flooding, there were number of news reports of migrant communities who were trapped in the flood-affected areas. Despite the given media attention, little had been analyzed thoroughly about challenges face by them and underlying factors behind their vulnerabilities, which could be worsened by the Thai government's ineffective policies towards migrant workers.

Against this background, this chapter aims to provide clarity with regard to who was the trapped population and to what extent their experiences of immobility were embedded in their pre-existing vulnerabilities in Thai society. By doing so, this chapter raises two critical arguments: *First*, the sudden natural disaster is likely to make movement of people (or their ability to move) less possible – the aspect at which often overlooked in migration studies – particularly for economically and socially vulnerable groups in the society. *Secondly*, the pre-existing government policies towards migrant workers is arguably one of the fundamental and underlying factors that increased migrants' existing vulnerabilities, and thereby further hindering their mobility in the times of the crisis. For this purpose, the chapter examines flaws and gaps of the government's regularization policies – namely, Worker's Registration programs (amnesty) and Nationality Verification (NV) scheme.

5.1. A brief overview of migrant workers in Thailand

Thailand is a home to an estimated of 3.5 million migrants in either regular or irregular status working (Hall, 2011). Thailand's current status as a major net importer of migrants can be traced back to the early 1980s, when the country began to move from an agricultural to an export-oriented economy. Thailand's rapid economic growth in turn created a strong demand for lower-skilled workers fill the gaps in the work force, especially in a wide range of labor-intensive sectors. Migrant workers are from Thailand's neighboring countries, namely, Cambodia, Lao People's Democratic Republic (PDR) and Myanmar. Presently, migrant workers from Myanmar are the largest population, comprising roughly about 80 percent of total registered migrant workers.[9] Although precise statistics for irregular/unregistered migrant workers are unavailable, IOM estimates roughly 2.3 million of Myanmar migrants are working in Thailand today (Ibid). Given this, it is not an overstatement to say that migrants have nowadays become a permanent feature of the Thai society. Today, migrants are arguably the most integral part of Thailand's economy as the total migrant workforce (3.5 million) constitutes roughly 7 percent of the country's total working population. Many are employed in sectors and industries that are essential for the country's economy – particularly in fishing, seafood processing, sales and services industries, agriculture and construction (Hall, 2011).[10]

Despite their important economic contribution, issues concerning migrant workers

[9] The case study will mostly examine Burmese migrant workers, as they are the largest populations among migrants in Thailand.

[10] According to the International Organization for Migration (IOM: 2013), Fisheries, for examples, are one of the most migrant-dependent sectors in Thailand where 75 percent of the total labor force is composed of migrants.

have long been acknowledged by international organizations and various human rights NGOs. Migrant workers in Thailand are vulnerable to various forms of exploitation such as human trafficking, forced labor, sexual violence, while lacking proper access to basic labor rights, health care, social services, adequate housing – all of which make their living conditions extremely difficult. Of many explanations, the primary reason behind their vulnerabilities stem from the nature of their illegal status. As Hall (2012: 4-5) underlines, challenges faced by migrants are particularly as a result of the lack of their legal documentations. The paperless migrants are often due to their illegal status, or because documents have been seized by their employers, brokers or authorities as a result of their debt bondage.[11]

Given their pre-existing vulnerabilities, it is no question that migrants are exposed to many risks; but their vulnerabilities can be further worsened in the wake of extreme events. As Phonsathorn (2012: 17) emphasizes, "*the inability or unwillingness of certain sectors (i.e. migrant workers/communities) of Bangkok's society to move away from flooded or flood-prone areas stemmed from their pre-existing vulnerabilities in society*." As clearly seen during the floods in 2011 in Thailand, this was precisely the case for migrant workers.

5.2. Precarious situations of migrant workers during the flooding

As equally devastating the disaster was to local Thais, the floods affected the areas with a high concentration of migrant workers. Official statistics[12] show that there are over 800,000 migrant workers in provinces that remained inundated for several weeks (WB, 2012).

[11] Their debt bondage often results from using unregulated brokers or recruitment agency during their entry process to Thailand.
[12] This figure excludes irregular and illegal migrants who are not registered in the system.

The highest proportion of migrants, totaling up to approximately 392, 859, were residing in Bangkok, while a significant majority of others were thought to be living and working in local factories and construction sites – including industrial parks in Ayutthaya, Pathum Thani and Nakorn Pathom provinces where many migrants are employed (Phonsathorn, 2012).

5.2.1. Health-related risks & Food shortage

As discussed earlier, a significant portion of Bangkok residents temporarily evacuated to various locations – places of friends and relatives, evacuation centers around the city, nearby airports and southern provinces – in search of safer shelters. And yet, many migrant workers did not have the capacity to leave the city, and in turn became trapped in their residences for the duration of the floods. As the floods continued, the trapped flood victims became increasingly isolated while significantly lacking access food, clean water or electricity. This not only exposes them to safety risks of accidental drowning and electrocution, but also raises important health-related issues such as skin infections, dysentery, malaria and dengue fever (Phonsathorn, 2012).

5.2.2. Lack of access to external assistance

The concerns regarding those trapped and immobile migrants go easily beyond the health and safety issues. As many of them are lacking official documents and thus hold no legal status, they often become '*invisible*' to local authorities and humanitarian organizations in terms of receiving basic assistance: "They are not on lists. They don't exist, so they don't get help" (IFRC, 2011). This is precisely why migrant workers, 'the forgotten people of Thailand's flood disaster' (Reuters, 2011), are the most vulnerable groups in the times of the economic and environmental crises. In addition, due to the language barriers and the lack of

access to public information announced by the government, Thailand's external assistance did not reach migrant communities. Even in the midst of this dire situation, migrants were unwilling come forward for assistance for the fear of being arrested due to their long-stand illegal status (IFRC, 2011).

5.2.3. Risks of deportation, arrest and extortion

Hundreds of flooded factories and shops were forced to shut down, and as a result, thousands of migrant workers were put out of work. During the flooding, many have lost their identification documents, money as well as contacts with their employers. Evacuation was never seen as an option even to those legally registered migrant workers. *Under the existing regulation, migrants were not permitted to travel outside of their registered provinces in which they were employed* (Hall, 2012). Hence, both illegal and legitimate migrant workers were remained stranded in their flooded work places and factories, with the fear of being arrested or deported to their home country by Thai authorities.

Nevertheless, as the situation became worse, many have attempted to leave the affected area. But they soon became subject to many forms of exploitation and abuse: Increasing number of news coverage indicated that they were often detained at the border check point by Thai authorities and charged excessive amount of fees for transportation by brokers, or by Burmese militia officials in order to cross back to Myanmar (Roughneen, 2011; Petty, 2011; Reuters, 2011).

5.3. Policy development toward migrant workers

As already mentioned, Thailand's rapid economic development in the 1980s was

met with increasing market demand for low-skilled workers in many sectors, particularly in fishing, constructions, agriculture, domestic work and other labor-intensive industries where labor shortages were acute. Despite the need to fill such gaps, however, Thailand lacked adequate legal framework to enable low-skill migration (Chantavanich, 2007).[13] In the absence of legal measures, combined with ineffective border controls and enforcement, smuggling networks flourished and began to operate by brining a large influx of illegal migrants from Cambodia, Lao PDR and Myanmar into Thailand. In recognition of the growing number of illegal migrants, from the early 1990s the Thai government began to address the need to develop a policy response to better regulate foreign workers in Thailand. Since then, the government has developed "a quasi-regularization" (Hall, 2011: 17) by means of Cabinet resolutions).[14] While widely recognized as ineffective and inconsistent, Thailand has sought to manage an influx of illegal migrants through a number of policy mechanism. Of these, three main policies are identified in the next section.

5.4. Policy responses towards migrant workers

5.4.1. Periodic amnesty policy: Registration programs

The amnesty policy was the most frequently practiced means of control by the Thai government to manage a large influx of illegal migrants (1992; 1993; 1996; 1998; 1999; 2000; 2001; 2002; 2003-04; 2004-05; See Table 1: Thai Cabinet Decisions on Registration of

[13] Thailand's immigration policies were largely guided based on two major acts, namely, Immigration Act 1979 and Foreign Employment Act 1978. However, not only these existing Acts were very restrictive in nature, prohibiting unskilled migrant workers, but also it did not provide clauses for a such new initiative since Thailand had never allowed unskilled foreign workers to be legally employed in sectors such as fishing and construction.

[14] Given the absence of formal legal measures as mentioned above, and also to give more flexibility to existing strict immigration and employment law, the Cabinet resolutions were used as an alternative legal mechanism for regulating workers. In this sense, the resolutions are seen more of as an "ad hoc type of policy formation." Another primary factor behind the development of Cabinet resolutions is a pressure on the government by employers and business groups to solve a labor shortage problem (Chantavanich, 2007: 2).

Mgirant Workers: 1992-2005 from Chantavanich, 2007: 4). The scope of amnesty policy periodically varied across years,[15] but the basic aim was to identify undocumented migrant workers and allow them opportunities to register with their employers to gain a work permit.

5.4.2. Two formal policies for regularization: NV Scheme & "Import" of Workers

While periodic registration processes continued to take place as a primary policy tool to regulate migrant workers, some important developments were made in the policy area during the early 2000s. The most prominent progress in the context of migration policy was seen in 2003 when the government completed the signing of MOU (Memoranda of Understanding) on employment cooperation with Cambodia, Lao PDR and Myanmar.

Moving forward, in 2004 the Thai government, together with the National Security Council (NSC) and the Ministry of Labor (MOL), developed new policy methods for legalizing irregular migrants. Two principal means of regularization are, namely, 1) Nationality Verification (NV) scheme, a procedure which enables irregular migrant workers already in Thailand to acquire a legalized status by means of temporary passports, and alternatively, 2) "importing" of workers directly from neighboring countries with temporary passports in accordance with the MOU signed with respective countries.

5.5. Flaws, gaps and ineffectiveness of existing policies

Despite these seemingly positive policy developments, the majority of low skilled migrants in fact have remained irregular for most of the past twenty years (Hall, 2011). This

[15] While previously there was limited quote on the number of business sectors and provinces where employers could register their migrant workers in the 1990s, the government gradually expanded its scope. For example, re-registrations were permitted from late 1990s and from 2001 migrants in all industries and all jobs were allowed to register.

section analyzes major flaws and gaps in the said policies to understand the root causes behind migrant's current precarious irregular status, one of the critical factors that contributed to increased vulnerabilities during the flooding disaster.

5.5.1 Amnesty policy: Flaws in registrations program

Although the government ran registration openings periodically since the 1990s and throughout the 2000s, the policies have largely failed to meet the need of vulnerable irregular migrants. The most compelling factor lies on the ineffectiveness of amnesty registration process. It involved cumbersome and costly stages in which migrants need to meet various pre-requirements, including fingerprints and photo submission, insurance and medical records as well as the payment of various fees in order to proceed to further stage of obtaining a work permit (IOM, 2009). Whilst most frequently practiced, the amnesty registration programs are significantly flawed, as it is only restricted to those migrants who had registered previously – leaving out a significant proportion of migrant workers who had recently entered Thailand or failed to register themselves in the past, and therefore those were ineligible to re-apply the process (Hall, 2012; Chantavanic et al. 2007).

In theory, the registration programs were designed to provide protection against arrest or extortion by officials and employers while improving their rights to access health and social security services. However, the lack of enforcement in practice to ensure the said benefits generated little incentives for migrants to complete the registration process (Hall, 2011). Migrant's inability to cover all expenses and the lack of clear guidelines also contributed their decisions to drop out of the process (Chantavanic et al. 2007).

After all, the biggest challenge of this policy lies on the fact that this does not

eradicate inherent flaws to the fact that, although migrants obtain work permit at the end of registration stage, the status of registered migrants remain nonetheless '*illegal, pending deportation*' (Hall, 2012). This is because, from an immigration point of view, the registration process does not change their legal/illegal status due to migrant's original illegal entry to Thailand. In this sense, it can be argued that registration program serves merely a tool to enable them to work before they are deported back to their original countries.

5.5.2. Legalization policy: Complex nature of NV processes & Ineffective MOU

Given the challenges raised in the registration programs mentioned above, the Nationality Verification (NV) scheme indeed appears to be a potentially effective solution to the registered migrants (but "illegal") by legalizing their work status. This can be done so by granting those workers already registered in Thailand a work permit on a condition that their nationalities to be verified by their own government. In turn, they would receive a temporary passport or a certificate of identify to remain in Thailand for two years and their work status will change to legal.

And yet, the complex process of NV has also hampered achieving such goals. One of the difficulties exists in the requirement that all migrants who intend to complete the NV must return to their home country to provide their personal data for verifying their nationality. This became a significant obstacle for migrant workers, especially among ethnic minorities from Myanmar, who feared the possibility of being detained once they return to their country, and of their personal data being misused by authorities against their families. Migrants were reluctant to initiate traveling, as it is rather a costly process and involves a

danger of extortion and harassment by brokers and smugglers during the transportation.[16] Furthermore, the lack of information and clarity about the process and the deadline among migrants and employers is thought to have caused much confusion: "*The NV concept and its deadline remained shrouded in mystery, confusion and alleged danger, especially for workers from Myanmar*" (Hall, 2011: 27). After all, the result of the policy came highly unsuccessful: By the deadline for completing NV process, only around 10,000 Myanmar migrants had completed the NV applications, while the remaining 1.3 million migrants could not comply with all pre-requisites (Hall, 2011).

While widely welcomed as an effective policy, the "importing" method of migrant workers through a formal process (MOU) remained equally inefficient. The apparent failure is shown by data: Only a total of 1,513 low skilled Myanmar migrants had entered Thailand through the official MOU process (Hall, 2011).[17] Despite having entered Thailand legally in previous year, these workers however often fall back into irregular status due to difficulties of abiding rules regarding changing employers, or due to the lack of legal awareness and frequent involvement of unregulated brokers (Ibid). All in all, the formal policy has also failed to produce a long-term effect to protect vulnerable migrant workers.

[16] While the Thai and Myanmar government attempted to make negotiations to void Myanmar migrants having to return home to complete the NV process; it was largely unsuccessful due to conflicting interests, further delaying the implementation of this policy. After all, NV policy was implemented for Myanmar migrants at the end of 2009, three years later than the start of this policy for Cambodian and Lao migrants.

[17] This low rate is further supported by the study conducted by IOM in 2013. From its surveys that covered more than 5,000 migrant participants, the study has found that only 0.5 percent of the respondents came to Thailand through the formal recruitment process as stipulated in MOU between Myanmar and Thailand. In contrary, more than 43.4 percent of migrants enter the country through arrangements made by family and friends, and 37.7 percent made their way through brokers (IOM, 2013: 12-13).

Conclusion

Thus far, this dissertation has conducted a daunting task of covering a wide range of important issues concerning migration and natural disasters. The dissertation began with an extensive literature review on the migration-environment nexus, followed by identifying current knowledge gaps and research deficiencies in this field. The dissertation attempted to raise an important point that has been often neglected in migration studies, by highlighting the non-occurrence of migration and so-called “trapped” or “immobile” people’s experience of their immobility in the wake of natural disasters. In the case study of the 2011 Thailand floods, the dissertation has shown that existing government policies have long proven to be ineffective, providing little legal protection to migrant workers. The expected benefits of completing registration and legalization processes were to improve migrant rights, including social security, accident compensation, as well as unrestricted travel within Thailand and between Thailand and their home countries. Nevertheless, the failure of the said policies has further exacerbated already existing vulnerabilities of migrant workers in Thailand, further hindering their ability to move and avoid various forms of exploitations during the time of environmental crisis.

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