Chapter 2
Applying Insights of Theories of Migration to the Study of Environmental Migration Aspirations

The growing interest in environmental migration has led to a wide range of organisations raising awareness on this topic. Politicians and policymakers, for instance, are using arguments that reference environmental migration in their political discourses or increasingly reflect on how to manage this seemingly emerging trend. The rise of this topic on 'the agenda' of policymakers, politicians, non-governmental organisations, and artists, to name a few, immediately calls for some scientific support, framing, or input, which is suddenly in high demand. Also, from a scientific perspective, how people are dealing with ongoing and increasing environmental changes lays bare existing social, ethnic, and gender inequalities. To be specific, when studying environmental changes and disasters, more knowledge can be derived about a society's social and economic structure, relationship dynamics, and the nature of its adaptation capacity. Additionally, more knowledge can be gained about how external communities or countries are related to the studied society (Oliver-Smith 1999).

The study of environmental migration and displacement enhances our understanding of how changes in the natural environment increasingly put the living environment of people under pressure (Dunlap and Marshall 2007; Heinrichs and Gross 2010). These insights are extremely useful for minimising damage and estimating the future vulnerability of people living in these societies as well as for bolstering people's resilience (Oliver-Smith 1999). This becomes even more crucial as global warming renders these environmental changes even more widespread and diverse, complexifying people's and societies' risk perceptions and risk management capabilities as well as their vulnerabilities and resilience. These risks make it even harder to estimate the ways in which ongoing environmental changes are expected to differ in terms of time, intensity, and space.

Remarkably, when looking at existing research disciplines, studies explicitly focusing on environmental migration and displacement recently boomed, with a steep rise in their number over the last two decades (McLeman and Gemenne 2018a). This is not to say that no research on this or similar topics had been conducted previously. A lot of insights could already be drawn from the fields of

L. Van Praag et al., *Migration and Environmental Change in Morocco*,
IMISCOE Research Series, https://doi.org/10.1007/978-3-030-61390-7_2

disaster anthropology (Oliver-Smith 1999), disaster sociology (Fischer 2003; Rodriguez et al. 2007), risk sociology (Douglas 1966; Beck 1992), cultural ecology (Steward 1972), environmental sociology (Dunlap and Marshall 2007; Heinrichs and Gross 2010) and legal studies (e.g., El-Hinnawi 1985; Myers 1995; Havard 2007; Morel and de Moor 2012). These works provide a valuable starting point to understanding the nature of environmental migration and the added value of studying this phenomenon.

In this chapter, we argue that more attention should be given to the fact that many environmental problems should essentially also be considered as social problems, and that environmental migration should also be studied from a more sociological perspective and related to migration theories. Hardly any of the research directed at the study of environmental migration applied a sociological framework (McLeman and Gemenne 2018a) or connected it to dominant theories of migration. While sociologists have been reluctant to expand the discipline to include environmental issues, the idea that environmental problems are social problems has slowly but steadily become more and more accepted in sociology. The latter is an important consideration for the sociological study of environmental migration, on which we aim to build further in this book (see also Van Praag and Timmerman 2019).

By presenting existing migration theories, this chapter demonstrates the difficulties confronting researchers when examining environmental migration and the assumptions underlying many discourses on environmental migration and related studies. Building further on this, some theoretical stepping stones are discussed in order to disentangle the multi-layered nature of environmental migration and displacement, the overlapping nature of migration motivations, and the varying nature of environmental changes (McLeman and Gemenne 2018b; TGOFS 2011). While there could be multiple insights regarding how environmental changes are related to migration, and vice versa, in this book, we specifically focus on studying how migration aspirations are developed when living in an area affected by environmental change – in this case, when living in Morocco and, in the last chapter, by those reflecting retrospectively on their migration aspirations and trajectories after having migrated to Belgium. Focusing on such migration aspirations also matters as these could recur in how migrants themselves perceive and interpret their migration trajectories in terms of environmental changes and to which extent they acknowledge its role within their own migration trajectory as well as in that of their wider social networks. We set out the conceptual framework that forms the basis of this book's empirical analyses, departing from existing migration theories and linking them to research on environmental migration. Hence, this provides the main input to solve the actual research question. We delve in-depth into the examination of migration aspirations, then study how these could have resulted in actual migration trajectories, regardless of the fact that these migration aspirations were not necessarily inspired by, or attributable to, environmental change.

Finally, we argue that the chapters contained in this book do not provide a comprehensive overview of all possible trends in environmental migration and displacement, but rather show the importance of using case studies to fully understand the interrelated nature of factors contributing to migration aspirations and

trajectories within one particular context. As a result, this Moroccan-Belgian case study enables us to gain more substantial information on people's vulnerabilities, situated intersectionality, and on social and other inequalities that are put under pressure by environmental changes (Yuval-Davis 2015).

2.1 Theories on Migration Applied to Environmental Migration

Building further on the overview given by Castles et al. (2014), in this section we aim to outline some key migration theories that frame and give more insights into how environmental changes drive people (to aspire) to migrate. Three main groups of migration theories can be distinguished. A first group consists of *functionalist migration theories*, which see migration as a way to create more equality within and between countries and that serves the interests of most people. The second group of theories includes more *historical-structural theories*, which place migration within a broader context of social, political, economic, and cultural structures, seeing migration as a way to maintain and reinforce existing inequalities between and within countries, as well as to have easy access to pools of cheap labour. A third set of theories reacts against the previous two strands of research, including meso-level and micro-level factors more prominently, namely: *new economics of labour migration (NELM) theory, migrant network theory, transnationalism* and *migration systems theories.* We briefly describe the main rationale of these theories and reflect on how these ideas are also presented in the literature on environmental migration or could be useful for the analyses in this book.

The most popular *functionalist migration theories* consist of 'push' and 'pull' theories and neoclassical and human capital theories. Migration theories often depart from *'push' and 'pull' models* in areas of origin and destination. Push factors, such as population growth, and pull factors, such as demand for labour, tend to interplay and cause people to (aspire to) migrate from one region to the other. These push-and-pull theories often lie implicitly at the basis of a lot of research on environmental migration as environmental degradation is seen as a push factor for migration. Moreover, these imaginaries are very influential in the framing of environmental migration, both in research and media discourses, as environmental factors are often very literally interpreted or portrayed as 'push factors'. This is especially the case for sudden environmental changes, such as floods and storms, which negatively affect people's living environment and means of survival, or for rises in the sea level that physically hampers or even bars people from continuing to live in their natural living environment. This can be exemplified through the symbolic case of Small Island States (SIS) in the Pacific Ocean whose inhabitants will be forced to move due to rising sea levels (El-Hinnawi 1985; Farbotko and Lazrus 2012) or disasters like Hurricane Katrina (Mark 2017).

This distinction between push and pull factors is certainly conceptually relevant and also underlies the IOM's definition of environmental migration (cf. below) (Warner 2010). Nevertheless, push-and-pull theories are merely descriptive and may not sufficiently add to a better understanding of how such factors interact or their roles (Hunter et al. 2015). This already brings to the fore one of the intrinsic difficulties of studying environmental migration (cf. below), namely: interrogating how environmental change interacts with other drivers of migration and explains return migration. Environmentalists use these functionalist theories to emphasize the fact that climate/environmental change will cause many people to migrate in order to alert people on the urgency of climate change. By contrast, migration scholars do not necessarily see this as a one-on-one relationship, and even argue that migration could be seen as a way to respond to these changes.

Another group of functionalist migration theories, namely *neoclassical and human capital theories,* understand migration as a crucial part of the development process in which surplus labour in rural areas can serve as a potential labour force in urban industrial economies. Applied to environmental migration, and particularly to individuals living in gradually-changing natural environments, environmental changes mainly impact drivers of migration by creating a surplus of labour in rural areas, urging rural labourers to migrate to nearby cities offering more job opportunities. This idea served as the basis for selecting the Moroccan case studies in this book (i.e., Tangier, a city that attracts a lot of migrants from rural areas, and Tinghir, a city characterised by emigration of mainly young people, first to Europe and nowadays to larger urban areas). Another example is the study of Massey et al. (2010) in Nepal, in which human capital is found to matter, amongst other factors, in explaining migration outcomes in response to environmental change.

Overall, these functionalist theories depart from the idea that humans are rational actors who make rational decisions regarding migration. As such, migration is also seen as a process that optimizes the allocation of production factors – labour in particular. Hence, with regard to environmental migration, this requires that all migrants are fully informed about any environmental change in their immediate living environment and aware of all possible adaptation strategies. The latter may be problematic given the fact that humans are not rational actors; nonetheless, it appears necessary to consider, study, and introduce in the study of environmental migration (cf. Chap. 5). Additionally, it stresses the voluntary nature of migration, which is not necessarily adequate when talking about environmental displacement (e.g. disasters). However, at the same time, adaptation strategies should be considered together with other social, economic, political, and cultural processes that shape migration and cause people to migrate.

Historical-structural theories encompass the critiques on the functionalist theories on migration as they depart from the idea that individuals do not have a free choice to migrate since they are structured and constrained by larger structural forces. For instance, the reorganisation and mechanisation of agriculture could have led people to search for alternative ways to survive and, as a consequence, driven them towards urban areas. For the study of environmental migration, the interplay between environmental changes, available adaptation strategies as well as

the broader structural context could play a role in the better understanding of the development of migration aspirations and subsequent migration trajectories. While most of these historical-structural theories delve deeper into structural inequalities between countries, more attention should also be paid to inequalities in resorting to adaptation strategies in the face of environmental changes, in accessing the resources that are necessary to secure alternative incomes, and so on. Within this stream of historical-structural theories, two main theories are developed: *globalisation theory* and *segmented labour market theory*.

G*lobalisation theory* starts from the idea that migration should be seen as an element linking societies and making them increasingly interconnected. This globalisation process mainly departs from economic processes (e.g. transformations in agriculture) and involves technological transformations and associated political processes. According to these theorists, nation-states play crucial roles in understanding migration as they remain the primary locus for the development of policies on cross-border movements and non-migration policies (e.g. welfare state, citizenship, and so on) that indirectly impact migration. An example of a study on environmental migration that departs from this approach is the work by Marchiori et al. (2017) examining how environmentally-induced income variability could become a driver of human migration in 39 Sub-Saharan African countries.

The second theory in this research strand is the *segmented/dual labour market theory*, which argues that increased labour market segmentation has taken place. The primary labour market consists of workers selected by their level of human capital. The secondary labour market consists of workers that are disadvantaged in terms of educational level, training, but also in gender, race/ethnicity, and legal status. The segmented labour market theory helps to gain insight into how migration keeps occurring, despite high employment rates, and can even benefit employers. This could also partly help to understand why everyone does not develop migration aspirations when their immediate living environment is faced with the adverse impacts of environmental change and how this may be shaped by gender, socio-economic status, race/ethnicity, and so on.

In contrast to the functionalist theories on migration, historical-structural approaches have left little space for individual decision-making and could be interpreted as very deterministic. In particular, when talking about environmental migration in a gradually-degrading natural environment and where a large share of the population works in the agricultural sector, the deterministic interpretation of an historical-structural approach can hinder the understanding of why farmers aspire to migrate. Previously, these theories had too frequently assumed that people working in agriculture in smaller communities are to a large extent isolated and stable, which renders them immobile (De Haan 1999; Castles et al. 2014). Although it is important to avoid such simplifications, it is important for the sake of this study to not only focus on the development of migration aspirations, but also to understand why people may not aspire to migrate and how this links to the occupations they have or wish they had. To respond to these two main strands of theories of migration and to incorporate the critiques on these main strands led to the development of the following four theories: *new economics of labour migration, migrant network*

theory, transnationalism and diaspora theories, and *migration systems theories.* This line of research argues that migration can be seen as an adaptation strategy to deal with the adverse impacts of environmental change (cf. the rationale behind the MIGRADAPT project; Kniveton et al. 2008; Gemenne 2010; Gemenne and Blocher 2017; Adger et al. 2018; Adoho and Wodon 2014; Hunter et al. 2015). The concern of migration scholars, according to whom studies on environmental migration should consider the agency of households and how environmental change impacts the livelihoods of people and living communities, could be addressed by looking at incorporating insights from these 'new' strands of research. We now discuss the impact of each one of these theories on the field of study of environmental migration.

First, the *new economics of labour migration* (Stark and Bloom 1985; Stark 2005; Taylor 1999) perceives migration as a way to mitigate the risks faced by households and find resources that can be used for future investment in the household's economic activities. This could be very relevant when facing uncertainties related to environmental change and perceived future hazards related to environmental changes. Hence, the perceived risks in one's natural living environment are a precondition to understanding people's actions and migratory decisions (cf. Chaps. 5 and 6). For example, Hunter et al. (2015) argue that migration is often a household strategy to diversify risks that interacts with household composition, individual characteristics, social networks, and historical, political, and economic contexts. It is in this light that migration is seen as one of many long-term adaptation strategies for coping with environmental change. Consequently, many scholars working on climate change risk aversion and adaptation strategies have applied this approach and studied migration as one way amongst others to adapt to climate change – for instance, (temporary) migration as an adaptation strategy for farming households in Ghana (Antwi-Agyei et al. 2014) and Senegal (Mertz et al. 2009).

Second, *migrant network theory* further examines how networks between migrants and their families/households back home are established and maintained, thus facilitating further migration. This theory posits that factors such as colonisation, labour recruitment, shared culture, or geographical proximity initiate migration flows. However, once these social networks between migrants have reached a significant critical number, new migration flows are developed, leading to 'chain migration' or 'network migration' (Massey et al. 1993). Hence, when applied to environmental migration, it is important to distinguish initial factors, such as environmental change that may have started migration flows and determined popular destination areas; however, other factors may have led to the continuation of these migration flows. Or the other way around could work as well: although initially people may have migrated for other reasons, others could follow when facing disruptive environmental changes in their immediate environment.

Third, *transnational and diaspora theories* have argued that globalisation has led to the development of global networks and the increased ability to maintain networks across the globe, regardless of the distance (Basch et al. 1994; Cohen 1997; Glick-Schiller 1999; Levitt and Glick-Schiller 2004). In these theories, identity formation based on the migrant's experience and membership in transnational or diaspora

communities is central. However, applied to the field of environmental migration studies, it is considered that these communities can facilitate the development of adaptation strategies when dealing with environmental change, especially when grouping remittances together and setting up non-governmental organisations that reinforce the ties with 'home' (cf. Chaps. 6 and 7; Warner 2010; Miller et al. 2006).

Finally, *migration systems theory* posits that migration is related to other flows of material goods, ideas, and money (Mabogunje 1970; Levitt 1998). It is in this line of research that the development of 'cultures of migration' (Timmerman et al. 2014b), which is very much applicable to the Moroccan context (De Haas and El Ghanjou 2000; De Haas 2007), should be situated. Cultures of migration refer to existing feedback mechanisms between international migration patterns which eventually impact the development of migration aspirations in the region of origin (Timmerman et al. 2014b) (cf. Chap. 7). Another study that departs implicitly from this theory is the work of Nguyen and Wodon (2014) examining the impacts of weather shocks and households' abilities to recover in Morocco. In the case of environmental migration, this could relate to the sharing of ideas concerning environmental/climate change and adaptation strategies (cf. Chap. 5) and resources to develop and implement such adaptation strategies (cf. Chap. 6). Moreover, as these flows can change lives irreversibly, they can therefore impact the need or aspiration to migrate. Overall, this last set of theories gives more attention to the agency of migrants and can help understand how people develop and frame their migration aspirations within the Moroccan context.

2.2 The Study of Environmental Migration

Drawing from the Foresight report (TGOFS 2011), Castles et al. (2014) generate a number of key points that must be kept in mind when studying environmental migration. First, migration will continue, with or without environmental changes, as it is driven by social, economic, political, and cultural factors. Second, the impact of environmental change could both increase and decrease migration across the world. Third, when trying to limit migration due to environmental change, it is important to bear in mind that this could lead to 'impoverishment, displacement and irregular migration'. Finally, regardless of whether one could disentangle the combined effects of all drivers of migration – i.e. social, political, economic, environmental, demographic – the impact of environmental change on migration is undeniable (Castles et al. 2014: 211). However, when connecting this strand of research with previous insights in theories of migration, the following key finding emanating from migration studies must be kept in mind:

> 'the volume and complexity of migration often *increases* with development. This is because improved access to education and information, social capital and financial resources increases people's aspirations and capabilities to migrate, while improved transport and communication also facilitate movement' (Castles et al. 2014: 25).

Hence, when environmental changes impacts the poorest or most vulnerable groups in society, it is important to study how this affects their migration aspirations as well as their actual migration trajectories. As the research on this topic is relatively recent, in academic terms, many studies have first focused on mapping out existing migration patterns and trajectories related to environmental changes. These studies already indicated that the type of migration trajectories that environmental change usually brings about have a specific pattern. Given that the impact of environmental changes is the strongest for the most vulnerable individuals and groups in society, this can also affect their migration trajectories. As a result, many people are more likely to travel smaller distances, travel to the nearest urban centres for better work facilities or existing (family) networks, or to travel a greater distance in different stages (McLeman et al. 2016). During such 'fragmented journeys' (Collyer 2010) people tend to adapt to their new living conditions and gradually develop new migration aspirations, frames of reference, and migration motives. This makes it more difficult to ascertain what the original migration reason was, as well as the region of origin. Furthermore, a large proportion of cross-border 'environmental migrants' are previously internal migrants (McLeman and Gemenne 2018a). This migration trend is likely to continue in the future, given the vulnerable position that many potential climate migrants occupy in their society.

Additionally, as mentioned earlier, we should also take into account that some particularly vulnerable groups are not able to migrate since this requires a certain amount of resources (Zickgraf 2018). Finally, there are many differences in the duration of their residence period (temporary or permanent) outside of their place of origin (McLeman and Gemenne 2018a). Again, social differences arising across migration trajectories and dynamics reflect and reinforce existing inequalities in society (McLeman et al. 2016). Since environmental migrants are more likely to follow short migration paths and since we must also acknowledge the existence of large groups of immobile populations affected by environmental change, transnational migration as well as the categorization of migrant groups are also impacted. While there is a lot of internal or regional migration, transnational migration is only possible when combined with other migration reasons or migration schemes. For example, as demonstrated in Chap. 3, since the first migrations to Belgium after the second world war, the regions of origin of many Moroccan migrants have often faced water scarcity and diminishing economic opportunities. Due to the organization of large-scale labour migration to Belgium and other European countries, many people were able to migrate, to better support their livelihood and that of their families (see, for example, De Haas and El Ghanjou 2000). Similarly, some researchers argue that the arrival of Syrian war refugees is the result of a combination of political unrest and a persistent drought, resulting in famine and war (Kelley et al. 2015; Piguet et al. 2011).

Overall, it can be concluded that the different characteristics of environmental migration, namely the nature of the migration trajectories (temporary, short distance, internal migration), the affected (immobile and vulnerable) groups and the interplay between different migration drivers, render migration phenomena more complex (Gemenne 2010). This is in line with previous findings in migration studies that have

long shown that, in order to understand drivers of migration, the distinction between internal and international migration, as well as between 'forced' and 'voluntary' migrants is conceptually not always relevant. Rather – and this is crucial for the understanding of environmental migration as well – it is important to recognise that the drivers of migration are manifold, interconnected, and fall within a 'continuum'. Nevertheless, less is known on which combined set of factors actually causes people to migrate and in particular the role played by natural environmental changes herein, and how this influences the development of migration aspirations. Instead, many scholars and policymakers acknowledge that environmental changes put other migration reasons under pressure (TGOFS 2011; IPCC 2014), acting as a 'threat multiplier', yet often fail to study these in-depth or consider how this is intertwined with social, ethnic, and gender inequalities in a specific region. This is especially important in areas such as Morocco where gradual environmental degradation is occurring, as the impacts of environmental changes are often intertwined with other socio-economic factors causing these environmental changes (e.g. human activity) and are often spread over time. Consequently, the underlying or interfering reasons for migration are hard to distinguish during one's lifetime and in most cases are entangled with other migration reasons. Furthermore, previous theories of migration and studies on environmental migration often do not consider or sufficiently explain return migration. This is however crucial as there are patterns of return migration that occur after a sudden disaster in a specific area, for instance Hurricane Katrina (McLeman et al. 2016).

2.3 The Focus on Migration Aspirations Due to Environmental Change

In this book, we argue that it is important to set out exactly why the study of migration aspirations is so crucial for a better understanding of environmental migration. There are multiple reasons for focusing on migration aspirations and which build further on theories of migration (cf. previous section, Castles et al. 2014). First, focusing on migration aspirations, instead of migration trajectories, enables us to better study the gradual development of migration decision-making processes, to appraise the role that environmental changes play herein, as well as to understand the (structural) hindrances people experience to actually materialize their aspirations or even start envisioning migration.

Second, when questioning people's migration aspirations, we also receive more insights into the role attributed to environmental changes within this decision-making process as well as the extent to which people perceive and categorize themselves as 'environmental' migrants. This is in line with a third point, which could be the study of the overall discourses, opportunities, and structures in which migration aspirations are (not) perceived to be linked to environmental changes. For example, previous law cases have demonstrated the (lack of) migration discourses of

people living on islands in the Pacific Ocean, often portrayed as 'the first climate change refugees'. This may contrast with people living in other regions, in which the linkages between environmental changes and migration is far less mediatized, politicised, and prevalent in popular discourses (cf. McNamara and Gibson 2009; Farbotko and Lazrus 2012; Ayeb-Karlsson et al. 2018). A fourth reason for which the study of migration aspirations could be useful is the fact that explicit attention could be given to populations that are either 'trapped' (i.e. people who wish to migrate but are unable to do so) or 'immobile' (i.e. people who do not aspire to migrate, despite clear environmental degradation in their immediate living environment).

The study of migration aspirations broadens the environmental migration research domain by considering the reasoning behind the development of migration aspirations and the extent to which people are able to put such aspirations into practice. By linking these migration aspirations to the study of how people retrospectively evaluate and perceive their own migration trajectories, the prevailing discourses on environmental migration could be nuanced and studied from a multilevel approach (See the Belgian case study in Chap. 8). In particular, when discussing environmental migration it is often assumed that there is a straightforward and linear relationship between environmental changes and migration – a relationship of which people's full awareness is clearly expected. However, both awareness of environmental changes and risks (cf. Beck 1992) and consciousness about one's migration aspirations and factors impacting these decision-making processes (Carling and Schewel 2018) are far from being a given. More sociological insights into these matters could be of added value since this would enable us to study how people perceive and respond to their changing living environment, and how people and their households adapt their aspirations to the perceived ability to deal with changes to their environment (Dunlap and Marshall 2007; Heinrichs and Gross 2010; Hunter et al. 2015). Furthermore, more attention should be given to contextual features, as they determine the structures in which people's actions should be considered. The inclusion of the wider context, both at the macro and meso levels and how it impacts micro-level factors, is deemed necessary. This can indeed help us to understand the development of migration aspirations, the final outcomes of the migration-related decision-making processes, and to include the available alternative adaptation strategies people use to deal with environmental changes.

As the research literature on migration aspirations is already abundant, we should note that the development of migration aspirations in the context of environmental change or in this study domain is largely non-existent or hardly made explicit. This is for instance the case for the very influential aspirations/ability model of Carling (2002a, b, 2014; Carling and Schewel 2018) in which a distinction is made between migration aspirations and the abilities to migrate. This is particularly interesting in the context of this book, as both mobility and immobility can be placed in the same model and thus not studied separately (cf. McLeman et al. 2016). Therefore, with regard to environmental migration and displacement, the aspirations/ability model could be especially useful as the distinction between aspirations and abilities facilitates the inclusion of immobile groups – at least conceptually – in research on

environmental migration and displacement (cf. Carling and Schewel 2018). This could also include people who are (internally) displaced due to environmental changes. Consequently, this helps to understand actual migration trajectories and specific environmental migration patterns, including return migration, migration trajectories, and group-based actions and decisions (cf. McLeman and Gemenne 2018b; Bose and Lunstrum 2014). Thus, Carling's aspirations/ability model can already provide a tool for the understanding of the not-always-so-straightforward relationship between environmental migration aspirations and trajectories.

Given the very generic nature of this model, more concrete elements are necessary to understand how migration aspirations are shaped. In doing so, more multilevel contextual factors need to be considered. In doing so, we start from the idea that (the nature of) the environmental changes within a particular socio-economic and political context impacts the decision-making of potential migrants (cf. Piguet 2010; TGOFS 2011). As also later suggested by Carling (2014; Carling and Schewel 2018), the importance of the household level and of collective and social networks in the contextualization of migration aspirations cannot be underestimated. These factors can be found at the micro-level (cf. earlier), the meso-level (including people's surrounding networks and cultures) as well as at the macro-level, for instance, referring to media and policy discourses (Timmerman et al. 2010, 2014a, b, 2018; Van Mol et al. 2018). In this book, we argue that neither migration aspirations, nor the actual realisation/hindrance thereof, are developed in a social vacuum. Hence, one can distinguish between factors situated at three levels – macro, meso, and micro – and which matter for the further development of migration aspirations. Building further on Carling's aspirations/ability model (2002a; Carling and Schewel 2018), this interplay of factors situated at distinct levels of analysis can be decisive for the perceived need and wish to change environment or location of residence (and thus aspirations), as well as having the resources, networks, and legal framework enabling one to do so (which refers to the ability to migrate or to employ alternative adaptation strategies). This interplay is important in that it could help provide more insight into the nature of the migration journeys that people are willing or forced to undertake (temporary, fragmented, local or transnational or both). We now turn to briefly discussing each level of analysis.

At the *macro level*, two main components should be distinguished: a 'natural' and a 'social'. When looking at the *natural environment*, a broad categorisation of the types of environmental changes (abrupt vs gradual; type of effects) helps to understand the consequences one must deal with within one's living environment and the ability to stay (Piguet 2010; TGOFS 2011). However, this distinction is not implacable since abrupt changes may also occur in places that are gradually degrading, for instance. Regarding the *social environment*, the combined social, political, and economic context should be considered to capture a local community's capacity to deal with the effects of environmental changes. Despite the importance of structural and changing factors in the context in which people are living, this has been hardly considered in previous research that mainly focused on extreme, urgent, and pressing short-term matters (e.g., Bose and Lunstrum 2014). Given the complex nature of these interrelated factors, it is sometimes hard to come up with a broad,

all-encompassing theory that would apply to all regions. Therefore, in the case studies of non-migrant populations in Morocco and Moroccan migrants in Belgium, we will not focus solely on these factors, but also appraise the ways in which they impact micro- and meso-level factors.

The incorporation of the larger context in analyses is crucial in this case as it adds to a better understanding of how less extreme environmental drivers of migration, such as increasing drought, affect society as a whole and impact the existing living conditions and income resources, such as livestock and agricultural activities, of people living in a particular region. Following Gemenne and Blocher (2016), this can help understand how migration can be seen as one of the possible adaptation strategies people employ to deal with environmental changes, and see how all these adaptation strategies relate to each other or are used differently according to one's individual and household characteristics (TGOFS 2011). In other words, including a combined set of macro-level factors into one's research design is important as it further shapes the contexts that affect meso- and micro-level factors.

At the *meso level*, both prevailing local cultures and (shared) perceptions on strategies to deal with environmental changes and the perceptions of such changes (Ransan-Cooper 2016; Wodon and Liverani 2014; Dunlap and Marshall 2007; Heinrichs and Gross 2010), as well as the local social networks and migration networks (cf. the EUMAGINE model: Timmerman et al. 2010, 2014a, b; Van Mol et al. 2018), play a large role in the development of migration aspirations and in how decision-making processes are shaped and linked to environmental change. First, the study of the perceived and prevailing environmental change discourses is important. Discourses and perceptions on the nature and the causes of these environmental changes are not automatically linked to environmental change (Bates 2002; TGOFS 2011) and are interpreted in multiple ways, depending on the prevalent cultural, religious, or scientific discourses (e.g., Hope and Jones 2014; Sachdeva 2016; Zietlow et al. 2016). These discourses matter even more in areas – such as many Moroccan regions – where the pace of the environmental/climate changes is rather slow, leading to a gradually-degrading natural living environment in which patterns of weather outcomes over time and changes in intensity are not clearly noticeable for everyone (Wodon et al. 2014; Kniveton et al. 2008). Furthermore, the interplay of macro-level factors may render even less noticeable the impact of environmental changes on people's immediate living environment and situation (Wodon et al. 2014).

Second, apart from these discourses on environmental change, the available resources and local and transnational (migrant) networks are also decisive in shaping both aspirations and abilities to migrate. These meso-level factors refer to the availability of transnational networks, traffickers, cultures of migration, the community's capacity to deal with effects of environmental change, and remittances (see Carling 2002a; TGOFS 2011; Warner et al. 2012; Timmerman et al. 2014a, b; Simon 2018). Moreover, these local and transnational networks give rise to social imaginaries and expectancies of remittances and investment strategies that could turn individual aspirations into collective ones (Carling and Hoelscher 2013). These networks are important to consider when seeking to understand how environmental

changes have differentiated impacts on people living in the same affected area (TGOFS 2011; Warner et al. 2012).

At the *micro level*, people's vulnerabilities, adaptation strategies, and decision-making to deal with environmental changes depend on the wider range of opportunities they can access in their living environment, often situated at the macro and meso levels (cf. supra). This affects both their migration aspirations and abilities, which are often unequally spread across the population (Creighton 2013; Bose and Lunstrum 2014). There seems to be a vicious circle in this regard. Environmental changes can make living conditions more fragile, which in turn increases the risk of living in poverty and leads to the immobility of the groups most vulnerable to the effects of environmental change (Bates 2002; TGOFS 2011; Zickgraf 2018; Ayeb-Karlsson et al. 2018). The most privileged groups in society may have sufficient resources to cope with problems related to environmental change and be able to migrate. This contrasts with the situation of the most vulnerable groups, in terms of economic, political, and social resources who are most likely to aspire to migrate. Hence, all possible adaptation strategies that can be mobilized in order to deal with such environmental changes, as well as factors that increase people's resilience, should be considered, together with the ways these changes lead to the development of migration aspirations and their realisation (Piguet 2010). Unequal aspirations and abilities to migrate across groups living in the same area provides the starting point for understanding the trajectories of migrants and the destination areas.

In this book, a multilevel approach is applied to assess how migration aspirations (or lack thereof) are shaped, reshaped, and realised in the light of the abilities people have, while considering the foreseen and unforeseen, abrupt and gradual environmental changes, social and migrant networks, and prevailing climate change and migration discourses/cultures in Tangier and Tinghir, and including insights from Moroccan migrants living in Belgium.

2.4 Conclusions

This chapter sought to demonstrate how existing imaginaries of environmental migration, that also characterize the first studies in this field, fail to consider insights of prevailing theories of migration. Environmentalists, policymakers, and politicians – past and present – have strived to increase awareness of the impacts of environmental changes on people's lives in order to spur immediate action and mitigate climate change. By doing this, they have placed simplistic models at the fore, depicting environmental change, and especially degradation, as a push factor for migration, thus predicting millions of people on the move in the future. Portraying environmental change in apocalyptic terms and using images of 'climate refugees' in campaigns aimed at reducing climate change has put aside a long tradition of research in migration. Incorporating elements from existing theories of migration into the field of environmental migration and considering environmental changes as one of the many drivers of migration, this book will use some key points

from existing theories of migration as a conceptual framework to study the development of migration aspirations when facing the detrimental effects of environmental change in one's natural living environment.

Firstly, migration aspirations should be understood within the context of economic, social, cultural, and political structures. Building further on neoclassical and human capital theories, two main sites of research in Morocco – Tinghir and Tangier – are included, in addition to migrants originating from distinct regions in Morocco currently living in Belgium in order to understand how surplus labour and changing needs in the labour market (including industries in urban environments, agricultural developments in rural areas as well as labour market policies abroad in countries) interact with environmental change. Additionally, this should be understood in the context of increased interconnectedness between societies and global transformations, as noted by globalization theorists. Furthermore, as pointed out by the segmented labour market theory, immobile groups, especially those with specific occupations like those working in agriculture, need to be taken into account as well (cf. Carling's aspirations/ability model).

While these insights and focus areas of previously developed theories of migration frame the main research design and rationale of this book, theories that focus more on micro- and meso-level factors will also be considered in the analyses presented. Combining insights from new economics of labour migration, migrant network theory, transnationalism and diaspora theories, and migration systems theories, individuals are considered as agents who make migration decisions and develop aspirations in light of their existing opportunities, knowledge, and networks, the risks they perceive with regards to environmental change, and individual factors such as age, gender, and occupation. This way, we wish to better understand how the complexities introduced by environmental change impact both migration aspirations and trajectories thus contributing to the creation, persistence, or widening of ethnic, gender, and social inequalities (McLeman et al. 2016; Gioli and Milan 2018). This book therefore highlights how aspirations, abilities, and trajectories relate to each other within the framework of environmental change.

References

Adger, W. N., de Campos, R. S., & Mortreux, C. (2018). Mobility, displacement and migration, and their interactions with vulnerability and adaptation to environmental risks. In R. McLeman & F. Gemenne (Eds.), *Routledge handbook of environmental displacement and migration* (pp. 29–41). London/New York: Routledge.

Adoho, F., & Wodon, Q. (2014). How do households cope with and adapt to climate change? In Q. Wodon, A. Liverani, G. Joseph, & N. Bougnoux (Eds.), *Climate change and migration. Evidence from the Middle East and North Africa* (pp. 123–114). Washington, DC: The World Bank.

Antwi-Agyei, P., Stringer, L. C., & Dougill, A. J. (2014). Livelihood adaptations to climate variability: Insights from farming households in Ghana. *Regional Environmental Change, 14* (4), 1615–1626.

Ayeb-Karlsson, S., Smith, C. D., & Kniveton, D. (2018). A discursive review of the textual use of 'Trapped' in environmental migration studies: The conceptual birth and troubled teenage years of trapped populations. *Ambio, 47*, 557–573.

Basch, L., Glick-Schiller, N., & Blanc, C. S. (1994). *Nations unbound: Transnational projects, post-colonial predicaments and Deterritorialized nation-states*. New York: Gordon and Breach.

Bates, D. C. (2002). Environmental refugees? Classifying human migrations caused by environmental change. *Population and Environment, 23*(5), 465–477. www.jstor.org/stable/27503806.

Beck, U. (1992). *Risk society. Towards a new modernity*. London: Sage.

Bose, P., & Lunstrum, E. (2014). Introduction environmentally induced displacement and forced migration. *Refuge: Canada's Journal on Refugees, 29*(2), 5–10.

Carling, J. (2002a). *Cape Verde: Towards the end of emigration?* Washington, DC: Migration Policy Institute.

Carling, J. (2002b). Migration in the age of involuntary immobility. *Journal of Ethnic and Migration Studies, 28*(1), 5–42.

Carling, J. (2014). *The role of aspirations in migration*. Paper presented at Determinants of International Migration, International Migration Institute, University of Oxford, Oxford, 23–25 September.

Carling, J., & Hoelscher, K. (2013). The capacity and desire to remit: Comparing local and transnational influences. *Journal of Ethnic and Migration Studies, 39*(6), 939–958. https://doi.org/10.1080/1369183X.2013.765657.

Carling, J., & Schewel, K. (2018). Revisiting aspiration and ability in international migration. *Journal of Ethnic and Migration Studies, 44*(6), 945–963. https://doi.org/10.1080/1369183X.2017.1384146.

Castles, S., De Haas, H., & Miller, M. J. (2014). *The age of migration. International population movements in the modern world* (5th ed.). Hampshire: Palgrave Macmillan.

Cohen, R. (1997). *Global Diasporas: An introduction*. London: UCL Press.

Collyer, M. (2010). Stranded migrants and the fragmented journey. *Journal of Refugee Studies, 23*(3), 273–293. https://doi.org/10.1093/jrs/feq026.

Creighton, M. J. (2013). The role of aspirations in domestic and international migration. *The Social Science Journal, 50*, 79–88. https://doi.org/10.1016/j.soscij.2012.07.006.

De Haan, A. (1999). Livelihoods and poverty: The role of migration. *Journal of Development Studies, 36*(2), 1–47.

De Haas, H. (2007). Morocco's migration experience: A transitional perspective. *International Migration, 45*(4), 39–70. https://doi.org/10.1111/j.1468-2435.2007.00419.x.

De Haas, H., & El Ghanjou, H. (2000). *General introduction to the Todgha Valley population, migration, agricultural development* (IMAROM Working Paper Series no. 5). Amsterdam: University of Amsterdam.

Douglas, M. (1966). *Purity and danger. An analysis of the concepts of pollution and taboo*. London: Routledge Kegan Paul.

Dunlap, R. E., & Marshall, B. K. (2007). Environmental sociology. In C. D. Bryant & D. L. Peck (Eds.), *21st century sociology: A reference handbook* (pp. 329–340). Thousand Oaks: Sage.

El-Hinnawi, E. (1985). *Environmental refugees*. Nairobi: United Nations Environmental Programme.

Farbotko, C., & Lazrus, H. (2012). The first climate refugees? Contesting global narratives of climate change in Tuvalu. *Global Environmental Change, 22*(2), 382–390.

Fischer, H. W. (2003). The sociology of disaster: Definitions, research questions, and measurements. Continuation of the discussion in a Post-September 11 environment. *International Journal of Mass Emergencies and Disasters, 21*(1), 91–107.

Gemenne, F. (2010). Migration, a possible adaptation strategy? *Institut du développement durable et des relations internationales, 3*, 1–4.

Gemenne, F., & Blocher, J. (2016). How can migration support adaptation? Different options to test the migration-adaptation nexus. *Migration, Environment and Climate Change. Working paper IOM*. https://doi.org/10.13140/RG.2.1.2010.6008.

Gemenne, F., & Blocher, J. (2017). How can migration serve adaptation to climate change? Challenges to fleshing out a policy ideal. *The Geographical Journal, 183*(4), 336–347.

Gioli, G., & Milan, A. (2018). Gender, migration and (global) environmental change. In R. McLeman & F. Gemenne (Eds.), *Routledge handbook of environmental displacement and migration*. London/New York: Routledge.

Glick-Schiller, N. (1999). Citizens in transnational nation-states: The Asian experience. In K. Olds, P. Dicken, P. F. Kelly, L. Kong, & H. W.-c. Yeung (Eds.), *Globalisation and the Asia-Pacific: Contested territories* (pp. 202–218). London: Routledge.

Havard, B. (2007). Seeking protection: Recognition of environmentally displaced persons under international human rights law. *Villanova Environmental Law Journal, 18*(1), 64–82.

Heinrichs, H., & Gross, M. (2010). Introduction: New trends and interdisciplinary challenges in environmental sociology. In M. Gross & H. Heinrichs (Eds.), *Environmental Sociology* (pp. 1–17). Dordrecht: Springer.

Hope, A. L. B., & Jones, C. R. (2014). The impact of religious faith on attitudes to environmental issues and Carbon Capture and Storage (CCS) technologies: A mixed methods study. *Technology in Society, 38*, 48–59. https://doi.org/10.1016/j.techsoc.2014.02.003.

Hunter, L. M., Luna, J. K., & Norton, R. M. (2015). Environmental dimensions of migration. *Annual Review of Sociology, 41*, 377–397.

IPCC. (2014). *Climate Change 2014: Synthesis report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. Geneva: IPCC.

Kelley, C. P., Mohtadi, S., Cane, M. A., Seager, R., & Kushnir, Y. (2015). Climate change in the Fertile Crescent and implications of the recent Syrian drought. *Proceedings of the National Academy of Sciences, 112*, 3241–3246. https://doi.org/10.1073/pnas.1421533112.

Kniveton, D., Schmidt-Verkerk, K., Smith, C., & Black, R. (2008). *Climate change and migration: Improving methodologies to estimate flows* (p. 33). Geneva: International Organisation for Migration. Migration Research Series.

Levitt, P. (1998). Social remittances: Migration driven local-level forms of cultural diffusion. *International Migration Review, 32*(4), 926–948.

Levitt, P., & Glick-Schiller, N. (2004). Conceptualising simultaneity: A transnational social field perspective on society. *International Migration Review, 38*(3), 1002–10039.

Mabogunje, A. L. (1970). Systems approach to a theory of rural-urban migration. *Geographical Analysis, 2*(1), 1–18.

Marchiori, L., Maystadt, J.-F., & Schumacher, I. (2017). Is environmentally induced income variability a driver of human migration? *Migration and Development, 6*(1), 33–59. https://doi.org/10.1080/21632324.2015.1020106.

Mark, P. (2017). Environmental disruption: Push/pull factors, human migration, and homeland security. *Journal of Political Sciences & Public Affairs, 5*, 264.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population and Development Review, 19*(3), 431–466.

Massey, D. S., Axinn, W. G., & Ghimire, D. J. (2010). Environmental change and out-migration: Evidence from Nepal. *Population and Environment, 32*(2–3), 109–136.

McLeman, R., & Gemenne, F. (2018a). Environmental migration research. Evolution and current state of the science. In R. McLeman & F. Gemenne (Eds.), *Routledge handbook of environmental displacement and migration* (pp. 3–16). London/New York: Routledge.

McLeman, R., & Gemenne, F. (Eds.). (2018b). *Routledge handbook of environmental displacement and migration*. London/New York: Routledge.

McLeman, R., Schade, J., & Faist, T. (2016). *Environmental Migration and Social Inequality. Advances in Global change Research* (Advances in Global Change Research, 61). Geneva: Springer.

McNamara, K. E., & Gibson, C. (2009). 'We do not want to leave our land': Pacific ambassadors at the United Nations resist the category of 'climate refugees'. *Geoforum, 40*, 475–483.

Mertz, O., Mbow, C., Reenberg, A., & Diouf, A. (2009). Farmers' perceptions of climate change and agricultural adaptation strategies in rural Sahel. *Environmental Management, 43*(5), 804–816. https://doi.org/10.1007/s00267-008-9197-0.

Miller, M., García-Martínez, N., Burac, M., García-Ramos, T., Pizzini, M. V., Minnite, L., & Soto-Lopez, R. (2006). *Beyond sun and sand: Caribbean environmentalisms*. New Brunswick: Rutgers University Press.

Morel, M., & de Moor, N. (2012). Migrations climatiques: quel rôle pour le droit international? *Cultures and Conflicts, 88*, 61–84.

Myers, N. (1995). *Environmental exodus: An emergent crisis in the global arena*. Washington, DC: Climate Institute.

Nguyen, M. C., & Wodon, Q. (2014). Weather shocks, impacts and households' ability to recover in Morocco. In Q. Wodon, A. Liverani, G. Joseph, & N. Bougnoux (Eds.), *Climate change and migration. Evidence from the Middle East and North Africa* (pp. 107–122). Washington, DC: The World Bank.

Oliver-Smith, A. (1999). What is a disaster?' Anthropological perspectives on a persistent question. In A. Oliver-Smith & S. Hoffman (Eds.), *Angry Earth. Disaster in anthropological perspective*. New York: Routledge.

Piguet, E. (2010). Chapter 6. Climate and migration: A synthesis. In T. Afifi & J. Jäger (Eds.), *Environment, forced migration and social vulnerability* (pp. 73–85). Heidelberg: Springer.

Piguet, E., Pécoud, A., & De Guchteneire, P. (2011). Migration and climate change: An overview. *Refugee Survey Quarterly, 30*(3), 1–23.

Ransan-Cooper, H. (2016). The role of human agency in environmental change and mobility: A case study of environmental migration in Southeast Philippines. *Environmental Sociology, 2*(2), 132–143.

Rodriguez, H., Quarantelli, E. L., & Dynes, R. R. (Eds.). (2007). *Handbook of disaster research*. New York: Springer.

Sachdeva, S. (2016). The influence of sacred beliefs in environmental risk perception and attitudes. *Environment and Behavior, 9*(5), 583–600. https://doi.org/10.1177/0013916516649413.

Simon, D. H. (2018). Environmental migration in Mexico. In R. McLeman & F. Gemenne (Eds.), *Routledge handbook of environmental displacement and migration*. London/New York: Routledge.

Stark, O. (2005). Comment on 'Migration and income in source communities: A new economics of migration perspective from China'. *Economic Development and Cultural Change, 53*(4), 983–986.

Stark, O., & Bloom, D. E. (1985). The new economics of labour migration. *The American Economic Review, 75*(2), 173–178.

Steward, J. H. (1972). *Theory of culture change: The methodology of multilinear evolution*. Urbana: University of Illinois Press.

Taylor, J. E. (1999). The new economics of labour migration and the role of remittances in the migration process. *International Migration, 37*(1), 63–88.

The Government Office for Science (TGOFS). (2011). *Foresight: Migration and global environmental change future challenges and opportunities*. London: The Government Office for Science.

Timmerman, C., Heyse, P., & Van Mol, C. (2010). *Project paper 1: Conceptual and theoretical framework. EUMAGINE Research Project*. Antwerp: University of Antwerp.

Timmerman, C., De Clerck, H. M.-L., Hemmerechts, K., & Willems, R. (2014a). Imagining Europe from the outside: The role of perceptions of human rights in Europe in migration aspirations in Turkey, Morocco, Senegal and Ukraine. In N. Chaban & N. Holland (Eds.), *Communicating Europe in times of crisis external perceptions of the European Union* (pp. 220–247). Basingstoke: Palgrave Macmillan.

Timmerman, C., Hemmerechts, K., & De Clerck, H. M.-L. (2014b). The relevance of a 'culture of migration' in understanding migration aspirations in contemporary Turkey. *Turkish Studies, 15*(3), 496–518. https://doi.org/10.1080/14683849.2014.95474.

Timmerman, C., Maria Fonseca, L., Van Praag, L., & Pereira, S. (2018). Dynamic interplays between gender and migration. Leuven: Leuven University Press.

Van Mol, C., Snel, E., Hemmerechts, K., & Timmerman, C. (2018). Migration aspirations and migration cultures: A case study of Ukrainian migration towards the European Union. *Population, Space and Place, 24*(5), 21–31. https://doi.org/10.1002/psp.2131.

Van Praag, L., & Timmerman, C. (2019). Environmental migration and displacement: A new theoretical framework for the study of migration aspirations in response to environmental changes. *Environmental Sociology, 5*(4), 352–361. https://doi.org/10.1080/23251042.2019.161303.

Warner, K. (2010). Global environmental change and migration: Governance challenges. *Global Environmental Change, 20*(3), 402–413.

Warner, K. T. A., Henry, K., Rawe, T., Smith, C., & de Sherbinin, A. (2012). *Where the rain falls: Climate change, food and livelihood security, and migration. Global policy report of the where the rain falls project.* Bonn: CARE France and United Nations University Institute for Environment and Human Security.

Wodon, Q., & Liverani, A. (2014). Climate change, Migration, Adaptation in the MENA region. In Q. Wodon, A. Liverani, G. Joseph, & N. Bougnoux (Eds.), *Climate change and migration. Evidence from the Middle East and North Africa* (pp. 3–36). Washington, DC: The World Bank.

Wodon, Q., Burger, N., Grant, A., Joseph, G., Liverani, A., & Akacheva, O. (2014). Climate change, extreme weather events and migration: Review of the literature for five Arab countries. In E. Piguet & F. Lackzo (Eds.), *People on the move in a changing climate. The regional impact of environmental change on migration* (pp. 111–134). Dordrecht: Springer.

Yuval-Davis, N. (2015). Situated intersectionality and social inequality. *Raisons politiques, 58*(2), 91–100.

Zickgraf, C. (2018). Immobility. In R. McLeman & F. Gemenne (Eds.), *Routledge handbook of environmental displacement and migration* (pp. 71–84). London/New York: Routledge.

Zietlow, K. J., Michalscheck, M., & Weltin, M. (2016). Water conservation under scarcity conditions: Testing the long-run effectiveness of a water conservation awareness campaign in Jordan. *International Journal of Water Resources Development, 32*(6), 997–1009. https://doi.org/10.1080/07900627.2016.1159947.