

Investigating the myths and perceptions of the link between environmental changes and urban migration in Vietnam

A case study in the Mekong Delta and Ho Chi Minh City



Name of student	Judith Jonker
Registration number	910803410010
Name of supervisors	Dr. Jeroen Warner Dr. Ingrid Boas
MSc program	International Development
Chair group	Sociology, Development and Change
Specialization	Disaster Studies
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Abstract

Climate-induced migration draws a direct link between environmental changes and migration. Many policies on environmental changes and urban migration are based on this understanding, which can have drastic consequences for the affected people. However, this link is not empirically supported and seems to be much more blurred than suggested. This thesis provides theoretical and empirical insights about the relation between environmental changes and urban migration based on in-depth interviews with various stakeholders in the Vietnamese Mekong delta and literature review. The multicausality of the drivers of migration is explained, as well as the role of social networking within the migration dynamics. Migration is one of the adaptation strategies among many others. The adaptation strategies are negotiated in a social network on different levels: the household, community, and local government. People interact with the various drivers of migration. The Vietnamese Mekong delta is used as a case study to investigate the myths and perceptions of environmental changes and urban migration.

Keywords: environmental changes, urban migration, drivers of migration, myths, climate-induced migration, perceptions, social networking

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1. Introduction

Environmental changes and urban migration have been investigated in various studies, but it is still empirically understudied how they are interrelated. This research is focused on the different myths and perceptions of this link. First the context of this research is explained, followed by the research aim, the relevance of this research and the research questions.

Context of the research

This MSc thesis is written as part of the Master International Development at the Wageningen University. From February until August 2016 I conducted research towards the various myths and perceptions of the link between environmental changes and urban migration in Vietnam. The first three months I wrote a thesis proposal, involved myself in the current scientific debates on environmental changes and urban migration, and got in contact with some researchers in the field. A 2-month fieldwork was conducted in the Mekong delta and HCM City. Fifty stakeholders in the field were interviewed: experts, policy makers, rural residents, and urban migrants. A description of the research methods is provided in chapter 3. During the last phase of the research I analyzed the gathered empirical data, compared it with the state of art, and wrote this MSc thesis.

The case study of this thesis is the Mekong delta and Ho Chi Minh City, Vietnam. This research field was chosen because the Vietnamese Mekong delta is affected by environmental changes (Chun 2014, Chun 2015, Garschagen 2015, Danh and Mushtaq 2011, Marquart-Pyatt et al. 2014, Nguyen et al. 2012). Most people in the Vietnamese Mekong delta are farmers and depend on agriculture. Environmental changes have a significant impact on their livelihoods. Ho Chi Minh City attracts rural people for seasonal or permanent urban migration. The way local stakeholders and policy makers perceive and deal with environmental changes differs, and this thesis goes partly into the question in what way these perceptions vary.

Research aim

The aim of this thesis is to gain a better understanding of the relationship between environmental changes and urban migration. To unravel this link, the various myths and perceptions of urban migration as an adaptation strategy to environmental changes in Vietnam are investigated.

I use three main theories in this thesis to investigate the link between environmental changes and urban migration. First of all, the myths around climate-induced migration are investigated. Climate change is often directly related to migration, and presented as the only option to survive for climate-affected people. However, there is no empirical support for such a causal link. It simplifies a complex story in which various drivers and outcomes of migration are present. Furthermore, migration should be seen as one possible adaptation strategy among many others, acknowledging both the positive and negative outcomes (Gemenne and Blocher 2016).

To put climate-induced migration in a broader context, migration is investigated in a multicausality framework developed by Black et al. (2011). This second theory used in the thesis focuses on the different drivers of migration, such as economic, social, political, demographic and environmental drivers. Migration should not be reduced to climate change drivers, because it always takes place in a complex setting in which different interests are at stake. However, this theory still focuses on the push and pull factors in migration. Although social aspects get some attention in Black et al.'s framework, it does not show the importance of social networking in migration dynamics.

The theory on social networking zooms into the local perceptions. It acknowledges the relevance of taking the social side in migration dynamics into account. It draws the context in order to understand the social practices around migration. Migration is often explained in economic terms, viewing migrants as calculating actors between push and pull factors. The social networking theory allows for a method to investigate the local perceptions and recognizes the changeability of social networks. All the above theories are further explained in chapter 2.

To combine these theories and the empirical data, I developed a concept model about the migration dynamics. This model is included in the discussion (chapter 7). It views potential migrants as part of a social network consisting of various layers: household, community, and local government. The drivers of migration are negotiated in each layer of the social network, and people interact with these drivers. It emphasizes the social context in which migration decisions are made.

As a final note of this section, the choice to use ‘environmental changes’ rather than the ‘climate change’ is explained. Climate change is a highly contested concept, and there is no consensus on the meaning of the concept as well as the way to measure climate change (White 2011). Moreover, most of the local stakeholder respondents were not familiar with the concept of climate change. That is why this thesis uses the term ‘environmental changes’ rather than the contested and often unclear concept of climate change.

Research relevance

This research contributes to the scientific debate about the link between environmental changes and urban migration. As stated above, this link is empirically understudied, and my fieldwork adds some empirical insights to the state of art. HCM City’s population included one third of registered internal migrants in 2009, so that means a number of about 2.5 million people who migrated from another part of Vietnam to HCM City (UNDP 2014). The total number of urban migrants is probably much higher, because seasonal and temporary migrants were not counted. It is relevant to investigate what role environmental drivers play in these migration patterns. In the environmental security discourse, climate change and massive displacement of millions of climate refugees are linked (Foresight 2011). This framing risks to neglect the multicausality of migration, and strips people off their own decision. This research investigates the various myths around climate-induced migration, and what the consequences of these myths are.

Next to the myths, also the perceptions of various stakeholders are investigated. The way local stakeholders perceive environmental changes and how they deal with it depends on people’s tenure position, their sense of agency, and access to adaptation strategies (Crona et al. 2011, Krause et al. 2015). Perceptions of local stakeholders cannot be generalized, because they are subjective and sometimes conflicting. Perceptions of policy makers are based on scientific knowledge, and this also impacts the way policies on environmental changes and urban migration are formulated and implemented. How these various perceptions support or conflict with each other is discussed in this thesis.

The most striking finding of this research is that most local stakeholder respondents are resigned about environmental changes and the impact on their livelihoods. The current environmental changes are considered as ‘part of life’, and people try to adapt to it in order to survive. The respondents often did not relate their adaptation strategies to environmental changes or climate change, but perceived it as a way of surviving. Another important finding is that there is no direct link between environmental changes and urban migration, according to my sample. Respondents mentioned economic drivers of migration as the most important factor of migration,

while environmental drivers were more indirectly related to migration. Farmers relying solely on their agricultural output are very vulnerable to environmental changes, which can influence their decision to change to off-farm activities in rural or urban areas.

The relevance of this thesis becomes clear in the investigation of the various myths and perceptions of environmental changes and urban migration. The research findings about the resignation of local stakeholders, and the indirect link between environmental changes and urban migration are important insights in and contributions to the scientific debate on the interrelation between environmental changes and urban migration.

Research questions

The main question of this research is: *What are the various myths and perceptions of the link between environmental changes and urban migration, and in what way do they conflict or support each other?*

The main question is divided in sub-questions:

- what is the role of myths on climate-induced migration, and what are its consequences?
- what are the drivers of migration, and in what way is this explanation of migration limited?
- what role does social networking play in migration dynamics, and how does this support or conflict with the empirical data?
- in what way do the perceptions of local stakeholders and policy makers of environmental changes and urban migration support and conflict with each other?

These sub-questions combine the main theories used in this thesis with the empirical data. By perceptions of local stakeholders I mean the views of the rural resident respondents in the Mekong delta and urban migrant respondents in HCM City about environmental changes and urban migration. By perceptions of policy makers I mean the views of the interviewed policy makers in the Mekong delta about the local and national policies in Vietnam on environmental changes and urban migration.

Set-up of thesis

The thesis design is as follows. First, the theoretical framework is provided. Then the methods are explained followed by the description of the research area. In the results chapter, an overview of the gathered empirical data is provided followed by an analysis and a discussion. In that chapter the empirical data is compared with the state of art and a reflection on the research is provided. The conclusion answers the main question including both theoretical and empirical insights.

2. Theoretical framework

To investigate the link between environmental changes and urban migration, it is relevant to analyze the existing literature on this interrelation. The theories discussed in this chapter offer the framework of this thesis, and form the leitmotiv for the rest of this thesis. The first theory is Bettini and Andersson's (2014) theory on myths in climate-induced migration. This theory looks into the various myths around climate-induced migration, and its consequences. From this discourse perspective I turn to the second theory: Black et al.'s (2011) theoretical model on the drivers of migration. This

theory offers a broader context of the various drivers of migration, in which climatic or environmental changes also play a role. The last theory is Schapendonk's (2015) theory on the role of social networking in migration dynamics. This theory is focused on gaining a better understanding of the role and changeability of social networking in migration dynamics. These theories are discussed with inclusion of other relevant literature, and the theories are connected with each other. First of all, the theories and discourse about climate-induced migration are investigated, then the research perspective is enlarged by including other drivers of migration, and finally the theoretical framework is zoomed into the perspectives and practices in the field: how does migration work and what role does social networking play in that?

2.1 Climate-induced migration: policy myths and its consequences

To get an understanding of the scientific debates around environmental changes and urban migration, one important discourse is the environmental security discourse. This discourse emerged in the 1980s and links environmental change with security. Environmental change, recently focused on climate change, is framed as a threat to global order and stability (Trombetta 2008). The concept of climate refugees finds its origin in the environmental security discourse, which frames climate refugees as a threat to (inter)national security. The discourse links climate change to massive displacement of millions of climate refugees (Baldwin 2012). This framing risks to neglect the multicausality of migration and strips people off their own decision (Foresight 2011). IOM (2007) uses the concept of environmental migrants instead of climate refugees. It defines them as "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". The concept of 'migrants' is less politicized than refugees, and acknowledges people's agency more. But the definition still views environmental change as the single driver of migration, and lacks a more holistic approach by looking at the various drivers and outcomes of migration. Climate change migrants are becoming increasingly important figures in contemporary climate change discourse, but they remain ambiguous and hard-to-define identities (Baldwin 2012).

In spite of an increase in discussions and academic debates, climate-induced migration remains a contested issue. The contested concept is part of degradation narratives, according to Hartmann (2010), which link poverty due to population pressure to environmental degradation and migration. Particularly in Western policy circles degradation narratives remain popular, because it kills a number of birds with one stone (*ibid*). There are myths around the concept of climate-induced migration, referring to descriptions and explanations that narrate real environmental issues through convincing storylines used in media and policies, but oversimplify the human-environment interactions (Bettini and Andersson 2014). In the environmental security discourse, climate change is directly connected to migration. Such a causal relationship is not empirically supported, and it simplifies a complex situation in which various drivers and outcomes of migration are present. There are various drivers of migration, according to Black et al. (2011), of which environmental change is one. The multicausality of migration is further explained in section 2.2.

Furthermore, the environmental security discourse frames migration as the only adaptation strategy for climate-affected people to survive. However, there are many adaptation strategies and migration should be seen as one possible option among many others (Gemenne and Blocher 2016). Migration can have both positive and negative outcomes. Urban migration can lead to improved living standards and increased income, but it can also increase vulnerability to the effects of

environmental hazards (Seto 2011). People can stay in their habitat and accept the costs, stay and adapt to the changes or migrate.

Myths have a strong effect on the public opinion through media framing and on policy-making processes. Myths are taken as facts in the media or policy documents, but at a closer look myths are often uncertain, highly contested and misleading (Forsyth 2003). Myths are used as a way of framing to clarify or make sense of the world around us. This may sound superficial, but framing and myths can have real consequences if political decisions are motivated by them (Wesselink and Warner 2010). If research or policies are based on myths, it becomes part of the reasoning of individuals or institutions; the narratives are legitimized and become real in that sense.

The main policy of the Vietnamese government to deal with the environmental changes is the relocation program. Since 2000, the government relocated around one million climate-affected people in the Mekong delta to safer areas. The relocation program aims to improve the living conditions of flood affected communities. It seems that this program is based on the myth that relocation leads to improved living conditions, as a direct relation. Although this program reduces the exposure of local people to disasters, it does not necessarily decrease vulnerabilities. In fact, relocation can increase vulnerability because of growing unemployment, resulting in decreased job opportunities in residential clusters and poor quality of houses and infrastructure (Birkmann et al. 2013, UNDP 2014). Next to that, local stakeholder perceptions of the relocation program vary greatly, since these people perceive various short- and long-term risks in different ways. There is a mismatch between different values and goals, because the government's programs are mostly based on expert judgments, whereas conflicting appraisals of climate-affected households are rarely considered (Krause et al. 2015).

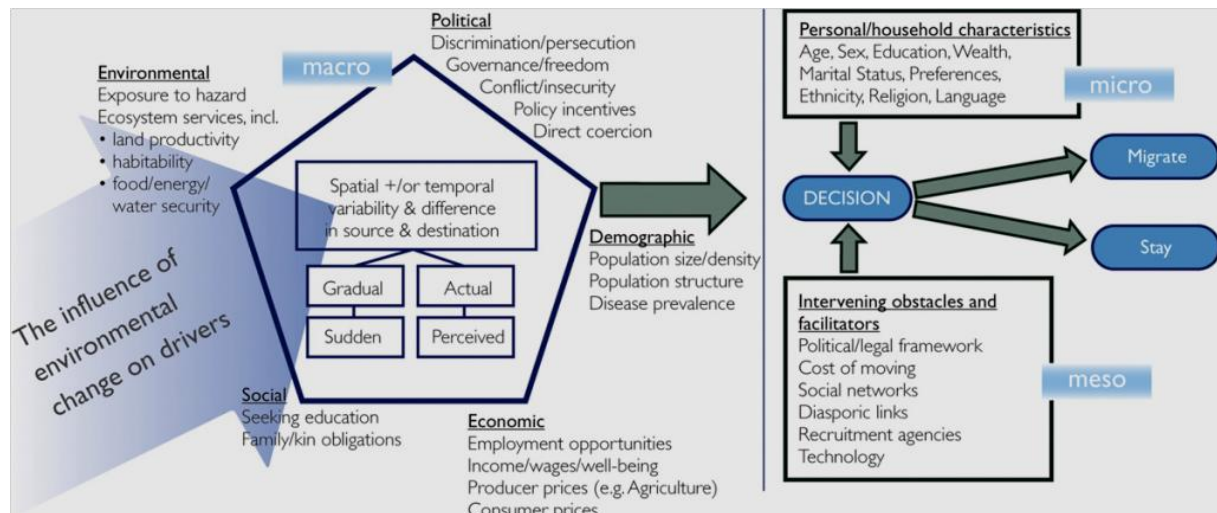
There are various perspectives of local stakeholders of environmental changes and urban migration. Perspectives are relative, influenced by the ability of an individual to cope with and adapt to environmental problems (Koubi et al. 2015). People have perceptions of both the threat of a hazard and of their capacity to respond. The perceived capacities include the expected outcome of a strategy and means to implement it. Thus, people need not only perceive environmental changes as threats, but also judge their capacity to achieve a useful adaptation outcome positively (Krause et al. 2015). Outcomes of migration and relocation can be perceived as positive as it creates new opportunities for some, while others experience it in a negative way because it can increase their vulnerability. Local stakeholder's perceptions of environmental changes are diverse, because they have different risk positions and access to adaptation strategies. Perceptions of reality are less clear-cut than myths, and may even be contradictory.

The next section is about the drivers of migration. The theory on drivers of migration moves away from the discourse and emphasize the multicausality of migration. It criticizes the direct relation between environmental changes and migration, while acknowledging various drivers of migration.

2.2 Drivers of migration: multicausality and complexity of migration

Climate-induced migration suggests that climate or environmental change is directly linked to migration, while other studies go against this idea. Environmental change is rarely the sole cause of out-migration, as migration occurs in a broader socio-economic and political context (Neumann et al. 2015). Measuring climate-induced migration and making generalizations regarding the causes and consequences is challenging. In order to gain a better understand of the link between environmental changes and migration, other drivers of migration such as political, social, economic and demographic drivers are also included in my research. These drivers are interconnected in the sense that

environmental changes have an impact on (seasonal) migration, but always in conjunction with other socio-demographic drivers (Piguet 2015). For example, environmental change can affect migration directly through hazards or disasters, but also indirectly through economic drivers by changing livelihoods or through political drivers by affecting conflicts over resources. Migration is too complex to label it simply as environmental or climate-induced (Hartmann 2010).



Source: Black et al. (2011)

Black et al. (2011) developed the above framework about the drivers of migration. On the left side of the framework, the macro level indicates five different factors that influence people's decision to migrate or stay. Environmental factors are about the exposure to hazards which can affect the land productivity, habitat ability, and food, energy, water security. On the political side, discrimination, the level of freedom, conflict, policy incentives, and direct coercion could push people out of their habitat. Demographically, the population size and density, structure and disease prevalence can influence people's decision to stay or move. Economic factors are the most obvious factors for people to migrate from rural to urban areas. There are more employment opportunities and incomes are higher in the city. On the other hand, consumer prices are much higher such as food and rent prices. The last factor is the social factor, which implies seeking education or family obligations. All these drivers were included in the interviews with urban migrants (see appendix 2) to investigate the role and interconnectedness of the various drivers.

The perceived and actual differences between the place of origin and the destination can influence whether people choose to migrate or not. The factors that alter these differences can change gradually or suddenly, which has an impact on the migration patterns. In addition, Hunter (2005) distinguishes between forced and voluntary migration in response to environmental change. Sudden environmental change typically involved forced migration or displacement, whereas voluntary migration may be a result of slow-onset environmental change. However, it is difficult to measure the 'voluntariness' of people's decision to migrate, because the migration decision always takes place in a complex setting in which both forced and voluntary reasons may play a role. It does seem empirical grounded that sudden environmental changes such as typhoons, storms and floods are more likely to trigger temporary migration, while slow-onset changes such as drought, erosion, and salinization tend to trigger more permanent migration (UNDP 2014).

On the upper right side of the framework, Black indicated the micro level. The micro level is about the personal and household characteristics of potential migrants, and it includes age, sex,

education, wealth, marital status, preferences, ethnicity, religion, and language. These factors may influence the decision of migration. According to the expert respondents, most urban migrants in Vietnam are young people, between sixteen and thirty years old. Both men and women migrate, and in general they have medium to higher education level. Their income is low and most migrants are unmarried. Decisions are often made in a family context, so the family and power relationships are taken into account. According to Stark and Bloom (1985), migration is viewed as a family strategy to maximize earnings and reduce agricultural vulnerability. The migrant's remittances ensure the family against income variability.

On the lower right side of the framework, the meso level is indicated. This level is about the intervening obstacles and facilitators, such as the political framework, costs of moving, social networks, diasporic links, recruitment agencies and technology. These factors represent the 'push' and 'pull' factors in migration: a push factor could be the agricultural technology that limits the amount of work on the farm, and a pull factor is for example the recruitment agencies that try to link migrants with urban companies. According to the policy maker respondents, the government policies in the Mekong delta are focused on relocation and not on urban migration. The costs of moving are low, but living costs in the city are a lot higher. If a migrant network exists at the destination, the costs of migration are generally lower because new migrants get assistance in finding a job and house (Lilleor and Van den Broeck 2011). Through diasporic links people keep in contact with their families and send remittances. These social networks and diasporic links are constantly changing in migration dynamics, according to Schapendonk (2015). His theory of social networking is further explained in the next section. There are recruitment agencies from both the government and companies that link rural people to companies in the industrial areas, and provide trainings for off-farm jobs. Mechanization decreases the amount of work on the farm so farmers have to look for an off-farm job to generate sufficient income.

All these factors on macro, micro and meso level are influencing people's decision to either migrate or stay. This analytical framework seeks to focus attention away from the idea that environmental change directly causes migration, towards an understanding of the broader drivers of migration, and how these are susceptible in different and interlinked ways to environmental change (Black et al. 2011). However, this framework still explains migration in the light of push and pull, the place of origin and destination. To gain a better understanding of migration dynamics, the next section investigates the role of social networking. Social networking moves away from a broader migration theory, and allows for a method to zoom into the local perceptions and what happens on the ground.

2.3 Social networking: analyzing the social dynamics in migration processes

Economic explanations are key in migration studies that focus on push and pull factors, while the complexity of migration is neglected. It reduces migration to an in-between phase between two locations, and the migrant as movers between those places (Schapendonk 2014). A different approach is that of social networking, which elaborates on the theory of social network. The climate-induced migration discourse focuses on the myths around migration, while the social networking theory emphasizes the local perceptions of migration. The social networks within migration dynamics are investigated, and Schapendonk (2015) states that we should recognize the changeable nature of social networks. The approach criticizes the assumption that networks are simply 'out there'. Family ties and kinship solidarity play key roles in migration dynamics, but these networks are not static. In

migration processes, networks change: new ties may emerge while other ties are lost. New interactions between people create new networks.

Within the theory of social networking, the concept of resilience is at stake. There is no consensus about the definition of this concept, because it is used with many different intensions and with a very wide extension (Brand and Jax 2007). Adger (2000) explained resilience in sociological terms as 'the ability of communities to cope with external stressors and disturbances as a result of social, political, and environmental change'. Social networking takes place in a social system, and the level of resilience is expressed in the learning and adaptation capacity of that system. Ways to adapt to environmental changes are informed and shaped by social negotiation, and it depends on a community's capacity in what way people deal with their changing environment. To operationalize resilience, respondents were asked about their perceptions of the ability of their household, community, and local government to deal with the environmental changes. However, resilience remains a fuzzy concept (Methmann and Oels 2015), so it is difficult to measure. I describe resilience in the light of environmental changes as 'the perceived ability of households and communities to adapt to the changing environment'.

Schapendonk (2015) notes four networking elements. First, networks and social capital change constantly, because they are formed and maintained in interaction between people. Networks are subject to constant and strategic mediation. Connecting with other migrants may increase migrant's power and strength. The changeability of social networks in migration dynamics are investigated by measuring whether and how people keep in contact with their home community, and in what way they build new networks with other migrants and the host community.

The second networking element is about the role of power relations in social networks. Larsen and Urry (2010) argue that social networks are only meaningful if they are performed, by which they mean that people talk, write and meet each other to sustain social networks. People have network capital which refers to the access to communication technology and the skills to use it. For example, migrants call or use social media to connect with their relatives, according to my sample. Larsen and Urry (2010) emphasize that not everyone is in the same networking position, and that not all migrants are able to benefit from their transnational connections. The networking capacity depends on individual skills and power.

The third networking element is based on research of Pathirage and Collyer (2011). They focus on 'network work', referring to the effort that is needed to accumulate social capital from social connections. It takes effort to maintain networks or to create new ones. Social networks are, particularly during migration processes, subject to constant and strategic mediation. If social networks are well-maintained and mutually understood, social capital can reduce the costs of the migration process. This could, for example, mean that migrants with well-maintained social networks with other migrants has better access to employment opportunities. On the other hand, mismanagement of social networks can lead to financial loss and new barriers in the migration process. Migrants may even be entirely cut off from their social connections in such a case.

The fourth and last networking element is about the interdependency of social networks. The level of connectivity does not only depend on the migrant's agency, but also on the intensions and efforts of those who they try to connect with. Portes (1997) states that communities are bounded solidarities, which implies that migrants do not always receive the support they need when they reach their destination. Social networks are interdependent, because it is about relations between various people.

This approach emphasizes the different dynamics of migration processes and the diverse outcomes of those processes. New social networks are created among migrants and communities as part of the migration dynamics. Urban migration can have both negative and positive impact on people's vulnerability; for households with better access to adaptation strategies migration can enhance resilience. But households with little access to land, low education level and limited livelihood diversification often rely on internal migration as a survival strategy (Warner 2013). Migration can lead to new and increased vulnerabilities for migrants, host and home communities. In what way the social networks are connected to the drivers of migration is explained in my concept model, which is part of the discussion chapter. But first we turn to the next chapter in which the methods of my fieldwork are described.

3. Methods

This chapter is about the methods of my fieldwork. First the research perspective is explained, followed by the research characteristics and operationalizing. The interpretation scheme shows how I interpreted the concepts, variables and indicators during the fieldwork. My sample is described, including an overview of the interviews. The chapter ends with a section about the limitation, bias and ethics of my research.

Research perspective

The research is mainly done from a constructivist point of view with some scientific realism involved in it as well. Scientific realism asserts that the objects of scientific knowledge exist independently of the minds or acts of scientists and that scientific theories are true of that objective world (Fine 2016). It is based on measures and theories rather than perceptions. This research is partly based on scientific realism in the sense that measures about changing rainfall, salinization and temperature rise are used. But these 'objective' measures do not tell us much about the experiences of local stakeholders and their perceptions of environmental changes. The point of view in this research is mainly constructivist, which means that scientific knowledge is socially constructed and 'facts' or 'reality' are made by us (ibid). People give various meanings to the world around them. This research is mainly focused on the perceptions of local stakeholders and policy makers of environmental changes and urban migration. In this thesis, reality is not something 'out there' but analyzed as a social construct that is explained and perceived in various ways to make sense of the world around people. I speak of perceptions of reality rather than reality itself.

The perceptions one is most likely to advance are informed by the place one occupies economically, in one's community, career, society. It depends on one's position in what way perceptions of reality are formed and constructed. According to my sample, perceptions of policy makers are mainly based on scientific knowledge and predictions, while the perceptions of local stakeholders are based on experiences. Each community has its own 'cultural model' of environmental changes perceptions which means a shared understanding of signs related to environmental changes (Crona et al. 2011). These understandings depend on the community's risk position and access to adaptation strategies. Local stakeholder perceptions of environmental changes are analyzed as part of complex systems in which distinct goals and values play a role. Local stakeholders have different stakes and interests, and that can also influence the way they show their

perceptions of reality. Perceptions are shaped by social interaction, since various strategies are negotiated and decided upon by multiple actors with differing levels of power (Krause et al. 2015).

Research characteristics and operationalizing

The fieldwork has been conducted in the Mekong delta and Ho Chi Minh City from the 20th of April until the 20th of June. The main method used was qualitative research. In-depth interviews were done with experts and policy makers, rural residents in the Mekong delta, and urban migrants in HCM City. Through this method a greater understanding was gained of the context and the various perceptions of environmental changes and urban migration. Part of the research is based on quantitative research, since the causal or correlational link between the two concepts of environmental changes and migration was investigated. I wanted to know what drives people out of their place of residence as a way to test the theory of Black et al. (2011) in the field. Through a comparison table with set indicators (which can be found under Appendix 3), respondents could indicate what they preferred about the city compared to their home town. In that way I could analyze what people note as better in the city compared to their home town, and I assumed this was part of the reason why they migrated. Not all of these points were drivers of migration, but it gave an insight in people's preference and the problems in their place of residence. The time dimension of the research is cross-sectional, which means it is a 'snapshot' of the current situation. The research is not longitudinal, since the fieldwork only took two months.

To operationalize the research, the main concepts were defined by a few indicators and variables gathered in the field. This enabled me to measure and compare the gathered data. On the one hand, my research was deductive because I tested my theoretical assumptions in the field. On the other hand, my research had inductive characteristics because the fieldwork data changed the meaning of my main concepts and theoretical assumptions. For example, the concept of 'adaptation strategies' got another meaning after most rural resident respondents did not mention any adaptation strategy during the interviews. This is partly because they were not aware of the possible strategies or, as one respondent said, she does not have time to think about ways to improve her livelihood.

Initially, climate change was a central concept in my research, but it turned out to be an unknown concept for most respondents. Most respondents talked about changing environmental characteristics and extreme weather rather than climate change. I decided that it would do more right to my respondents if I use 'environmental changes' rather than 'climate change' in my thesis as well. I developed a list of most probable environmental changes in the specific research areas in collaboration with my Vietnamese thesis supervisor. During the interviews I asked the respondents in what way each of these environmental changes influenced their livelihoods.

In the analysis of my data I investigated the major indicators to make sense of the concepts used in my research. From these indicators I could analyze whether the respondent talked about environmental changes for example. Respondents indicated structural changes such as rainfall variability and temperature rise. But not all weather and environmental changes such as drought and salinization are indicated as a result of environmental changes by my respondents.

Interpretation scheme

The interpretation scheme below is used to make broad concepts such as environmental changes meaningful and measurable. In the results and analysis chapters, the variables are compared to show the various perceptions of my respondents. These variables are indicators of a broader concept. In

the discussion part, the connection between the variables and concept is made. The variables are used as empirical evidence for or against my theoretical assumptions.

Concept	Indicator	Variables
Environmental changes	Weather and environmental changes Impact of these changes	Drought, salinization, storms, temperature rise, erosion, rainfall variability, no experience with environmental changes Decreased productivity, less income, destroyed houses, fewer times of harvesting, death, lower quality of life, more sickness, less trade, no impact
Adaptation strategies	Action after changed weather	Saving water, relocation of houses, loan, community saving scheme, education, migration, education, raising foundation of houses, no strategies
Urban migration	Perceptions of life Duration of migration	Comparing level of income, employment opportunities, safety, living costs, health care, education, population size/density, trust in government, living conditions, fresh food Temporary: after saving enough money or graduating Permanently: no family or employment opportunities in home town, return after retirement Unknown: uncertain what is better the option Back and forth: wherever there are employment opportunities
Link between environmental changes and urban migration	Drivers of migration	Employment opportunities, level of income, education, family obligations, exposure to hazards, political insecurity, population size and density
Social networking in migration dynamics	Contact between migrants, with home and host community	The quantity of meetings between migrants, following other migrants, the frequency of phone calls and visits to the home community, remittances, and the level of communication with host community

Sample

As a way to get introduced to the field, my first interviews were conducted with eight experts from Ho Chi Minh University and Can Tho University. The introduction to these experts was based on the snowballing method: the first expert introduced me to the next, and so on. They provided information about the effects of environmental changes in the Mekong delta, adaptation strategies

used by farmers and other residents in the Mekong delta, insights in the political and social historical characteristics of the region, migration patterns, drivers of migration, social networking in migration dynamics, and the role of the Vietnamese government in environmental changes and urban migration. Next to that, one expert also introduced the researcher to three interpreters who translated the interviews with local stakeholders.

Five policy makers in the Mekong delta took part in semi-structured, in-depth interviews. One worked for the local government in Ben Tre province, and was selected through snowballing: one of the rural resident respondents introduced me to him. The interview was structured/semi-structured, because most questions were set beforehand but there was also space for interrogation. The interview took about forty minutes. The other four policy makers worked at the People's Committee in Ca Mau province. They were interviewed all together, and it took about two hours. The set-up of the interview was quite formal. The interview was semi-structured with a lot of interrogation and changes of questions during the interview. The respondents were selected by the Vietnamese government in cooperation with the Can Tho University.



Picture taken during the interview with the People's Committee in Ca Mau province

Thirteen rural residents in the Mekong delta and fifteen urban migrants in HCM City were interviewed. The interviews were structured/semi-structured, and had both quantitative and qualitative characteristics. Some questions were open, and there was less 'interrogation' compared to the interviews with experts and policy makers. Part of the interviews with urban migrants consisted of qualitative data: I asked them to fill out a comparison table between life in HCM City and their home town to unravel the various drivers of migration. The selection of respondents was sometimes random and other times through snowballing: my interpreter just asked someone in the slum or in the rural areas if (s)he would be open for an interview, and sometimes one respondent introduced me to the next. Next to that, a focus group discussion was organized with nine residents in Ca Mau province, which is the southernmost province of the Mekong delta. These respondents were selected by the policy makers of Ca Mau district. Most of the rural residents were farmers.

The questionnaires are included in the appendices. Note that these interview questions changed during the interviews, interrogation and further explanations took place, so the questionnaires were more used as a guide line rather than a fixed set of questions.



Source: Vietnam maps (2016)



Source: Mekong tours (2016)

Overview interviews

The following table is an overview of all the interviews I conducted during my fieldwork. In total I interviewed fifty people, including experts from universities, rural residents in the Mekong delta, focus group participants in the Mekong delta, urban migrants in HCM City, and policy makers in the Mekong delta.

Research group	Men	Women	Total
Experts	5	3	8
Rural residents	5	8	13
Focus group	8	1	9
Urban migrants	8	7	15
Policy makers	4	1	5
TOTAL	30	20	50

Limitations, bias and ethics

Language and education level were barriers, since most of the local stakeholders did not speak English and had a lower education level. All the rural resident respondents in the Mekong delta dropped out of school before 12th grade. Three of the fifteen urban migrant respondents went to a university. Via the HCM University I got in contact with three interpreters who helped me with the interviews of the local stakeholders. I met another man in my hostel in Hanoi who originally was from Germany and spoke fluent Vietnamese and English. He translated eight interviews with urban migrants in HCM City.

Working with an interpreter was necessary and worked well during most of the interviews. It did limit the research though, because it was not possible to communicate directly with most of the respondents. Furthermore, the level of English of most of the interpreters was not very high (except the interpreter from Germany). None of them had experience with translating during interviews, so

the expectations had to be explained and the interpreters were walked through the questions. The interview questions were provided to the interpreters beforehand, and they asked exactly these questions. This is partly why the interviews were more structured and survey-like than expected. Interrogation was necessary if the answer was not clear and regular checks whether the interpreter and me understood each other well. I worked with four different interpreters who were all very helpful.

Misunderstanding due to cultural differences inevitably occurred as well. To limit those barriers, I conducted the fieldwork in collaboration with researchers from HCM and Can Tho University, who were all experienced in conducting research in this specific field. For practical reasons the fieldwork consisted of only two months of data gathering in a few areas in the Mekong delta and HCM City, so it is not possible to provide a general overview of all the perceptions of every stakeholder in the Mekong delta and Ho Chi Minh City. My research is meaningful in the sense that it provides an insight in the perceptions of environmental changes and migration in the Vietnamese Mekong delta. There are different stakes and interests in the field, and that influences the way people show their perceptions of reality. By maintaining an open mind and a reflective approach during the fieldwork, I limited my bias as a researcher.

4. Description of research field: Mekong delta and HCM City

In this section a description of the research field is provided. The research field is Ben Tre and Ca Mau province in the Mekong delta and Ho Chi Minh City. Ben Tre and Ca Mau province are both low-lying coastal areas, and especially during the rainy season subject to flooding. These provinces are sending provinces, since there are many rural people migrating to the city. Salinization has changed the ecological system of the region, influencing the crop production. The average temperature has risen by 0.7°C since 1950, typhoon and flood seasons are longer than before, droughts cause stronger aridity, and rainfalls and storms are more heavy (Nguyen et al. 2012). This year, the Mekong delta is especially prone to environmental changes, because of El Nino. Since the end of 2015, unusual rain patterns attributed to El Nino have caused a lack of water and huge damage to crops in large parts of Vietnam (IFRC 2016). Also according to some expert respondents, the situation in the Mekong delta is worsening because of El Nino this year, due to an exceptional long dry season. The situation is especially severe in the Mekong delta due to salinity intrusion, which reaches 70-90 km inland (ibid). According to dr. Phap, 200.000 hectare was affected by saline intrusion this year.



A sign next to the river in Ca Mau province saying: watch out for landslides 400 m (translated by dr. Tin)

The total population of the Mekong delta is around 17.3 million. Ben Tre province has a population of 1.3 million, and is divided by tributaries of the Tien river in three islands: Minh, Bao, and An Hoa. The coast is sixty kilometers long, and suitable for fishing. Ca Mau province houses 1.2 million people, and is the southernmost province of Vietnam. The fishing industry is highly essential, since the province is surrounded by sea on three sides. The Mekong delta is the main agricultural region of Vietnam. The main source of income of residents in the Mekong delta is agri- and aquaculture; most of the inhabitants are farmers or fishermen, and almost all of them are smallholders. This means that they produce mainly for their own livelihood and the surplus is sold on local markets. People who are dependent on agriculture for their livelihood are especially vulnerable to flooding.

Flooding plays an significant role in the economy and culture of the area. People live with floods and benefit of it, for example because of the fertile soil and good opportunities for fishing. On the other hand, people are very vulnerable to floods, since it can destroy their whole harvest (Warner 2013). During rainy season, most farmers and fishermen rely (partly) on off-farm activities for their livelihoods. Due to the general low educational level and a decrease of natural resources it is difficult for them to generate enough income.

The education level of the Mekong delta is lowest of the whole country, which is part of the reason why most urban migrants only have access to low-skilled jobs (Tuan 2014). Most families have been farmers for generations, and often they do not want to change and do not know how to change jobs. Next to that, because of mechanization there is less work on the farm (Chun 2014). It is predicted by the experts interviewed that increasingly less residents of the Mekong delta will work as farmers, and that the main economic activity will be in the service sector.

A key turning point in the political history of Vietnam is the Doi Moi policy, which was adopted by the leading Vietnam Communist Party in 1986. It introduced a shift from a centrally planned economy to a free-market economy with socialist characteristics (Bryant 1998). It gave rise to many political-economic reforms, and also impacted the agricultural sector. From that time onwards households were considered as autonomous and independent economic units, and the state provided them with agricultural land and land use rights. This political transition led to a growth in agriculture, and Vietnam shifted from a food importing to a food exporting country. The intensification of agricultural land use, on the other hand, also has negative influences, for example environmental degradation and expansion of social disparities (ibid).

The informal economy is predominant in Vietnam. Almost 11 million jobs out of a total of 46 million are part of the informal sector (Cling et al. 2011). This includes all private unincorporated enterprises that produce goods and services for sale, are not registered and engaged in off-farm activities. The largest informal industry is manufacturing and construction, followed by trade and services. According to Cling et al. (2011), 82 per cent of all employment in Vietnam can be defined as informal employment. The main characteristic of informal employment is the lack of social security or insurance. In general, the education level and salaries in the informal sector are low, labor conditions are precarious, and informal household business are vulnerable without capital and professional premises. The informal sector remains completely neglected by public policies in Vietnam and it does not have access to bank loans.

The geo-political interests in the region worsen the situation for farmers. The Mekong delta river originates in China and then runs through Thailand, Lao, Cambodia, where it reaches its final destination in Vietnam. All these countries build embankments and dykes, which leads to a decrease of fresh water in the Vietnamese part of the Mekong delta (Stewart and Coclanis 2011). This has a

direct impact on farmers relying on the fresh water supply for agriculture, and also influences the amount of eatable fish in the river. While there is less fresh water coming from the upstream, more salt water is coming from the ocean side. According to dr. Ha, these contradictory streams make the effects of environmental changes even stronger.

HCM City is situated north of the Mekong delta, and it attracts rural people for seasonal or permanent migration because of the economic opportunities. It is the biggest city in Vietnam, and the financial centre of the country. It houses 7.5 million people, excluding the numerous contract and seasonal workers who are unregistered. The urbanization of HCM City has been related to the process of industrialization following the Doi Moi reforms (Storch and Downes 2011). The population has doubled in 30 years' time, from 1979 to 2009 (Dao 2015). In these numbers the seasonal and informal workers living in the city are not even included although they take up a huge amount of the population. HCM City is a megacity which is increasingly exposed to environmental risks, because of sea level rise and environmental variability (ibid). Most migrants from rural areas live in the newly built suburbs or in the informal expansions of the city, where the vulnerability level is high. The pressure on social services, infrastructure and sewage systems is rapidly increasing with the enormous influx of migrants. This is a challenge for the local government which has to respond to a changing environment.

5. Results: description of fieldwork data

This chapter provides the results of the data collection. The chapter is divided into three parts: perceptions of rural residents in the Mekong delta, perceptions of urban migrants in HCM City, and the perceptions of policy makers of environmental changes and migration. These results describe the various perceptions of my respondents of environmental changes and urban migration. Not all results are directly connected to the main focus of this thesis, but in order to do right to the stories of my respondents, I also included parts that seem less relevant. For example, perceptions of the awareness-raising program of the government of environmental changes was part of the questionnaires and thus included in this chapter, but it does not play a significant part in the discussion. This chapter describes the results of my fieldwork and these are discussed and analyzed in the following chapters.

The topics discussed with the first research group, rural residents, were the experiences and impact of environmental changes, adaptation strategies, awareness, and perceptions of government policies. During the interviews with rural residents I was mainly interested in their experiences with environmental changes and how they dealt with them, so most of my questions were about those topics. The main topics discussed with the second research group, urban migrants, were the drivers of migration, perceptions of life as a migrant, social networking, duration of migration, perceptions of government policies for urban migration. These interviews were mainly focused on the respondents' decision to migrate and how they use social networking in their migration. The last research group were the policy makers. Their perceptions were investigated by discussing the effects of environmental changes, government policies, suggestions for improvement of policies, awareness programs, and urban migration policies. These questions were about the particular government policies on environmental changes and urban migration, and what the respondents' ideas were about these policies.

5.1 Perceptions of rural residents

Sample

This part is based on 13 interviews with rural residents in Ben Tre province and on a focus group discussion with 9 rural residents in Ca Mau province. Most of my respondents rely on their income generating agricultural and aquacultural activities. The main source of income of my respondents is selling fish from the Mekong river. I interviewed five men and eight women. The age ranged between 26 and 72, with an average age of 51. The reported income ranged between 102 and 480 euro per month, with an average income of 170 euro per month. The education level ranged between fourth and eleventh grade, with an average education level of 7th grade. The focus group consisted of eight men and one woman with ages ranging between 28 and 64, with an average age of 47. The picture on the right was taken in Ben Tre province where I held five interviews.



Experiences of environmental changes

Salinization is one of the most experienced effects of environmental changes. According to half of the respondents, there was not so much saline intrusion in the past, but it is becoming more frequent. In Ca Mau province the main effect of environmental changes is erosion. During the focus group discussion, people told me that the river side is increasingly coming inland: seven years ago, the river side used to be twenty meters further away. More and more water is coming towards people's houses and their agricultural land, and the respondents said that this is very dangerous for both the people and their crops. Temperature rise is also an influential effect that four people indicated as an environmental change of the last five years. One man said that the temperature was never higher than 32 degrees Celsius ten years ago, but now it is often over 35 degrees. The temperature is also less predictable, it changes suddenly. Storms have a huge damaging effect, but it was not mentioned as an effect of environmental changes. According to five respondents, drought has become more problematic since two years, because the rain pattern is less predictable and there is a lack of fresh water. The latter is partly due to upstream interests, because countries such as China and Thailand are building embankments to keep the fresh water of the Mekong delta in their country. Less rain impacts the productivity of rice, fruit and other crops: it can reduce the yield with 40-50 per cent, according to dr. Phap. The last effect of environmental changes that was mentioned by one respondent is the changing water level, since the fluctuation between high and low tide increased a lot.

Three respondents said that they had no experience with environmental changes. One woman did not know what it meant, even after my explanation of salinization, typhoons, temperature rise, and lack of fresh water. Another woman said that she knows about environmental changes, but her life and work are not affected by it because she grows coconuts which grow with salt water.

Impact of environmental changes

About half of the respondents said that the indicated environmental changes affected the productivity of rice, other crops and fish. People can even lose their whole harvest due to these

changes and unpredictable weather patterns. The area to catch fish is decreasing, especially the last three years. Four people indicated that there is less edible fish, and that this impacted their income. Two respondents said that their houses were destroyed by a storm or typhoon. According to two respondents, the time windows for harvesting are decreasing. In the past there were three harvests per year, while there are only two nowadays. If there is a delay in harvesting this season, it also impacts the next season. The focus group participants said that people die because of erosion and especially landslides. Two respondents said that the quality of life is lower. According to two respondents, there is more sickness now and will be in the future. One woman indicated an impact on the trading activities, because if farmers make less money they also spend less in the shops and on trading activities. Three respondents said that they did not experience any impact of environmental changes.

Adaptation strategies

Rural residents use various adaptation strategies. Most respondents were involved in off-farm activities to generate income outside farming. They are motor taxi drivers, sellers of lottery ticket, or traders. Saving water during the rainy season is a strategy that three respondents mentioned, so they can cope with the drought during the long dry season. But the amount of water available is often not enough, so the farmers have to buy water which is quite expensive. Another strategy used is the relocation of houses, which was mentioned during the focus group discussion. Some people do not wait for the government to relocate them, but take control of the situation by relocating their house themselves. As a financial strategy, some communities start a saving scheme or obtain a loan from the bank, according to the focus group participants. The problem with the community saving scheme is that the amount of money is too limited for agricultural investments, because it costs a lot of money. During the discussion group, people also said that they raised the foundation of their houses to protect them against the sea level rise.



Trinh (35) lives in Go Cong (Ben Tre province). Her husband is a farmer and she sells lottery tickets to contribute to their household's income and support her two children to go to school. According to Trinh, everybody in her home town is struggling to survive because of a lack of fresh water, temperature rise and salinity intrusion. She lived in HCM City for 10 years, but when the company cut the amount of workers she was fired. Then she decided to go back to her home town.

Education of children is another strategy which was mentioned during the focus group discussion, because the income of agriculture is decreasing and there is less work in farming. Parents send their children to school to learn something else than farming, so they can study and look for a good job. However, it depends on the financial situation of the family whether they can send their children to high school and university. Poor farmers can mostly only pay for elementary education for

their children. These children get back to their family to work on the farm because they need more money for living.

About half of the respondents mentioned migration as a strategy to cope with the difficult living conditions in the Mekong delta. However, they did not necessarily see this as an adaptation strategy to environmental changes, but rather as a way to survive the worsening living conditions in the Mekong delta. Mostly young people in the Mekong delta migrate to the city for work. This could become problematic in the future, as a big amount of the young generation moves to the city while mainly old people and children left in the rural areas. Although most migrants plan to move to the city temporarily, it seems to be difficult for most of them to move back without any savings and a life (and sometimes even a family) built up in the city.

One man said that he did not alter his livelihood after environmental changes, three respondents said that they did not have any idea how to adapt to it, and half of the respondents did not mention any adaptation strategies at all. This is striking, because it seems that people are resigned about their situation and they do not think about ways to deal with the changing environmental changes. During the focus group discussion one participant said that negative thinking does not enable you to do something. Even though the community faces a major problem with environmental changes and they worry about the impact of landslides, they still hope that good things will come in the future. One woman said that they all try to deal with these environmental changes whatever is within their capacity. Another man said that they need to take action in order to secure themselves, and they do not have a choice.

Adaptation strategies are limited and it depends on the community's capacity in what way they can access various adaptation options. Changing to another farming system is difficult, because they live in a saline zone. According to the focus group participants, people have no other choice than to engage in shrimp farming. Dr. Phap said that shrimp farming is very risky, because people rely on one farming activity. There are various crops suitable for fresh water, so that can diversify farming activities. But salt water is only used for shrimp farming. Use of fertilizers could be helpful, but it is too expensive for most farmers. Furthermore, fertilizers are full of chemicals that pollute the environment, according to dr. Phap. Environmental changes are considered as a global problem, with local impact and especially poor farmers are affected by it. They have limited resources to deal with environmental changes. One man said that the farmers in his home town are experts on farming techniques, but the impact of environmental changes is out of their control. Another woman said that she does not know how to deal with such a big problem. She plants trees around her house, clears the garbage and protects her house. But she knows it is not enough. Her resources to deal with environmental changes are limited, so she thinks there is a need for governmental or international support. Dealing with environmental changes is a global responsibility, she claims, so other people and governments should take their responsibility as well.

Awareness

Most respondents told me that there is quite a lot of knowledge available about environmental changes and they experience the impact of environmental changes as well. Almost all respondents said that most knowledge about environmental changes is provided by the government, which uses various channels of information provision. The local government invests a lot in awareness raising programs. According to dr. Phap, in the past farmers did not believe that environmental changes happened, but now they experience the environmental changes in their agricultural activities, so they cannot deny it anymore. However, some expert respondents said that people are slow to adapt due

to the low education level. In the past, the natural resources were very good and one did not have to work very hard to produce enough crops. But now that is changing partly due to environmental changes.

Four respondents indicated the meetings organized by the local government to provide knowledge on environmental changes on a monthly basis, and to encourage people to plant trees, redistribute the seasonal calendar, adapt to the new agricultural technologies and to environmental changes in general. Next to these meetings, the local government uses different media channels such as news on the television and in news papers to create more awareness. One woman said that the government has a plan to improve the forecast on environmental changes for the local people to be better prepared. In schools, teachers teach about environmental changes and the children can give this information to their parents.

Three respondents expressed dissatisfaction with the information of the government about environmental changes. One respondent said that they only provide information during natural hazards. Another respondent thought that only people in cities knew about environmental changes, because there is no knowledge about that in his home town. One man said that he needs more exact knowledge so the farmers know how to deal with environmental changes. During the focus group discussion the participants concluded that people know enough about environmental changes, but they need to know what the desirable solutions are to deal with that situation. For example by planting new trees that can absorb the CO₂ or new solutions to deal with the landslides.

Perceptions of local government policies

Most of the respondents were able to mention a few government policies on environmental changes. They are aware of most of the government policies. Four respondents mentioned that the government builds dykes, three respondents mentioned that the government supplies water, two respondents said that the local government gives financial support after natural hazards. Two respondents mentioned the government loans, two other respondents said that the government organizes relocation programs, one respondent indicated the mangrove planting by the government, and one respondent mentioned that the government introduced improved farming techniques. Two respondents were satisfied with the government support, while four respondents said that they want to receive better support.

The respondents provided a few suggestions to improve the government policies and programs on environmental changes and migration. Three respondents suggested that the government should provide more financial support after natural hazards, two respondents suggested better supply of fresh water, and one respondent said that the government should develop forests and mangrove, and build more dykes. One man said that local people should be involved more in the policy making. The focus group participants said that the government should develop a better macro level strategy to deal with environmental changes, and invest more in relocation programs. One woman said that she really wants government support, but it is just a dream because she thinks the government will never support her. Another man said that the government is not treating all citizens equally, because they only support people who they like or are related to them. It seems that not all people have trust in the local government and its policies and support.

Migration

All respondents had a relative or acquaintance who migrated to the city. Most of them keep in contact with them via mobile phone and the migrants visit their home town twice a year on average,

mainly during public holidays. One respondent said he supported his relatives to migrate. Five respondents said that they receive remittances. But about half of the respondents that told me that their relatives were not able to send remittances, because they do not make enough money. They can only make enough money to cover their expenses.

None of the respondents would like to migrate to the city. Most of them think it's a good thing that their relatives migrated, because they can get a better job there and can support the family. But especially the older generation is afraid they would not find a job there, because of their age. Migration is more for the younger generation and those who are higher educated. One woman lived in HCM City for ten years, working for a construction company. But they reduced the amount of workers, so she had to go back to her home town. She was happy with that, and did not have any plan to go back to the city. People think life is more comfortable in the rural area, there is more fresh food, the weather is better, everything is much cheaper and there are fewer diseases.

5.2 Perceptions of urban migrants

Sample

This part is based on 15 interviews conducted with urban migrants in HCM City. Most of the respondents live in a slum and have a low income. I interviewed eight men and seven women. The age ranged between 17 and 61, with an average age of 38. The reported income ranged from 120 to 600 euro per month, with an average income of 261 euro per month. The education level ranged from no education to university graduates, with an average education level of 8th grade. The picture on the right is taken from a bridge in HCM City in district five, and shows a slum village where I conducted three interviews.



Drivers of migration

The economic driver is the main reason for migration, according to the respondents (see table 1). 14 respondents said that they migrated to the city for work and higher salaries. Mainly young people migrate to the city for work. It is easier to find work and money in the city. Two respondents said that they love cooking and the opportunities for a job as a cook are much better in the city. But urban migration is sometimes also experienced as the last resort. One respondent told me that he went into debt because of a failed harvest, and he was not able to pay the money back in time. According to him, he had no other option than to migrate to the city.

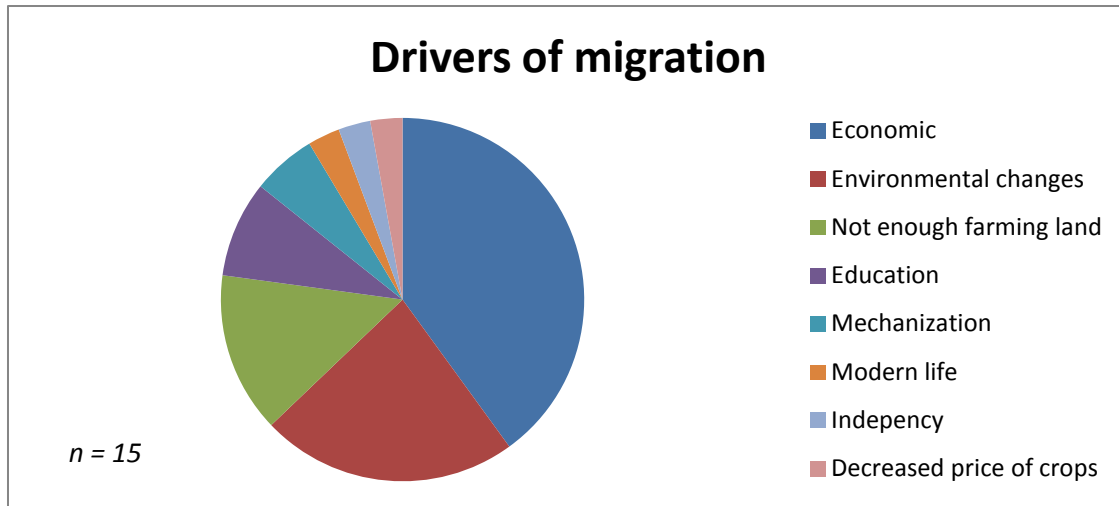


Table 1: Drivers of migration

The difficult and uncertain living conditions in the rural areas due to environmental changes were mentioned by about half of the respondents. Whether these environmental changes were an actual driver of migration is not clear, but the respondents did mention that it was difficult for them to generate sufficient income partly due to salinization, flooding, drought and temperature rise. One respondent said that due to flooding farmers cannot work all year through. As stated before, most urban migrants are young and want to have a better and more stable income than their parents. According to a few respondents, their parents are farmers and struggle to survive. The young generation is expected to take care of their family, thus a substantial amount of youngsters decide to generate a higher income elsewhere and send remittances to their family. Two respondents said they did not experience environmental changes in their home town, because they came from areas far away from the coastal provinces, which are less affected by environmental changes. One respondent told me that he was indirectly affected by environmental changes because his family works as traders. They sell less products to the farmers, because they have less money to spend due to decreasing harvests.

One-third of the respondents said that the small amount of agricultural land was not enough to grow crops and generate enough income for the whole family. Education was mentioned by three respondents as a driver of migration. Families that can afford to send their children to a high school or university in the city hope that their children get a better job and can support the family with their salaries in a later stage. Two of the respondents migrated for educational reasons, and one woman moved to the city to seek better education opportunities for her children. Next to that, two respondents said that the use of machines reduced the amount of work for the farmers significantly which led to unemployment among farmers. It became more difficult for farmers to generate enough income after the decrease in price of rice and other crops. The city appealed to two respondents for its modernity and opportunities for independency because one can work the whole year through and is not dependent on the seasons.

Perceptions of life as a migrant

Most of the respondents preferred to live in their home town compared to the city (see table 2). Most respondents said that they live in the city because of the level of income and employment opportunities, and three respondents also chose to live there for educational reasons. These are indicators of potential problems in the rural areas, because there is a lack of employment and good

education opportunities. Most respondents said that the health care and living conditions are better in the city, and they have a slightly higher trust in the government in HCM City. On the other hand, living costs and population size are considered much better in their home town. People feel safer and there is more fresh food available in the rural areas. In general, most respondents prefer their home town. Next to the table, there were other positive aspects mentioned about their home town by the respondents: living close to the ancestors is a meaningful cultural custom, life is more quiet in the rural areas, and the weather is better.

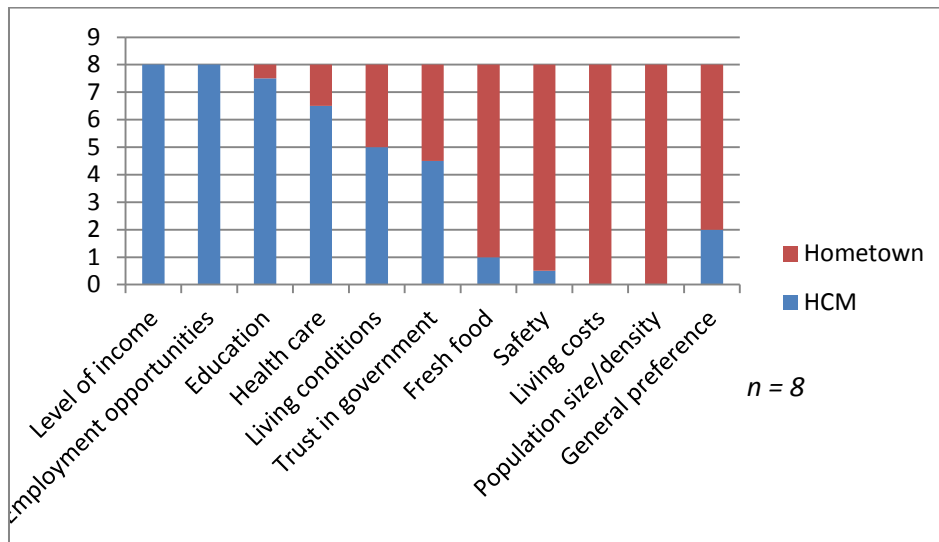
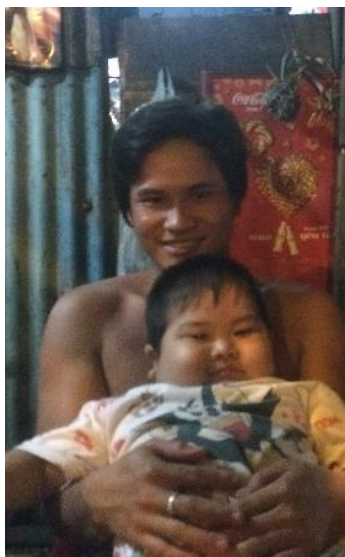


Table 2: Comparison HCM City and home town

Four respondents mentioned the high expenses and the difficult living conditions in the city. They make just enough to survive, but they are not able to save money. According to dr. Tuyen, adapting to the new living situation in the city is often perceived as a way of surviving by the urban migrants. They need to spend more money on rent and food compared to their home town, because land is much cheaper in rural areas and they would produce their own food there. The little amount of money they can save is mostly sent to their family in the rural areas. Because of the general low education level, most migrants can only get low paid, low-skilled jobs. It is easy to find a job in the city, but a good, well paid job is a different story. Two higher educated respondents were able to save money. One man saved the money he made as a cook so he could start his own restaurant in his home town in a few years time.



De (25) is from the Mekong delta and lives in HCM city since 5 years. He has a wife and two children. He works as a construction worker, but it is difficult to make enough money with that to support his family. He wants to send his children to school, but it is too expensive for him. His son (3) is sick, but De does not have the money to treat him in the hospital. He wants to move back to his home town, because he thinks life is better there. But there is no work for him.

Social networking

Between migrants and home community

Half of the respondents said that their relatives are still living in their home town. Mostly the parents of the respondents live in their home town, and one respondent said that his wife was living in the home town to take care of the house and family. One man had nine siblings who were living in different places; two migrated to Germany, three stayed in their home town, and four live in HCM City as well. Two respondents had a few relatives living in the city.

About half of the respondents said that they keep in contact with their family in their home town via telephone. Most of my respondents visit their family on a regular basis. The regularity of visiting family varies a lot; from every two weeks to twice a year. It depends on the distance to their home town and the amount of free days they have from work. One respondent said that it is too expensive for her to travel there often.

About half of the respondents sends remittances to their family. The amount of money is between one and eighty euro at a time. Table 3 shows the amounts of remittances. Four respondents send remittances on a monthly basis, while the other three respondents only give money when they visit the family, when the family asks for financial support, or send money without regularity. Four respondents do not send remittances, because they do not make enough money or because they think their family does not need it. Six respondents said that they receive money from the family in case of sickness, as a support for the migration or for the school fee if they migrated for educational reasons.

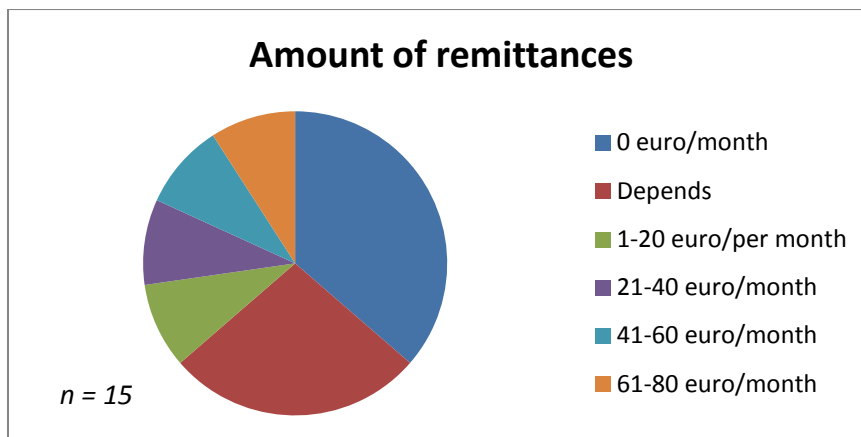


Table 3: Amount of remittances from urban migrants to family

Between migrants

Half of the respondents knew someone who migrated to the city before they migrated themselves. Four respondents said that they had a relative who already lived there, and three respondents had an acquaintance who migrated to the city before they did. Following other migrants is part of their social networking strategy. In the city, respondents support each other in various ways. Four respondents said that they look for jobs for each other, they lend money to each other, or provide financial support if someone is sick. Most respondents are in contact with other migrants. They have known each other from their home town, and meet each other at work or in the university. Every year there is a gathering of migrants from the same region in the Mekong delta during a new year's ceremony in HCM City. One respondent has no contact with other migrants, because he does not know other

migrants from the Mekong delta living in HCM City and he said it was difficult to grow relationships with other migrants.

Between migrants and host community

About half of the respondents is not in contact with people from HCM City. One woman is scared about the cheating and corruption in HCM City, so she does not want to connect with people from here. Two respondents said that they know some people from HCM City, but they are not friends. They just work together, talk from time to time, but they do not have a deep relationship with them. One man said that he thinks people from HCM City are too rich and have a different level of life. Only one woman said that she has contact with people in her neighborhood who come from HCM City. The rest of the respondents did not mention whether they are in contact with people from HCM City. According to one respondent, people in HCM City are more open to people from the Mekong delta compared to people from the North. His explanation was that the French divided the country in 3 regions: North, central and South. It seems that people from different regions do not get along well. It was a long time ago, but it still influences. Perhaps in the next generation this will change, the respondent states.

Duration of migration

Most respondents were planning to stay only temporarily in the city (see table 4). How many years 'temporary' means is not clear; most respondents said they want to stay a short time to save enough money, but they did not indicate how many years they would need to save enough money. Two respondents were working in a restaurant and are able to save money. They save money to start their own business in their home town. One woman wants to stay in HCM City for about four to five years, and hopes that she can work at one of the shortly opened companies nearby her home town. There is much uncertainty about when people can go back to their home town though, and when they saved enough money. One man wants to stay only for a short time, but he has no idea if he can ever save enough money to go back. Another man wants to earn money so he can pay back his debts and go back to his family in his home town. But he does not know when he will have enough money to pay it back. A man who has lived in HCM City for five years already wants to go back to his home town as soon as possible, but he does not have enough money and he does not know how long it will take.

One respondent has been moving between his home town and the city for 10 years. He works as a farmer in his home town when he has free time in the city. It depends where he can make better money. Most respondents go back to their home town only during public holidays for a few days.

One woman said that she will go back to her home town after she graduates. But it depends whether she will get a job offer in the city, because then she will probably stay here. Another woman was planning to go back to her home town after her daughter graduates.

There were three respondents who were planning to live in the city permanently. One man had no plan to return because he cannot find work in his home town and his whole family lives in the city, one woman did not want to go back to her home town because she likes the excitement of the city, and another man wants to continue working here and go back to his home town after retiring. However, one of these respondents said that he would go back to their home town if the government would create more jobs there, and that people can live longer in the Mekong delta. These are indicators that people actually do prefer to live in their home town.

One respondent did not know whether she would stay temporarily or permanently in the city. She said that the future of her children is uncertain, because farming in the home town is too hard, but working in HCM City is also difficult.

It is striking that there are most respondents living in the city who actually want to go back to their home town. Most of them are not able to save money, and most of my respondents live in slums in impoverished situations. Most respondents do not enjoy their lives in the slum, but they live in the city for years and they do not have a concrete plan to go back. Although most respondents plan to stay only temporarily in the city, it is difficult for them to make enough money to return to their home town. The family in their home town expects them to generate money and save that for the family. Migrants are mainly young people who are expected to take care of the family, also financially.

Perceptions of local government policies

There is barely to no government support for urban migrants. People are on their own and have to take care of their own survival. Most of the respondents were resigned about that, and they did not have an idea how the government could support them. One respondent said government support is not necessary, because he makes enough for himself. Another respondent said that the government just does not care about the people. The authorities do not have a solution and do not involve local people in the policy making process, one respondent states. According to two respondents, the local government in HCM City does help migrants by providing a working certificate, but other than that there is no government support. One man said that he thought his voice is not strong enough to make a change.

Most respondents had no clue how the government could support them and improve their situation. One woman said that she did not have any idea about that, because she has no time to think about that since she is always working. She has no idea how the government works and what they do. It seemed that most respondents are not aware of their rights and duties as a citizen, and the government is not supporting the ones in need. One respondent could not even send their children to school, because the school fee was too high. The suggestions two respondents came up with were about job creation in their home town. The government should build industrial parks in the rural areas to create employment and relocate people to these areas. According to one respondent, there is need for a more long-term policy for environmental changes and urban migration, now it is still too short-term. Next to investment in employment, the government should invest in hospitals and education in the Mekong delta. One respondent suggested that the government would provide loans to pay off debts, and another respondent suggested a decrease of electricity and water costs. One respondent said that he needs financial support for school fees.

5.3 Perceptions of policy makers

Sample

This part is based on interviews with five policy makers. One from Ben Tre province and four from the People's Committee of Ca Mau province. I interviewed four men and one woman. Compared to chapter 6.1 and 6.2 I used a different method, because I did not report differences between respondents, but I accumulated the information. This is because I only interviewed five respondents during two interviews, so I could not compare the respondent's answers that much. I did compare the differences and similarities between the respondents of the local government of Ben Tre and Ca Mau province.

Effects of environmental changes

The local government in Ca Mau province mentioned sea level rise, drought and erosion as the main environmental changes in their province. Sea level rise causes salinization, and the combination of that and drought causes saline intrusion on the main land. This impacts the rice fields a lot, because the soil becomes too salty to grow rice and other crops. The shortage of fresh water impacts people's livelihoods and their harvests, especially during the dry season. It also impacts the quantity of eatable fish. There is a decrease in cattle and a slower development of plants. According to the policy makers respondents, experts said that this kind of drought happened over 100 years ago, so it is an extreme event. Erosion is the main environmental change in the south of Vietnam. The ocean and river mouth are highly damaged by it.

Government policies on environmental changes

The Vietnamese government has a national program for environmental changes, but this is quite general. The provinces develop more specific programs pointed at the distinct environmental characteristics. On provincial level, the government builds scenarios to prepare the region for the future. This is part of a longer term strategy to prepare for the coming 30-50 years of a changing environment. In the Mekong delta, local governments focus on building relocation zones: a way to move exposed people to safer zones and create job opportunities in the relocation areas. Also planting mangrove to reduce sea level rise is a government strategy against environmental changes. Mangrove along the coast attracts shrimps, so the farmers can benefit from it. According to dr. Ha, the mangrove forest management depends on the provincial and community level: in some provinces the forest is well protected, while in other places they are only focused on production and economic benefits of the mangrove forest.

The local government in Ben Tre province invests in water security, disaster response, financial support for farmers who are affected by environmental changes and extra support for the poor people. In Ben Tre province, there are no relocation programs, because there were no storms lately, according to the policy maker respondent. Only when there are severe storms the government relocates people temporarily. According to dr. Phap, the local government wants to increase the quantity of rice production because the population is increasing, so they introduced some water management programs and increased the amount of harvesting. But they cannot manage well due to the lack of fresh water this year and the program is not sustainable because the soil needs to recover at least two months after harvesting.

In Ca Mau province there are three environmental changes related programs. The first one is the relocation program. This entails selecting sensitive areas that are highly exposed to environmental changes, building new villages in safer zones with the rural areas, and relocating the affected inhabitants. Within this program there is a project on poverty elimination and improving social well-being. The second program is about rural vocational training and linking farmers. The government provides a training course to teach farmers how to use improved agricultural techniques, train them in processing their agricultural harvest to create added value, and link them to other actors in the value chain. So for example by linking farmers to farmers to increase knowledge sharing, but also by linking farmers to traders so there is better information about the available supply and demand. The third program is about building cooperatives together with the farmers, so the people can work together. Knowledge and information sharing is easier with cooperatives. In all these programs, building and improving local capacity is central. According to dr. Vinh, it is difficult to get

the farmers to cooperate, because they all have their own interests and there is no consensus on the goal they want to strive for.

One of the aims of the Vietnamese government (2011) is to deal with environmental changes while boosting sustainable development. Vietnam, as a developing country, exploited its natural resources, using cheap labor, and causing environmental pollution. Environmental changes can bring about chances to rethink about development and change towards a more sustainable model with a low-carbon economy.

Suggestions for improvements of policies

According to the policy maker respondents, the livelihoods of people who are relocated should be improved. There should be an increased focus on employment creation, so relocated people are less vulnerable in their new environment away from their land. Almost all the expert respondents mentioned the necessity of employment creation in the Mekong delta. Creating industries in the rural areas can help farmers to diversify their income. According to dr. Phap, it is the responsibility of the government to invest in these industries, because companies often think it is too expensive due to the lack of sufficient infrastructure for example. The government needs to make the rural areas more attractive for investors and companies. The problem with the relocation program is the livelihood activity for the relocated people. It is very difficult for them to adapt and looking for a new job.

The local government organizes vocational trainings to help local people to adapt, but they need financial support. The jobs are not available for them, because there are more people who are looking for a job compared to the demand. For example, farmers are used to the shrimp production, but when they move to the relocation zone they only have jobs in the service sector. It is difficult for them to adapt to something they are not familiar with.

Awareness programs

The Government of Vietnam (2011) states on its website that the community's awareness of environmental changes is still very limited and one-sided, mainly centering on negative impacts but not on matching life styles, models of production and consumption with orientations of low-carbon and green growth. Public awareness and capacity of responding to environmental changes should be improved by enhancing the policies and measures on environmental changes.

According to the policy maker of Ben Tre province, there is a lot of knowledge about environmental changes available for local people. There are various media channels informing people about environmental changes, and it is also taught in schools. Though, there is need for more education from experts and support from foreign countries. There is a special program for awareness raising.

The government of Ca Mau province also uses various media channels to create awareness about environmental changes and to make sure all people understand the same thing. Next to these more formal ways, they also use the existing informal channels between farmers to provide information. Via cooperations information about environmental changes is easily spread among farmers. Environmental changes are already impacting the lives of people in the Mekong delta, so most people are aware of it. In the past, the farmers did not know what the concept meant, but now they do.

There is a lot of awareness and knowledge about environmental changes among farmers. Everyone experiences it, and people speak about it with each other. But since the amount of information is so huge and uncertain, even experts do not know everything about it.

Policies for urban migration

According to the policy maker in Ben Tre province, there is only a limited amount of people from that province migrating to the city. The district has numerous factories, so local people can find jobs easily and they prefer to work in the rural areas than in cities. The local government does not support migrants in any way.

According to the respondents of the government of Ca Mau province, urban migration is the natural movement of young labor. Because of mechanization, the labor in the agricultural sector is decreasing. That is why young people move to the city to work and earn more money. And after they make money, they send back remittances to the rural areas. The GDP is changing, because there is a decrease in generating income from agricultural activities. It is expected that the percentage of income generation from agricultural activities will reduce to 35% and service, trading, and construction work will increase to 65% by 2020. In the past the agricultural land was divided in small plots, but now the land is combined so it is easier to use machines and new technologies. This leads to a decrease of available work for farmers, so off-farm activities become more appealing.

One of the government policies for migrants is to recruit and link people to companies in HCM City. The recruiters come to the rural areas to select the people who want to work in the city, and they organize trainings to improve their skills first. Next to that, they also build industrial zones in rural areas to create employment, so not all people have to migrate to the city.

In sum, this chapter provides an insight in the collected data of the fieldwork. Environmental changes play a role in the lives of the rural resident respondents, and it impact their livelihoods. Most respondents are farmers, so they mainly rely on their agricultural output for their income. Changes in the weather such as rainfall variability and more extreme environmental events such as erosion have a considerable impact on them. People adapt to these environmental changes in various ways, but the most striking finding is that about half of the respondents did not mention any adaptation strategy at all.

Urban migrant respondents mentioned various drivers of migration of which the economic reason was the most important. The difficult living conditions partly due to the environmental changes in the home town was another reason to migrate next to the lack of agricultural land. Most respondents prefer to live in their home town, but most of them had no concrete plans to return due to a lack of savings. Urban migrants keep in contact with their family via phone calls, regular visits, and remittances. Half of the respondents followed another migrant and they keep contact with other migrants. Most respondents are not in contact with people from HCM City.

The policy maker respondents mentioned various government policies on environmental changes. Some policies are focused on the long-term such as scenario building and the relocation program, while other policies are more temporarily based such as disaster relief. The local government provides vocational trainings, develops farmers cooperations, and links farmers with each other and other actors in the value chain to add value. The government invests a lot in the awareness programs on environmental changes, because it is important to be on the same page with the local people about these changes, according to the policy maker respondents. Urban migration is the natural movement of young people, and the GDP is shifting towards the service sector while agricultural income is decreasing. The local government supports urban migrants by recruiting and linking them to companies in the city.

This chapter described the perceptions of my research groups: rural residents, urban migrants, and policy makers. From this chapter we will turn to a more analytical part in which two different groups are compared.

6. Analysis: comparison of perceptions

In this chapter the collected data is analyzed. There are two groups that are compared: the policy makers and local stakeholders (rural residents and urban migrants), and the low and higher educated urban migrants. Each section includes a few variables that are compared among two groups. The comparisons are connected with the theoretical insights.

6.1 Comparing policy makers and local stakeholders

This part focuses on the differences and similarities between the perceptions of policy makers and local stakeholders. The local stakeholders are the rural residents and urban migrants. First, we will look at the different knowledge basis, then we turn to the short- and long-term strategies, followed by a comparison of relocation and migration. We will first look into the underlying values and knowledge systems behind people's reasoning.

Scientific and local knowledge

According to Krause et al. (2015), the Vietnamese government favors the values of scientists over those of the climate-affected people. This is partly shown in my data: the five policy makers that were interviewed said that the policies are mainly based on scientific knowledge, research and predictions. The respondent of the local government in Ben Tre province believes in scientists to prevent environmental changes. Those scientists are environmental change experts from the university of HCM City, Hanoi and Can Tho. In the last few years, the local government has involved the local people more. In that way, they say, they combine scientific and local knowledge. For example, farmers in coastal areas provide information about sea level rise to the experts. Nowadays there is awareness on environmental changes among local farmers.

The local government of Ca Mau tries to combine scientific knowledge with local knowledge. Based on the theory and predictions of scientists combined with the local knowledge and farmer's experiences with environmental changes they build scenarios of environmental changes. According to dr. Tuan, the national government is less centralized and listens more to the provincial and community level. The local government tries to improve the skills of farmers and prepare them for the future impact of environmental changes by organizing trainings on improving agricultural techniques. These trainings take a few months and there is a weekly feedback moment so the farmers can share their experiences with the new techniques. In the past, these trainings were based on a top-down approach, but now the farmers are more actively involved. The trainings are more bottom-up, according to the interviewed policy makers. Through cooperatives, the local government has more knowledge about what happens 'on the ground', according to dr. Tuyen.

The perceptions of local stakeholders are mainly based on experiences. They have local knowledge because of their daily agricultural practices. People are good natural observers of their local environment, and this knowledge contributes to models and understandings of environmental changes (Crona et al. 2011). The local knowledge depends on one's tenure and physical position, for

example the distance to the sea. What is perceived as a good adaptation strategy depends on one's position, because it is subjective and negotiated in social interaction (ibid). According to Crona et al. (2011), each community has its own 'cultural model' of environmental changes perceptions. This means that each community has its own perception of environmental changes based on individual and historical experiences that are context specific. For example, in communities in coastal areas such as Ca Mau province the local knowledge on environmental changes is focused on erosion and salinization, while local stakeholders in Ben Tre province are more concerned about temperature rise and drought, because they live in an area further off-coast. The cultural model is about cultural consensus, and it is used as a way to investigate to what degree people within specific places share perceptions about environmental changes.

According to Krause et al. (2015), there is a mismatch between different values and goals, since the government's programs are mostly based on expert judgments, whereas conflicting appraisals of affected households are rarely considered. In general, local stakeholders do not have access to scientific knowledge, so their perceptions are mainly based on their own experiences. They compare their harvest with their neighbors who may adapt to environmental changes in a different way, and decide what works best, according to dr. Ha. They are not focused on the macro level, but just on the benefits of their own farm. Local people recognize the importance to adapt to environmental changes, because they experience the impact themselves, according to dr. Tuan. However, dr. Tuyen states that people react very slowly and not effectively to the changing environment. It takes time to get all the stakeholders on the same page and to implement effective adaptation strategies, according to dr. Vinh. The basis of the perceptions of policy makers and local stakeholders is very different, so the outcomes also differ. Through media and meetings organized by the government, local stakeholders get more knowledge about the effect of environmental changes on macro level. Most local stakeholder respondents mentioned these awareness raising programs of the government as a way to improve their knowledge about environmental changes. But a few of them complained about the low level of knowledge and education about environmental changes. They said they need more exact knowledge about the impact of environmental changes and especially more concrete examples of desirable solutions to deal with environmental changes. The basis of reasoning also has an influence on the term of the adaptation strategies, which is discussed in the next paragraph.

Long term and short term strategies

The main difference between government measures and local adaptation strategies against environmental changes is the term of it. Government programs are more focused on the future, while adaptation strategies of local stakeholders are more about surviving the coming season. The government's main climate-related policies are the relocation program, vocational trainings of farmers and linking them to other actors in the value chain, and building cooperatives as explained under 5.3. Next to that, the local government of Ca Mau province builds scenarios about the future of environmental changes of the coming 30-50 years. All these programs are focused on the long-term and involves different actors.



During the focus group discussion, people said that they have to cope with climate change in order to survive

The local adaptation strategies indicated by the rural resident respondents are buying and saving water, relocation of houses, loan from the bank or a community saving scheme, education for their children, raising the foundation of houses, and migration. These adaptation strategies are limited, because most people lack the resources to adapt well to environmental changes, there are no other farming options, and many strategies are too expensive for the farmers, according to my respondents. Farmer strategies are ad-hoc, and they rarely have a future plan. They react to the changing environment in order to survive. The community's capacity is limited, and that is one of the reasons why their adaptation strategies are more short-term compared to the government policies. Local stakeholders perceive various short- and long-term risks in different ways (Krause et al. 2011). However, it appears from my interviews that local stakeholders can be pro active. Even though they worry about landslides for example, they said they have to cope with the changing environment to survive. They said they do not have a choice, because it can kill you if you do not take action and secure yourself.

The national strategy on environmental changes of the Vietnamese government is only focused on the coming five to ten years (Government of Vietnam 2011). According to dr. Tin, the government policies are very unstable, since the government changes its policies and perceptions of the way to deal with environmental changes often. Dr. Thien from HCM University agreed with that, because the government lacks a long-term vision on environmental changes. So, although the government policies are more long-term than most local adaptation strategies, one can question the actual duration and stability of these policies and programs.

Developing long term strategies against environmental changes is difficult, according to the policy maker respondents, since environmental changes are part of a global problem with a huge local impact. What environmental changes exactly enhance is difficult to capture in a few words, but my respondents said they do experience changing weather patterns and a decreasing harvest. Especially poor and landless farmers are affected by environmental changes and they have limited resources to fight against the effect of it. According to the local government in Ben Tre and Ca Mau province, the local government cannot fight environmental changes alone since it is a global problem. Also local stakeholder respondents said that the impact of environmental changes is out of their control, and even scientists do not know how to deal with it. There is need for more shared global responsibility. Local communities need to get support to deal with the impact, that is caused by different global problems. After discussing the short- and long-term strategies, we will now turn to a comparison between relocation and migration.

Relocation and migration

The main government program for environmental changes is the relocation program. Relocated people are moved from sensitive areas to safer zones, so they are less exposed to environmental changes and their living conditions are improved. Although the program improved the infrastructure, supply of water and electricity, and housing in rural areas, it does not necessarily mean that the program is successful. It fits partly in the explanation of political discourses based on myths by Bettini and Andersson (2014). Real environmental issues are explained through convincing storylines in policies and measures, but oversimplify the human-environment interactions (ibid). Moving people to decrease the level of exposure to environmental changes sounds convincing, but it often increases the vulnerabilities of people. The Vietnamese government policies do not always resonate with the local perceptions of reality, because policies do not acknowledge the complex perceptions of reality

of local stakeholders. According to dr. Phap, the involvement of farmers in the program happens gradually and the government does acknowledge the need to involve various local stakeholders.

A consequence for people who are moved to relocation areas is that they can become more vulnerable. The relocation program can increase vulnerability because of growing unemployment, resulting in decreased job opportunities in residential clusters and poor quality of houses and infrastructure (UNDP 2014). Most people have been farmers their whole lives, so it is difficult to adapt to a new job without much training. People cannot generate enough income, and the government support is very limited. Next to that, there is a loss of social networks, because not all people from a certain home town are moved to the same relocation area. Furthermore, my respondents identified living close to their family and ancestors is highly important. People feel connected to their land, and none of my respondents wanted to leave their land. If they are relocated, it is not possible to live close to the ancestors, nor to the work on their land.

There is an information gap about migrant's laws and regulations between the local government and local stakeholders. The problem is that most urban migrant respondents said that there was no government support for migrants, while the local government does provide support for urban migrants. This could be because they are just not aware of the government policies, or that the policies are not readily available for migrants. In general, urban migrants work in the informal sector which lacks any form of social security, and public policies in Vietnam remain to ignore this sector (Cling et al. 2011). According to Vietnam's Constitution, all citizens have equal rights. However, the rules of the system continue to create barriers for non-residents (including migrants) to access essential services and basic rights (UNDP 2014). There is no legal framework that protects internal migrants (ibid). Most urban migrant respondents were barely aware of their rights as citizens, which makes it difficult to find and make use of the supporting policies. The only government support that two respondents could mention was about the working certificate. But other than that my respondents did not know of any governmental support.

The local government in Ca Mau province is trying to create employment in the rural areas by building industrial zones. This connects well to the needs of urban migrants. Most urban migrant respondents migrated for employment reasons, because there are not enough jobs in their home town. This means that there is need for better employment opportunities in the rural areas. But according to the urban migrant and expert respondents, there should be more government investment in creating employment in the rural areas, because there are still many people who cannot find a job close to their home town and migrate to the city. In the city, my respondents said, they face difficulties to find proper housing and a good job. Most of my respondents live in informal settlements in slum villages in HCM City, and they prefer to go back to their home town. But in order to move back, they need savings which is difficult with the small salaries they get.

The next section is focused on the impact of education. A comparison between low and higher educated migrants is provided by discussing various variables.

6.2 Comparing low and higher educated migrants

People with a higher education level have a better chance of upward social mobility (Deary et al. 2005). I investigated upward social mobility by analyzing the level of income, savings, sending remittances, plans for remigration, and sending children to school. I compared these indicators between migrants with a low education level (no education until fifth grade) and migrants with a

higher education level (6th grade and higher) in my data: six respondents have a low education level, eight respondents are higher educated, and the education level of one respondent is unknown.

Income

Low educated respondents reported an income between the equivalent of 4 and 10 euro per day. On average they have an income of 6.33 euro per day. The reported income of higher educated migrants interviewed varies between 4 and 14 euro per day. On average this means 8.67 euro per day. Two of the higher educated did not mention their income, so the average income is about only six higher educated respondents. One higher educated woman was supported by her family to study in the city, and that is why she did not have an income. My data shows that there is a difference in income between low and higher educated migrants of 2.33 euro per day. It is difficult to be sure about the amounts people reported, since people tend to lie about their income. The fact that urban migrants make more compared to rural residents does make sense though, because, in general, the salaries are higher in urban areas compared to rural areas in Vietnam. Whether this difference has an impact on the ability to save is discussed in the next section.

Savings

Most of the low educated respondents said they do not save money, because they make just enough money to survive. Due to the high living costs in HCM City it is difficult for them to save money. One woman tried to save money, but it is unknown whether she succeeds in that. According to Nguyen et al. (2015), migrants in the service sector are more likely to have savings than migrants in industry and production. The lower educated respondents work in construction and plastic industry, so this could be part of the reason why they do not have much savings. Higher educated respondents work in a variety of sectors and have different jobs: factory workers, construction workers, teacher, and cooks. None of these jobs are in the service sector.

Most higher educated respondents are able to save money. They save money so they can go back to their home town within a few years, and start a business there for example. But there is also a respondent who said he cannot save money, because he makes too little money and has to spend a lot of his income on rent. Thus, higher education can have a positive influence on the ability of saving money according to my sample. The ability to save is connected to the amount and frequency of sending remittances, which is discussed in the next section.



Khiem (28) works as a cook in a restaurant in HCM city. He saves around 120 euro per year so he can open his own restaurant in his home town. His plan is to go back within three years. Khiem sends some of his savings to his family that is still living in his home town.

Remittances

Sending remittances to the family back home is considered as highly important by my respondents. Remittances can encourage other workers in the family to migrate as well, because they get the idea that working in the city offers good saving facilities and hence good earnings (Bettini 1965). Half of the low educated respondents do not send money to their families, because they either do not have enough income or because their whole family is already living in the city. Although the level of income of low educated respondents is fairly low, the other half of my respondents still sends money to their families. On average they send twenty euro per month. Remittances are an increasingly important source of income for migrant's families who stay at the home town (Garschagen 2015, Nguyen et al. 2012).

Most higher educated respondents said that they send remittances to their families. It depends per respondent how much and how often they send remittances, but they reported amounts between forty and eighty euro per time. Most of them said they send this amount on a monthly basis. This amount is much higher compared to the low educated respondents. A few higher educated respondents do not send remittances because they make too little money, the family does not need it, or they are still financially dependent on their parents.

Higher educated respondents are more likely to send remittances, and also higher amounts of money compared to low educated migrants, according to my sample. Whether higher education also impact migrant's plans to go back to their home town is discussed in the next section.

Plans for return

Most low educated respondents said they want to go back to their home town after they saved enough money. They want to go back because their family lives there, life is easier and cheaper, there is more fresh food, more space and proper housing, more government support, cheaper education, better health care, lower living costs and better safety. One man did not have any plans for return and one woman said she did not know whether she would stay in the city or go back to her home town. She prefers HCM City for the employment opportunities. In her home town it depends on the season how much she can make and she needs to work longer, while she can make enough money on a daily basis in the city. However, she cannot save any money.

Also most higher educated respondents said they want to go back to their home town. They want to go back, because their family lives there they want to start a business in their home town or because it is safer and more comfortable there, living costs are lower, it is more spacious, living conditions are better, they have more trust in local government, and there is more fresh food. A few higher educated respondents want to stay in the city, because of the job opportunities, the education level, better health care, better living conditions and more trust in the local government because they are more open minded and have more knowledge. One woman said she prefers the excitement of the city.

Both groups prefer to go back to their home town, but probably the higher educated migrant are more likely to succeed in that because of their higher income. However, Junge et al. (2015) states that people who are higher educated and trained in off-farm work are more likely to stay in the city and do not return to their home town. Junge states that higher educated migrants are more 'successful' in migration compared to lower educated migrants, so they are more likely to stay in the city. The main reason to return is being close to family and ancestors, according to most respondents. They prefer to stay in the city mainly because of employment and income reasons. The comparison of HCM City and the home town shows why people prefer the one above the other place. There are

various reasons for people to migrate and to stay in the city. Some of the reasons for that are mentioned by the positive aspects of the city compared to their home town. Some of the reasons to prefer their home town are captured in the preferences for the home town indicated by the respondents. The last variable discussed is the education level of children of both low and higher educated migrants.

Sending children to school

There is a link between low education of parents and their children, because low-educated parents are less likely to send their children to school, especially in case of a low income (Deary et al. 2005). Half of the low educated respondents did not mention whether their children go to school or not. The other half said that they do not send their children to school. I asked them about the future of their children. One woman said that she does not know if it would be better for her children to stay in the city or go back to their home town, because farming is too hard, but working in HCM City is also difficult. One man said he would send his children to school if they were living in his home town, because it is much cheaper compared to HCM City. Next to that, he does not mind about what his children will do in the future, and whether they stay in the city or go back to his home town.

Most of the respondents had no children, so it was not possible to ask them about the education of their children. Most urban migrants are young, and they migrate without a partner, and this is visible in my sample as well. Two respondents who did have children did not mention whether their children go to school, and one respondent wants to send his 4 years old daughter to school in the future. The woman whose education level is unknown migrated to the city partly to seek education for her children, since the schools are better in the city.

It is difficult to make a comparison between the two groups on this point, because there is barely data available about the higher educated respondents on this issue. It is clear though that lower educated people do not always send their children to school. This could contribute to a vicious circle of poverty, since their children are less likely to get a good job that pays well, according to dr. Danh. Lower education can influence the income in the future. If parents are poor and have a low education level, they are less likely to send their children to school if they do not have enough money. These children have a disadvantage to children with a higher education, and it is more difficult to find a well paid job. This process could repeat itself in the following generations.

In sum, policy makers mainly base the government policies on scientific predictions and research. On the other hand, they try to combine this knowledge basis with involvement of local knowledge. But according to Krause et al. (2015), the Vietnamese government rarely considers conflicting appraisals of affected households. Perceptions of local stakeholders are mainly based on experiences. Each community has its own 'cultural model' of environmental changes depending on its tenure position, specific context and access to adaptation strategies. The governmental policies are more long-term compared to the local adaptation strategies. Local communities have limited resources to deal with environmental changes and their strategies are ad-hoc. But for both policy makers and rural residents in the Mekong delta it is difficult to adapt to such a global problem. The main government policy is the relocation program which decreases people's exposure to environmental changes, but increases their economic and social vulnerabilities. Furthermore, there are not many migrant's laws, and urban migrants lack access to essential services and basic rights.

According to my sample, higher educated urban migrants have a higher income, save more money and send more remittances to their relatives. They both have plans to go back to their home

town after saving enough money, but higher educated migrants are more likely to stay in the city because of their off-farm skills and higher income compared to the farming work in their home town. Lower educated migrants are less likely to send their children to school, because they earn less, so it is more difficult for them to generate sufficient income for their household.

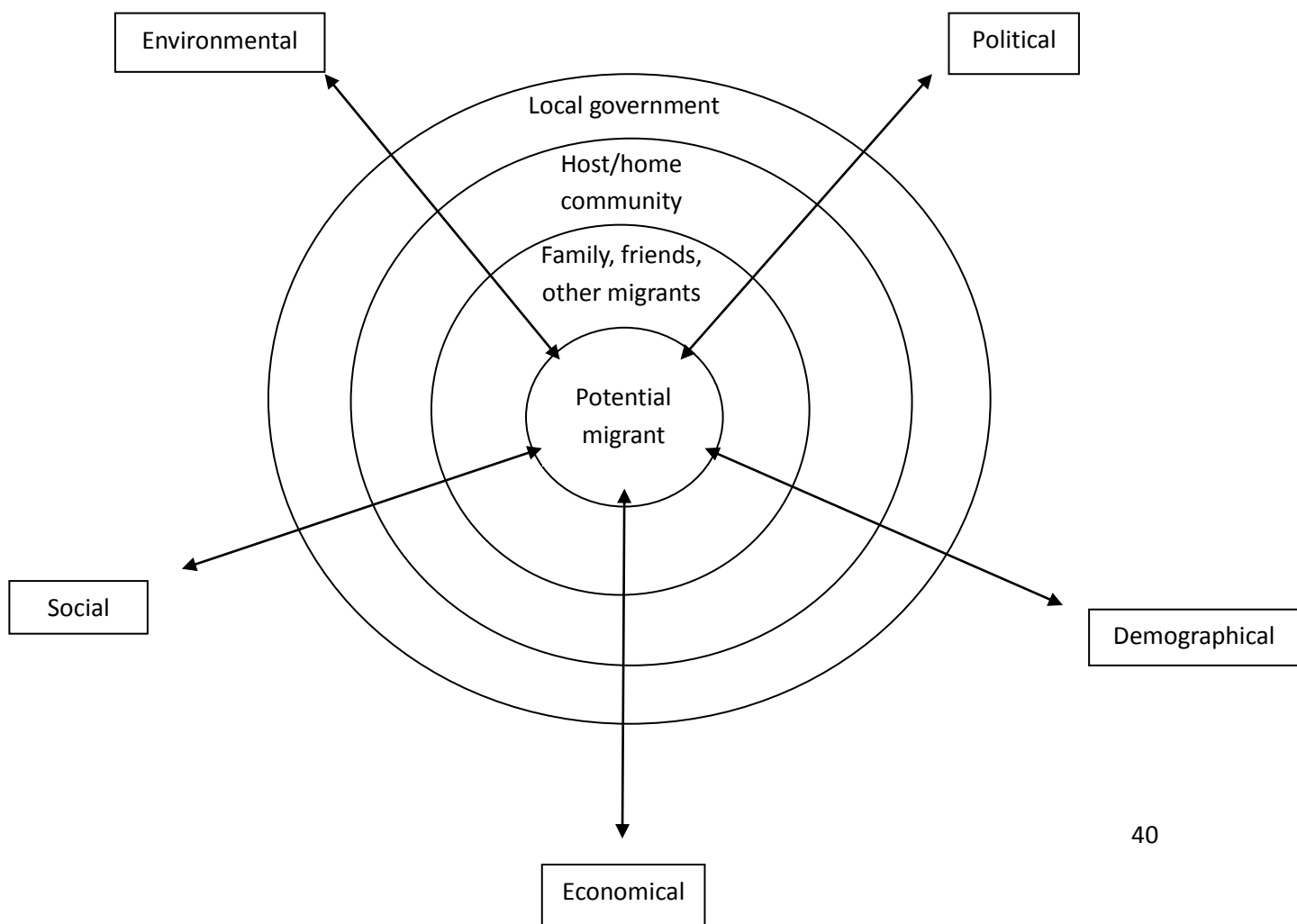
From this analysis we now turn to the discussion. In the discussion my empirical findings are linked with the theoretical data. The theoretical framework as described in chapter two is the leitmotiv of the chapter, combined with my own concept model of migration dynamics.

7. Discussion: linking empirical and theoretical data

In this chapter the empirical data is confronted with the state of art and a reflection on the research is provided as well. In what way does my empirical data support or conflict with the state of art? The first section of this discussion is my concept model of migration dynamics. Then the effects of environmental changes are described: the theoretical assumptions are compared with the empirical findings. This section is followed by the myths and perceptions of environmental changes and urban migration, in which climate-induced migration and the governmental relocation program is compared with the local adaptation strategies. The fourth section is about the drivers of migration. The last section is about the migration dynamics in which the role of social networking and the duration of migration are discussed.

7.1 Concept model migration dynamics

To make the link between the theoretical framework and my empirical findings more clear, I developed a model in which the theoretical and my empirical data are combined.



I used the onion model, inspired by Hofstede's (1991) cultural onion. Although Hofstede's model is more about culture as the 'software' of the mind, it also emphasizes the role of the social context in which people think, feel, decide and act. I use the onion model to make the migration dynamics visible, with inclusion of various social network levels and drivers of migration.

The onion refers to the social networking theory of Schapendonk (2015). The starting point of the model is the 'potential migrant'. This actor is placed in a context of migration, but he is called a *potential* migrant, because not all actors in a particular context with similar circumstances decide to migrate. The potential migrant is part of a social context, in which the first layer consists of the family, friends and other migrants. Decisions for or against migration are usually made in family settings (Tuan 2014), because migration of one relative influences the family's livelihood. It can increase the whole family's income with the input of remittances, while it can also decrease their income since there is a loss of income retrieved from the work in the rural areas. Friends are also involved in the migration decision. Next to that, other migrants can play a role as well. Migrants share information and experience in terms of looking for off-farm jobs and living in the urban areas for the migrants who follow (ibid). The second layer is the community: the potential migrant is connected to both the host and home community. Depending on one's demographical position but also on feelings of connectedness, people are part of a certain community or part of different communities at the same time. The third layer discussed in the local government, which is the political context in which people make decisions. The local government can either stimulate or discourage migration, which can influence people's decision.

The arrows that go through all the onion layers, refer to the theory of Black et al. (2011) about the drivers of migration. There are various drivers of migration interacting with the potential migrant. The drivers are political, demographical, environmental, social, and economical. Other than the model of Black suggests, I show that these drivers interact with the potential migrant. So the drivers do not work 'one-way' or 'push' people to migrate, but people interact with these drivers. For example, there are many ways to deal with changing environments: people adapt to them, they accept the changes but do not change their livelihoods, or they choose to migrate (temporarily or permanently). The agency of actors is at stake and is central in my model. These drivers have no direct influence on the potential migrant, because it goes through various layers. In that way, the model shows that actors make decisions in a social context through negotiating with family, friends, and other migrants, but also on a higher level with the community and local government.

My model goes against the theory of climate-induced migration. This theory views the environmental driver as the only driver of migration, and it frames environmental refugees as a security threat (Black 1998). The concept of environmental refugee overemphasizes the role of the environmental driver on migration. The causes of migration are extremely complex and context-specific (Hartmann 2010). Moreover, there is barely empirical evidence that environmental change is the root cause of population movements. In this model I show that there are many drivers of migration, and that the decision for or against migration is negotiated in a social context. Needless to say, this is a concept model and it is open for discussion and suggestions for improvement.

7.2 Environmental changes Mekong delta: theoretical assumptions and findings

One of the main concept in this thesis is environmental changes. In my concept model it is described as one driver of migration, interacting with potential migrants who are part of a social context. In this section, I look into the question what the effects of environmental changes in the Vietnamese Mekong delta are. My theoretical assumptions are compared with the research findings.

According to various research, there is an increase of floods in the Vietnamese Mekong delta due to environmental changes the last thirty years (Chun 2014, Chun 2015, Garschagen 2015, Le Danh and Mushtaq 2011, Marquart-Pyatt et al. 2014, Nguyen et al. 2012). This impacts the rice yield in a negative way which has an impact on the income of farmers. With this theoretical background in mind I expected to find that in the field as well. However, none of my respondents indicated flooding as an effect of the environmental changes. Even after I asked them specifically about their experiences with flooding or a changed flood regime, none of the respondents said that they experienced this or that it had an impact on their livelihoods or harvest. According to dr. Tuan, this is because there are three zones in the Mekong delta. The flooding area is in the North of the Mekong delta, close to the Cambodian border. There are some floods in the central area of the Mekong delta, and in the South there are barely any floods. The flooding regime is an important example of the environmental changes, so the lack of data about this environmental change in my sample could influence the validity of my research. However, my sample shed light on other interesting environmental changes in the Mekong delta and its impact on the residents.

Although the regions I conducted my fieldwork were not affected by flooding, they were prone to other environmental changes such as salinization and erosion. According to Chaudhry and Ruysschaert (2007), the Mekong delta has 1.77 million ha of salinized land, which accounts for 45 per cent of the whole delta. Next to that, floods cause erosion, because floods have a low discharge capacity which lead to erosion (Nguyen et al. 2012). My respondents mentioned similar effects of environmental changes: salinization, temperature rise, storms, drought, erosion, and changing water level. The last two to five years, the rural resident respondents claimed, the weather was also more extreme compared to the past. These environmental changes are not only 'natural' but can also be ascribed to human acts, for example due to deforestation, channelization, and cultivation. These human acts have an impact on the environment, and can worsen erosion, floods, and salinity intrusion.

Furthermore, according to the existing literature I could expect to find numerous landless people in the Mekong delta who are particularly vulnerable to the impact of environmental changes (Chun 2015, Chun 2014, Nguyen et al. 2012). However, my sample consisted of only one landless person. The other twelve respondents of rural residents owned between 0.2 and 4 hectares of agricultural land. The effects of environmental changes are more severe for landless people than landowners, because they have less options to cope with the changing environment. Land can be used as an asset to diversify livelihoods, so landowners are less vulnerable to environmental changes (Chun 2014, Tuan 2014). According to dr. Ha, farmers with land can survive and they use improved agricultural techniques. But landless farmers have not much to fall back on after a natural hazard. My survey mainly consisted of landowners, so the impact of environmental changes is probably less and their adaptation options are more extended compared to landless people.

7.3 Myths and perceptions of environmental changes and urban migration

This research investigates the various myths and perceptions of environmental changes and urban migration. Climate-induced migration is one of the myths that is discussed in this section. Part of this discussion is the role of myths in the governmental relocation program. Next to that, local perceptions of environmental changes, adaptation strategies and urban migration are analyzed. People deal with the environmental changes in various ways.

The myths: climate-induced migration and the relocation program

The environmental security discourse argues that climate change could trigger widespread political instability in poor regions and large refugee movements. According to Hartmann (2010), this rhetoric goes back to a powerful policy narrative that he calls the 'degradation narrative'. Environmental degradation is directly linked to migration, while neglecting the complex setting in which various drivers of migration are present. Despite the shortcomings of this simplified narrative, it is used in various policies for sustainable development. Environmental refugees were increasingly portrayed as a security threat, although empirical evidence for this issue was lacking (Black 1998). Using such narratives enables political actors to legitimize policies.

One of the Vietnamese government policies that is based on the environmental security discourse is the relocation program. Relocation in the context of natural hazards is strongly enforced by the Vietnamese government since the historical floods in 2000 (Birkmann et al. 2013). This measure is used to reduce the exposure to flooding and sea level rise, and it plays a significant role in climate-induced migration (UNDP 2014). During the rainy season, from July until December, the flooded areas account for around 53.3 per cent of the delta's natural area, and half of its population is affected (Birkmann et al. 2013). Between 2001-2005 approximately one million people were relocated to safer areas, particularly the poor who were settled in flood-prone areas. Dr. Vinh stated that the program is not focused on the benefits of the farmers, but only on the benefits of policy makers because it opens opportunities for input of foreign aid money and it is a way to keep track of relocated people. One million people were relocated in the name of security or safety, but it simultaneously seems to serve the interests of national security actors. This is in line with Hartmann's assumption that the use of crisis narratives serve the interests of national security actors.

Tuan (2014) investigated the impact of the relocation programs in the Mekong delta and stated that it has distinct impacts on the various socio-economic groups in the Mekong delta, because they use different coping measures and have differential access to livelihood assets. It depends for example on the level of income, education, and the social position which options people have to cope with environmental changes. Especially the poor are at risk, since they have a low level of access to livelihood assets for their flood response strategies. Their livelihood is not sustainable, because there are very few economic activities and they rely on government support. According to Chun (2014), relocation programs have been able to provide households with durable housing, but they often do so while shifting vulnerabilities, rather than ameliorating overall vulnerability. Due to a long distance from the relocated people's agricultural land, people could not access their land anymore. According to Chun's research, relocated people became more dependent on government support, because they were not able to generate sufficient income. Also Garschagen (2015) pointed out the increase of vulnerabilities due to the relocation program. Despite an overall reduction in flood exposure, relocated households faced disruptive effects on their income and social networks. There is insufficient compensation for these people, because the support does not cover the expenses of a new land and house in the relocation area.

My sample does not include any relocated people, so I cannot analyze the local perceptions of the relocation program. Barely any respondent was even aware of the program, although one million people on a total population of seventeen million were already relocated. I expected to speak with at least a few relocated people, but it was more difficult than expected to get in contact with them. However, I do have the data from the policy maker respondents from Ca Mau province about the relocation program. The policy makers were very positive about the program, but they did acknowledge its limitations. They mentioned that the livelihood activities and income generating

opportunities were limited in the relocation areas. Moreover, most available jobs are in the service sector. Relocated people are familiar with farming, but their knowledge and experience with jobs in the service sector is little. Other research (Danh 2007, Danh and Mushtaq 2011, Hoi 2005, Tuan 2014) indicated that relocated households were confronted with a loss in income sources, socio-economic shocks and stresses such as a decrease in off-farm income, social violence and debts because they had to buy houses on credit.

According to the interviewed policy makers, almost all people are willing to relocate because the living conditions are better than in their own home town. However, Birkmann et al. (2013) shows that the willingness to relocate depends on the availability of homestead-based benefits. Landless people rely on off-farm activities for their income, but this became more difficult since the flood-related resources were declining. Consequently, almost all poor people accepted relocation while others wanted to stay and live with the floods given the flood-related and homestead-based benefits (ibid). Fishing is an example of flood-related benefits, and it is used as a livelihood opportunity. Dr. Ha said that people do not want to move to the resettlement zone because it is far away from the coast where they can grow their crops. Next to that, in the resettlement zones farmers only get a small piece of land, which is not enough to produce their crops. The local government draws a direct link between the willingness to relocate and better living conditions, although the perceptions of local stakeholders is not as straightforward. These perceptions are discussed in the following section.

The perceptions: resilience and resignation

Resilience is a central concept in discussions about adaptation strategies. It implies the ability of a social system to cope with extreme social, economic or environmental shocks (Methmann and Oels 2015). According to Methmann and Oels, the climate-induced migration debate shifted the notion of resilience from maintenance to adaptation. By this they mean that resilience is not just about the degree of disturbance a system can endure and still return to its previous equilibrium, but that it is shifting towards an understanding that systems adapt to changing environments rather than remaining intact. In the face of environmental changes, the previous equilibrium does not need to be maintained, but people change and adapt to those external changes. Resilience accepts vulnerability and seeks to remedy and even exploit it after disaster have taken place (ibid).

In my model, potential migrants are not portrayed as 'victims' of environmental changes, but as actors who consciously make decisions within their social networks. This is in line with the adaptation resilience thinking, as it views environmental change-affected people as actively involved in adapting to these changes. As a response to the environmental changes, people use various livelihood strategies to adapt to these changes. There are different strategies for the rich and poor, because their level of access to adaptation measures differs, according to dr. Ha. Adaptation strategies vary from off-farm activities to loans from a bank and migration. It is difficult to determine whether these changes in livelihood strategies are due to environmental changes, because it interplays with other, mostly economic drivers of livelihood diversification and migration (Nguyen et al. 2012). Most respondents are involved in off-farm activities in order not to be solely dependent on agricultural output. The variability of income in rural areas due to environmental changes makes farmers who are dependent on their harvest very vulnerable. Some of my respondents cope with environmental changes by saving water, relocating their house, applying for a loan from a bank or via a community saving scheme, migrating to the city, education, and raising the foundation of houses.

Strikingly, most of the respondents did not change their livelihood strategy after the environmental changes. They just lived with the conditions they faced, and they found it difficult to

mention short- or long-term responses to the changing environment. This can be explained by the fact that people have a limited sense of agency and that they do not see the point of changing or do not know who to change their livelihood strategy. According to dr. Vinh, poor people must work for their food and they do not have time to think about issues such as environmental changes and adaptation strategies. According to Krause et al. (2015), people would only change if they perceive environmental changes as a threat and judge their capacity to adapt to it positively. Decision-making in adaptation strategies and perceptions of environmental changes interventions depend highly on individual risk appraisals and the specific risk context at place (ibid). On the other hand, urban migration does happen a lot, so it cannot be true that people are just resigned about their situation and do not cope with the changing environment. It is key to understand people's risk position in order to grasp one's decision for or against adaptation to environmental changes (ibid). Adaptation resilience does play a role in environmental changes, but people are not 'exploiting their vulnerabilities' as explained by Methmann and Oels (2015). People do adapt to environmental changes and are resilient in that sense, but in a different way than explained by the adaptation resilience.

7.4 The arrows: drivers of migration

The arrows in my concept model refer to the drivers of migration. In this section the drivers are discussed and viewed as interconnected to the social context in which migration takes place. According to the existing literature (Black et al. 2011, Foresight 2011, and Jäger et al. 2009), there are various drivers of migration, and environmental factors tend to influence migration indirectly, mostly through economic drivers. Black et al's model of multiple drivers of migration is used and supported by the existing literature (Nguyen et al. 2012, UNDP 2014). My respondents indicated economic, environmental, and social factors that influenced their decision to migrate. My concept model emphasizes the role of social networks in the drivers of migration. Drivers of migration work two ways: drivers do not only influence people but also cause responses from the affected people. The drivers of migration affect the various layers of social networks, and each layer reacts to this in different ways.

The economic driver is perceived as the main driver of migration by my respondents. This is in line with other research by Chun (2014), IPCC (2014), and Nguyen et al. (2012) that states that a lack of income, unemployment and unsatisfactory livelihoods are the most important reasons for people to migrate. Most respondents said that they think it is more difficult to find a job in the rural areas compared to the city where there are more employment opportunities and higher salary rates. However, Todaro (1969) suggested that not the actual wages drive migration, but rather the *expected* wages. People expect to earn a lot, so they can save money and return back home. But according to my sample, the income is lower or the living costs are higher than expected. Due to a lack of savings, most migrants have no financial or other concrete plan for their return. There is a strong connection between the informal sector and urban poverty (Cling et al. 2011). According to Cling et al. (2011) and my sample, most migrants work in the informal sector, for example in manufacturing, constructing, trade, and service. In these sectors there is a lack of social insurances and there are no public policies for the informal sector. Migrants hope to find a stable job in the city in which they are guaranteed to work in the long term and earn a reasonable income rather than a seasonally high income at their home town.

Table 4 shows that the reported income of urban migrants in my sample is indeed higher compared to the salaries of rural residents in the Mekong delta. Most rural resident respondents

reported that they earn between 0-200 euro per month, while most urban migrant respondents said they make between 100-300+ euro per month. None of the urban migrant respondents make less than 100 euro per month, while one third of the rural resident respondents earn between 0 and 100 euro on a monthly basis.

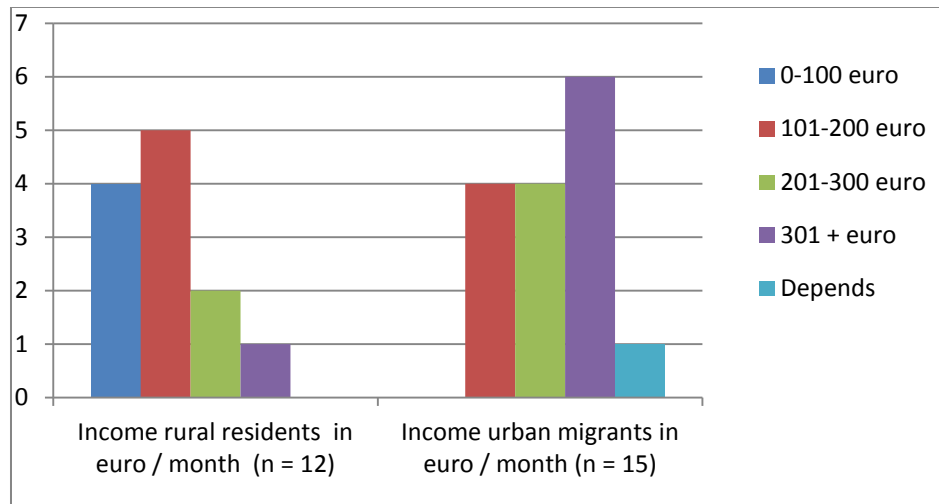


Table 4: Level of income rural residents and urban migrants

Another economic factor is ownership of housing and agricultural land are relevant factors of permanent migration (Chun and Sang 2012). If people own land they are less likely to migrate permanently, because they would return to their home and land regularly. One of the main reasons for my respondents to migrate to the city was the lack of sufficient agricultural land, but none of them said that this was a reason to stay permanently in the city.

The social driver also plays a role in migration, because people seek better education and have to take care of the family. Mainly young people migrate to the city (Tuan 2014, UNDP 2014), which is also shown in my data. As breadwinners of the households they are responsible for the family and they have to take care of them, for example by sending remittances (Tuan 2014). This is also evidence for the social networking theory of Schapendonk (2015), that is about the linkages between migrants and their home community. Due to migration these linkages change: some ties are lost while other linkages are created. The linkages with the home community are strong, according to the urban migrant respondents. Education is another social driver of migration. According to some of the expert respondents, the educational system in the city is much better compared to the rural areas, and that is a reason for people to migrate. Families that can afford to send their children to a high school or university in the city hope that their children get better jobs and can support the family with their salaries in a later stage. A few of my respondents of the urban migrants migrated for educational reasons for themselves or for their children.

Environmental change can affect migration directly through hazards or disasters, but also indirectly through economic drivers by changing livelihoods or through political drivers by affecting conflicts over resources (Black et al. 2011). Most respondents said that it was difficult to generate enough income in their home town partly due to changing weather patterns, salinization and erosion. Since most of my respondents come from families that depend on agriculture for their livelihood, the changing weather patterns have a huge impact. A similar result is shown in the research by Nguyen et al. (2012) which shows that environmental factors tend to influence migration indirectly, mostly through economic drivers. Most of the experts said that there is an indirect link between

environmental changes and migration, because the income generated by agricultural activities are decreasing thus people seek a higher income in the city. Dr. Vinh mentioned the threshold of migration: people can benefit from flooding for example, but sometimes it damages their land. When does it become too much for the people and do they decide to migrate?

Black et al.'s (2011) model also includes political and demographic drivers of migration. However, these drivers were not mentioned by my respondents. In fact, these factors would rather keep people in their home town. Urban migrant respondents said they feel more safe in their home town, and they prefer the population size and density in the rural areas as well. This does not necessarily mean political and demographic drives do not play a role at all in the migration dynamics in Vietnam, but it does not become clear in my sample.

The main point of using this model is to gain a broader understanding of the drivers of migration, and to support my data by showing that there is no direct link between environmental changes and migration. However, it does not show how the drivers interact with the potential migrants. In my concept model, I view potential migrants as actors who respond to the external changes on a political, demographical, social, economical, and environmental level. People choose between their options: accept the costs and do nothing, adapt to the external changes, or migrate. Black's model lacks an explanation of the role of social networks in the drivers of migration. People choose between migration or staying, according to his model, while other options are not considered and the negotiation of these options are not included in the model. It does not provide insights in the ways migration works and the local perceptions on migration. In the following section, the migration dynamics are discussed, with a focus on social networking.

7.5 The onion: social networking in migration dynamics

The onion is the basis of my concept model. It is a way to understand the role of the potential migrant within a social context interacting with various drivers of migration. Social networking in migration dynamics is the central topic in this section.

The framework of Black et al. (2011) is limited in the sense that it focuses on the push and pull factors of migration. Although it acknowledges the multicausality of migration and does not draw a direct link between environmental changes and migration (as the environmental security discourse does), it still lacks a broader understanding of the social context in which migration takes place. Schapendonk (2015) criticizes economic explanations of migration and emphasizes the role of social networks. At the same time he also criticizes the static conceptualization of networks by emphasizing the changeability of networks.

The social context in which migration decisions are made are central in my concept model. Hartmann (2010) also acknowledged the importance of the social network in migration dynamics. He states that the existence and effectiveness of adaptation strategies to cope with environmental changes depends on (1) pre-existing social relations, (2) the capacity of a community to cope with environmental changes, and (3) the local government policies for environmental change-affected people. These three aspects correspond with the 'layers' in my concept model, namely: the first layer of family, friends and other migrants, the second layer consisting of the host and home community, and the third layer of the local community. Hartmann states that, first of all, existing social networks in the city can stimulate people to migrate. This also became clear from my sample: about half of my respondents followed other migrants as part of their social networking strategy. Secondly, the capacity of a community depends on their risk perceptions, risk positions and access to adaptation strategies. perceptions of environmental changes-affected people are diverse, because they have

different risk positions and access to adaptation strategies. Thirdly, according to my sample, the local government encourages rural people to migrate to the city by linking them to recruitment agencies, so they can find a job in HCM City. But on the other hand, they try to keep rural people within the rural areas, for example by implementing the relocation program.

The existing literature shows the importance of social networking in migration dynamics (Dang 2015, Garschagen 2015, Koubi et al. 2015, Nguyen et al. 2012). According to my data, the networks between migrants and their family are quite well maintained. These networks are based on phone calls, visits and remittances. It depends on the migrant how often (s)he can visit, because the home town may be far away or the costs of traveling can be too high. The amount of money sent to the family depends on the level of income of the migrants. There is an increasing amount of rural people partly depending on remittances from migrated family members in the city (Garschagen 2015, Nguyen et al. 2012). Especially poor and landless households use remittances to buy food and pay back loans (Nguyen et al. 2012). Not all respondents are not able to send money, because they do not make enough to support their family (ibid). Networks and social capital change constantly, because they are formed and maintained in interaction between people (Schapendonk 2015).

Black (1998) states that migration from rural areas is not a linear phenomenon or a rejection of rural livelihood, but is instead a vital part of sustaining them. This is supported by my empirical data, because most respondents are very much focused on their future lives in their home town and all hope to go back after saving enough money. They do not reject the rural livelihood, but instead maintain their social networks with relatives in their home town via regular phone calls, visits, and remittances. People see themselves as temporary migrants, according to dr. Binh and my sample. Most respondents did not have a concrete plan to return, so there is much uncertainty about moving back to their home town. At first arrival in the city, urban migrants assume they will stay for a few years and return after saving enough money. But in practice, according to dr. Danh, very few urban migrants go back to their home town. However, they do put effort in maintaining their social network in their home town, because they hope they will return one day. One respondent moves back and forth between the city and their home town, because he can make more money on the farm during harvest time while the city's employment opportunities offer a more stable income during the rest of the year. According to Tuan (2014), the income of seasonal migrants is low and unstable; therefore, they return seasonally to their home town for a higher income. Dr. Vinh said that people in coastal areas experience drought during the dry season, so they migrate to the city only for a few months and then return to their home town.

In migration processes, networks change: new ties may emerge while other ties are lost. New interactions between people create new networks (ibid). According to Koubi et al. (2015), people are more likely to migrate if a family member has already migrated. In my sample, about half of the respondents knew someone who already migrated to the city. Following other migrants is part of the social networking strategy. Especially in a developing economy such as Vietnam, with poorly functioning markets, social networks are particularly important for migrants (Dang 2015). Between migrants there emerges a new way of social networking. According to my respondents, people look for jobs for each other, lend money or take care of the sick. This is in line with research from Tuan (2014), who states that migrants usually build up labor groups as informal social networks, which helps migrants to look for income-earning activities and assist each other to reduce the daily cost of living. They meet each other at work or in school, and there is an annual celebration in HCM City for migrants from the various regions in the Mekong delta. But not all respondents are successful in connecting to other migrants, because they do not know other people from the Mekong delta or

because they find it difficult to grow relationships with other migrants. It takes effort to maintain networks or to create new ones, and sometimes migrants may even be entirely cut off from their social connections (Schapendonk 2015). Migrants can be vulnerable without the protection of their families and a lack of social networks (UNDP 2014).

Social networking between migrants and the host community seems more difficult for most respondents. My respondents know people from HCM City, but they do not have a deeper relationship with them. It may be that people from HCM City are not as open for migrants, and that it is more difficult to connect with them. The level of connectivity does not only depend on the migrant's agency, but also on the intentions and efforts of those who they try to connect with (Schapendonk 2015). One respondent said he thought that people from HCM City are too rich and have a different level of life. This indicates that power relations can play a role in networks (ibid).

The drivers of migration interact with all the layers as explained above. The potential migrant negotiates about migration, and interacts with his family, friends and other migrants, but also with the host and home community, as well as with the local government. All these layers play a role in the migration decision. After comparing the main theoretical concepts and assumptions with my empirical data, I will now turn to the reflection on my research.

7.6 Reflection on research

My research contributes to broader research on the various myths and perceptions of environmental changes and urban migration in the Vietnamese Mekong delta. Due to the fact that this research only took two months and I spoke to fifty stakeholders in the Mekong delta and HCM City, there cannot be drawn general conclusions of the overall situation in Vietnam or the Mekong delta. But it does provide an insight in the myths and perceptions of local stakeholders and policy makers.

I went into the field with certain (theoretical) expectations, and this influenced the outcomes of the interviews as well. I expected people not to be aware of environmental changes that much, but it turned out that most of the respondents could come up with examples of environmental changes or at least changing weather patterns. My interpretation of environmental changes is probably different from the local stakeholders, because I interpret it as major environmental changes over at least the last 30 years. These changes include increased rainfall, less predictable weather patterns, and the occurrence of extreme weather events. Environmental changes are not only natural, but is influenced by human interference for example through deforestation, channelization, and cultivation. Sometimes the respondents came up with environmental changes examples themselves, and they mentioned salinization, lack of rain and erosion as the most influential effects of environmental changes. In case people did not know what I meant by environmental changes, I gave the examples and asked them if they experienced these environmental changes. This already pushed them in a certain direction, so in that way it influenced my data.

During interviews people give socially desired answers sometimes and people have the tendency to fill their mental 'gaps' or the contradictions to make their story consistent. For example when I asked rural residents whether they knew about environmental changes, and they replied they did. My following question was in what way they experienced it, but then it remained silent. Some respondents explained they did not know how they experienced it or how they dealt with it. These answers gave me information about their way of thinking, but it was frustrating at the same time. This is a methodological limitation which is difficult to prevent.

Working with an interpreter was harder than expected. I had hoped that the level of English would be higher, but oftentimes my interpreters did not understand what I meant and I had to repeat

myself a lot. The interpreter had the tendency to give their summary of the story of the respondents, so in that way I lost information during the interviews. I asked my interpreters to be as precise as possible, but it was difficult to check whether they translated everything well. One of the interpreters tried to answer my interview questions instead of asking the respondents about their perceptions. Sometimes I thought I understood the translation, but after double checking it turned out that the respondent meant something different. I had to find a balance in double checking, because I did not want to look too suspicious about his translation.

During the field work, I changed some of my interview questions. The interview questions were more tailored to the specific situation and detailed so people understood better what I meant with concepts such as 'environmental changes' or 'drivers of migration'. Questions about people's experiences with environmental changes were more detailed (e.g. 'did you experience any storms the last five years?' instead of 'in what way did you experience environmental changes lately?'), as well as the drivers of migration ('was it difficult to make enough money in your home town?' instead of 'why did you migrate to the city?'). In the second half of my interviews with urban migrants I included a comparison table in the interviews in order to understand what they preferred about their life in the city compared to the life in their home town.

Initially I was planning to do the interviews in Long An province, because this area was recommended by dr. Tin from Can Tho University. During my interviews with a few experts of HCM University, I got the suggestion to conduct my fieldwork in Ben Tre province because the effects of environmental changes are more visible compared to Long An province. This is due to the fact that Ben Tre province is situated at the coast in contrast to Long An province. My research also took place in Ca Mau province, because the effects of environmental changes are very visible in this province which is surrounded by the ocean, dr. Tin had good contacts with the local government on-site, and he invited me to join his research group in Ca Mau. However, these areas are not prone to flooding, which is an important example of environmental change in the Vietnamese Mekong delta. My sample consisted of people affected by salinization and erosion rather than flooding, so that limited my data in the sense that I could not interview flooding-affected people.

In sum, this chapter provides a discussion about the empirical and theoretical data. Based on the concept model of migration dynamics the link between the theories and empirical findings is made. In this model, the potential migrant is part of a social network consisting of various layers in which he negotiates about migration. He interacts with the various drivers of migration, which are also connected to the other layers. Environmental changes such as salinization, erosion, and rainfall variability impact rural residents, especially those who rely on their agricultural output. People deal with environmental changes in various ways: accept the costs and do nothing, adapt to the changes, or migrate. This thesis goes against the idea that there is a direct link between environmental changes and migration, as the environmental security discourse emphasizes. The governmental relocation program is based on this discourse: although it is used to reduce the exposure to environmental changes, it is mainly focused on the benefits of the policy makers rather than the farmers. The vulnerabilities of relocated people increased, and people rely more on governmental support. Resilience and resignation are key words in understanding people's ways to adapt to environmental changes. On the one hand, people are actively involved in adapting to environmental changes, but on the other hand my sample shows that most respondents are resigned about their situation and they just live with the conditions they face.

The drivers of migration interact with the potential migrant through the layers of social

networking. Economic, environmental, and social factors are the most mentioned drivers of migration. People expect to earn and save a lot of money, so they can return to their home town. Although the general income in the city is higher, it seems to be very difficult for urban migrants to save enough money and make concrete plans for their return. Education and taking care of the family are examples of the social driver of migration. Environmental changes can have a direct and indirect influence on migration. Within their social network of family, friends, and other migrants, potential migrants negotiate about their migration. Other layers of social networks consist of the host and home community as well as the local government, which all interact with the drivers of migration. In migration dynamics, some ties are lost while new ties are created.

In the research reflection I reflected on my theoretical assumptions, working with an interpreter, the limitations of my research, and the choice of my research field. The discussion part is followed by the conclusion, which is the final part of this MSc thesis.

8. Conclusion

The conclusion presents the broader insights in the myths and perceptions on the link between environmental changes and urban migration. It provides some theoretical and empirical insights in the research question: *‘What are the various myths and perceptions of the link between environmental changes and urban migration in the Vietnamese Mekong delta, and in what way do they conflict or support each other?’*.

One of the main myths in the scientific debates about the link between environmental changes and urban migration is the climate-induced migration. Inspired by the environmental security discourse, this theory frames environmental changes as a threat to (inter)national security, and links it directly to massive displacement. My thesis goes against this theory, because there are various drivers of migration and people use multiple strategies to adapt to environmental changes. Myths such as the climate-induced migration oversimplifies human-environment interactions, and they can have real consequences if political decisions are motivated by them. An example of that in Vietnam is the relocation program, which aims to reduce the exposure to environmental changes but in fact increases people’s vulnerabilities and dependency on governmental support.

Perceptions of local stakeholders, the rural residents and urban migrants, of environmental changes and urban migration vary greatly. It depends on their individual risk perception, but also on their household’s and community’s capacity how they cope with environmental changes. They can accept the costs and do nothing, stay and adapt to the environmental changes, or migrate. From my sample it seems that most people are resigned about their situation and the changing environment. According to the respondents, they do not have time to think about issues such as environmental change. On the other hand, other respondents do adapt to the environmental changes and are resilient in that sense. People would only change if they perceive environmental changes as a threat and judge their capacity to adapt to it positively.

In my concept model, I show that people are part of a social network of family, community, and a local government. They negotiate with the different layers of their social network about the adaptation strategies. The main actor in my model is the potential migrant, who decides about migration in negotiation with his family. Existing networks in the city can stimulate people to migrate, because migration costs are lower. Migrants look for jobs and houses for each other. Migration is not

a rejection of rural livelihood, but instead a way to sustain it. Most respondents want to return to their home town after saving enough money. However, this seems very difficult for most urban migrants due to the high living costs. Networks constantly change in migration dynamics, and without social networks in the city urban migrants are very vulnerable. The sending community stimulates people to migrate by linking them to recruitment agencies in the city, but on the other hand they discourage them by keeping them in the rural areas, for example through the relocation program.

All these layers of social networks are connected to various drivers of migration. People interact with economical, political, demographical, social, and environmental changes by responding in different ways. One of the adaptation strategies is migration. The main driver of migration is the economic factor, because the general salaries and employment opportunities in the city are higher compared to the rural areas. But at the same time there is a lot of urban poverty, because of higher living costs and urban migrants mostly work in informal sectors without any social insurance. The social driver plays a role in migration, because people seek better education and have to take care of their family. Environmental drivers tend to influence migration indirectly, through economic factors. For example, farmers who lose their harvest due to salinization or rainfall variability seek off-farm jobs to generate another source of income. These drivers of migration are negotiated within the social networks, and have not directly lead to migration of individuals. The main point of my concept model and my thesis in general is that there is no direct link between environmental changes and urban migration, because people experience environmental changes in different ways and they negotiate about the various possible adaptation strategies on a household, community, and local government level.

Literature list

- Adger, W.N. (2000). Social and ecological resilience: Are they related? *Progress in Human Geography*: vol. 24, no. 3, p. 347-364.
- Baldwin, A. (2012). Orientalising environmental citizenship: Climate change, migration and the potentiality of race. *Citizenship Studies*: vol. 16, no. 5-6, p. 625-640.
- Bettini, E. (1965). Foreign capital and migration. *International Migration Digest*: vol. 2, no. 1, p. 93-96.
- Bettini, G. and E. Andersson (2014). Sand waves and human tides: Exploring environmental myths on desertification and climate-induced migration. *Journal of Environment and Development*: vol. 23, no. 1, p. 160-185.
- Birkmann, J., M. Garschagen, N. Fernando, V.V. Tuan, A. Oliver-Smith, and S. Hettige (2013). Measuring vulnerability to natural hazards: Towards disaster resilient societies. Second edition. Tokyo: United Nations University Press.
- Black, R. (1998). Refugees, environment and development. New York: Longman Publishers.
- Black, R., W.N. Adger, N.W. Arnell, S. Dercon, A. Geddes, and D.S.G. Thomas (2011). The effect of environmental change on human migration. *Global Environmental Change*: vol. 21.
- Brand, F.S. and K. Jax (2007). Focusing the meaning(s) of resilience: Resilience as a descriptive concept and a boundary object. *Ecology and Society*: vol. 12, no. 1.
- Bryant, R. (1998). Power, knowledge and political ecology in the third world: a review. *Progress in Physical Geography*: vol. 22, no. 1.
- Chaudhry, P. and G. Ruyschaert (2007). Climate change and human development in Viet Nam. Human Development Report Office Occasional Paper 2007/46. New York: United Nations Development Programme.
- Chun, J.M. (2015). Planned relocations in the Mekong delta: A successful model for climate change adaptation, a cautionary tale, or both? Washington: Brookings Institution.
- Chun, J.M. (2014). Livelihoods under stress: Critical assets and mobility outcomes in the Mekong delta, Vietnam. *Policy Brief Series*: vol. 1, no. 1.
- Chun, J. and L.T. Sang (2012). Research and Policy Dialogue on climate change, migration and resettlement in Vietnam. Final Report. United Nations Vietnam, Hanoi.
- Cling, J.P., M. Razafindrakoto, and F. Roubaud (2011). The informal economy in Viet Nam. Geneva: International Labour Organization.
- Crona, B., A. Wutich, A. Brewis, and M. Gartin (2011). Perceptions of climate change: Linking local and global perceptions through a cultural knowledge approach. *Climate change*: vol. 119, p. 519-531.
- Dang, D.A. (2015). Social networks and employment performances: Evidence from rural-urban migration in Vietnam. MPRA paper no. 67479. Retrieved from https://mpra.ub.uni-muenchen.de/67479/1/MPRA_paper_67479.pdf
- Danh, V.T. (2007). Evaluation of the Living with Flood Policy: the case of the resettlement program in the Vietnamese Mekong delta. Economy and Environment program for Southeast Asia (EEPSEA).
- Danh, V.T. and S. Mushtaq (2011). *Living with floods: An evaluation of the resettlement program of the Mekong delta in Vietnam*. In: Environmental Change and agricultural sustainability in the Mekong delta. Advances in Global Change Research: vol. 45, p. 181-204.

- Dao, P. and N.T.L. Chi (2015). Global climate change and solutions for urban sustainability of Ho Chi Minh City, Vietnam. *Geo-science Engineering*: vol. 61, no. 1, p. 26-31.
- Deary, I.J., M.D. Taylor, C.L. Hart, V. Wilson, G.D. Smith, D. Blane, and J.M. Starr (2005). Intergenerational social mobility and mid-life status attainment: Influences of childhood intelligence, childhood social factors and education. *Intelligence*: vol. 33, no. 5, p. 455-472.
- Foresight: Migration and Global Environmental Change (2011). *Final Project Report*. London: The Government Office for Science.
- Forsyth, T. (2003). *Critical political ecology: the politics of environmental science*. London: Routledge.
- Fine, A. (2016). Scientific realism and antirealism. *Routledge Encyclopaedia of Philosophy*. Retrieved from <https://www.rep.routledge.com/articles/scientific-realism-and-antirealism>
- Garschagen, M. (2015). Risky Change? Vietnam's urban flood risk governance between climate dynamics and transformation. *Pacific Affairs*: vol. 88, no. 3, p. 599-621.
- Gemenne, F. and J. Blocher (2016). How can migration support adaptation? Different options to test the migration-adaptation nexus. MECLEP Working Paper Series.
- Government of Vietnam (2011). National strategy on climate change: Period 2011-2020. Retrieved from <http://www.chinhphu.vn/portal/page/portal/English/strategies/strategiesdetails?categoryId=30&articleId=10051283>
- Hartmann, B. (2011). Rethinking climate refugees and climate conflict: Rhetoric, reality and the politics of policy discourse. *Journal of International Development*: vol. 22, p. 233-246.
- Hofstede, G.H. (1991). *Cultures and Organizations: Software of the minde*. London: New McGraw-Hill.
- Hoi, T.N. (2005). *Dyke systems in the inundated areas in the Mekong delta*. Ho Chi Minh City: Agricultural Publishing House.
- Hunter, L.M. (2005). Migration and environmental hazards. *Population and Environment*: vol. 26, no. 4, p. 273-302.
- International Federation of Red Cross and Red Crescent Societies (2016). In Pictures: El Nino in Viet Nam. Retrieved from <http://www.ifrc.org/en/news-and-media/news-stories/asia-pacific/vietnam/in-pictures---el-nino-in-viet-nam/>
- Intergovernmental Panel on Climate Change (2014). 'Human security'. *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. Cambridge and New York: Cambridge University Press.
- International Organization for Migration (2007). *Migration and the Environment*. Ninety Fourth Session, 1 November, IOM, Geneva, p. 1-2.
- Jäger, J., J. Fröhmann, and S. Grünberger (2009). Environmental change and forced migration scenarios (EACH-FOR) final synthesis report.
- Junge, V., V.R. Diez, and L. Schatzl (2015) Determinants and consequences of internal return migration in Thailand and Vietnam. *World Development*: vol. 71, p. 94-106
- Koubi, V., G. Spilker, L. Schaffer and T. Bernauer (2015). Environmental stressors and migration: Evidence from Vietnam. *World Development*: vol. 79, p. 197-210.
- Krause, D., M. Schwab, and J. Birkman (2015). An actor-oriented and context-specific framework for evaluating climate change adaptation. In D. Bours, C. McGinn, & P. Pringle (Eds.), *Monitoring and evaluation of climate change adaptation: A review of the landscape*. *New Directions for Evaluation*: vol. 147, p. 37-48.

- Larsen, J. and J. Urry (2010) Networking in mobile societies. In: *Mobility and Place. Enacting Northern European Peripheries*, Baerenholdt JO, Granas B (eds). Ashgate Hampshire, p. 89-101.
- Lilleor, H.B. and K. van den Broeck (2011). Economic drivers of migration and climate change in LDCs. *Global Environmental Change*: vol. 21, no. 1, p. S70-S81.
- Marquart-Pyatt, S.T., A.M. McCright, T. Dietz, and R.E. Dunlap (2014). Politics eclipses climate extremes from climate change perceptions. *Global Environmental Change*: vol. 29, p. 246-257.
- Mekong tours (2016). Map of the South. Retrieved from http://www.mekongdeltatours.com/Map_Cantho_VinhLong_MyTho_ChauDoc_LongXuyen_SocTrang_HaTien_VungTau_MekongDeltaTours_dot_com.htm
- Methmann, C. and A. Oels (2015). From 'fearing' to 'empowering' climate refugees: Governing climate-induced migration in the name of resilience. *Security Dialogue*: vol. 46, no. 1, p. 51-68.
- Neumann, K., D. Sietz, H. Hilderink, P. Janssen, M. Kok, and H. van Dijk (2015). Environmental drivers of human migration in drylands: A spatial picture. *Applied Geography*: vol. 56, p. 116-126.
- Nguyen, L.D., K. Raabe, and U. Grote (2015). Rural-urban migration, Household vulnerability, and welfare in Vietnam. *World Development*: vol. 71, p. 79-93.
- Nguyen, V.K., C.T. Nguyen, and K. van der Geest (2012). "Where the Rain Falls" projects. Case study: Vietnam. Report no. 8. Bonn: United Nations University.
- Pathirage, J. and M. Collyer (2011). Capitalizing social networks: Sri Lankan migration to Italy. *Ethnography*: vol. 12, p. 315-333.
- Piguet, E. (2015). Migration: The drivers of human migration. *Nature climate change*: vol. 2, p. 400-401.
- Portes, A. (1997). Immigration theory for a new century: some problems and opportunities. *International Migration Review*: vol. 32, p. 799-825.
- Schapendonk, J. (2014). Following migrant trajectories: the im/mobility of sub-Saharan Africans en route to the European Union. *Annals of the Association of American Geographers*: vol. 104, no. 2.
- Schapendonk, J. (2015). What if networks move? Dynamic social networking in the context of African migration to Europe. *Population, Space and Place*: vol. 21.
- Seto, K.C. (2011). Exploring the dynamics of migration to mega-delta cities in Asia and Africa: Contemporary drivers and future scenarios. *Migration and Global Environmental Change*: vol. 21, no. 1, p. 94-107.
- Stark, O. and D.E. Bloom (1985). The new economics of labor migration. *The American Economic Review*: vol. 75, no. 2, p. 173-178.
- Stewart, M.A. and P.A. Coclanis (2011). Environmental Change and agricultural sustainability in the Mekong delta. *Advances in Global Change Research*, vol. 45, Houten: Springer.
- Storch, H. and N.K. Downes (2011). A scenario-based approach to assess Ho Chi Minh City's urban development strategies against the impact of climate change. *Cities*: vol. 28, p. 517-526.
- Todaro, M.P. (1969). A model of labor migration and urban unemployment in less developed countries. *The American Economic Review*: vol. 59, no. 1, p. 138-148.
- Trombetta, M.J. (2008). Environmental security and climate change: Analysing the discourse. *Cambridge Review of International Affairs*: vol. 21, no. 4, p. 585-602.
- Tuan, V.V. (2014). Vulnerability assessment of different socio-economic groups to floods in the rural Mekong delta of Vietnam. Bonn: United Nations University.

- United Nations Development Programme (2014). Migration, resettlement and climate change in Viet Nam: Reducing exposure and vulnerabilities to climatic extremes and stresses through spontaneous and guided migration.
- Vietnam maps (2016). Retrieved from <http://vietnammap.facts.co/vietnammapof/vietnammap.php>
- Warner, K. (2013). Enhancing adaptation options and managing human mobility in the context of climate change: role of the United Nations Framework Convention on Climate Change. *Climate Change: International Law and Global Governance*: vol. 2, p. 761-784.
- Wesselink, A. and J. Warner (2010). Reframing floods: Proposals and politics. *Nature and Culture*: vol. 5, no. 1.
- White, G. (2011). Climate change and migration: Security and borders in a warmer world. New York: Oxford University Press.

Source of pictures

The pictures included in this MSc Thesis were all taken by myself during the fieldwork in Vietnam between the 21st of April until the 20th of June.

Appendices

1. Interview questions rural residents

General

- What is your name?
- What is your age?
- Where do you live?
- How many members are part of your family?
- What kind of work do you do?
- What is your level of income per month?
- What is your level of education?
- Do you own land, and how much?

Perceptions on climate change

- Did you experience any storms last few years, and what effect did it have?
- Do you think the temperature is changing over the years, and how does that influence your work and way of living?
- Did you experience any flooding last few years, and how did it affect your work?
- Do you experience salinization, and what influence does that have on your harvest and/or fishing?
- Are the times of harvesting changing, and how?
- How do you think climate change will develop in the future?

Adaptation strategies

- How did you deal with storms, temperature rise, flooding and salinization?
- Do you use improved techniques, fertilizer, or changed the frequency of cultivation?
- Did you raise the foundation of your house against flooding?
- Do you have another (off-farm) job to increase your income?
- Do you participate in community-saving schemes to save some money in case of a disaster?
- Do you send your children to school, and why do you think that is important?
- Do you think your children will stay in your hometown and have the same profession as you, or do you think they will do something else?
- How could the school system be improved in your hometown?

Perceptions on local government policies/measures & awareness

- Who could help you overcome the difficulties of flooding, salinization and temperature rise, and how?
- Do you get support from the local government in the Mekong Delta in dealing with climate change, and how?
- How do you get information about climate change from the government?
- Does the local government ask you about your perceptions on climate change?
- What would be your suggestions for the government to improve your situation?

Perceptions on life in Mekong Delta

- How do you experience your life here? What do you like/dislike?
- Do the people take care of each other in your village, and how?
- Did you think of migrating to the city, and what attracts or doesn't attract you there?

- In what way does your life differ from living in a city?

Social networking

- Do you have family who migrated to the city, and how many?
- How old were they when they migrated?
- Do you have contact with them, and how?
- Do they visit you, and how often?
- Do you receive money from your family who migrated to HCM, and how much?

Drivers of migration

- What were the main reasons of your family to migrate to the city?
- Did climate change (decreased land productivity) play a role in migrating to HCM, and how?
- Do you think it is safer to live in HCM or in your hometown, and why?
- Do you trust the local government in HCM or your hometown more, and why?
- Do you like the population size and density better in HCM or your hometown, and why?
- Do you think that there are less or more diseases in the city compared to your hometown, and why?
- Do you think educational opportunities are better in the city or in your hometown, and why?
- Do you think that there are more employment opportunities in HCM, and are the earnings higher?

2. Topics focus group discussion rural residents

All these topics should be asked during the focus group discussion. Farmers can indicate on a scale of 1-10 how important the issues are. So for example the topic is 'CC experience', and farmers can share their perceptions by putting a number for each issue. So if they experience drought a lot they could give a 9 to that issue; if they have no experience with erosion then they could give a 1 to that issue.

- CC experience: drought, salinization, flooding, temperature rise, lack of water, erosion, pollution, storms/typhoons/tornado
- CC impact: decreased productivity, less income, hunger, destroyed house, changed time of harvesting
- adaptation strategies: off-farm activities, education (for children), raise foundation of house, usage of new agricultural methods, fertilizer, changed frequency of harvesting, community saving schemes
- who helps and who should help? Household responsibility, community, local government, national government, NGOs, private businesses
- what information do you use: television, news paper, meetings people committee, internet + what should be improved?
- what do you like about your hometown: family, community-living, fresh food, place of my ancestors, climate
- what do you dislike about your hometown: too little work, bad education, many diseases, no trust in local government, not safe enough, bad population size and density, qui
- social networking migrants: telephone, facebook, visits, remittances
- why they migrated? Jobs, decreased crop productivity, better safety in the city, higher trust in local government, better population size and density, more excitement, less diseases, better education opportunities

3. Interview questions urban migrants

General

- What is your name?
- What is your age?
- Where do you live?
- How many members are part of your family, and who are they?
- What kind of work do you do?
- What is your level of income per day?
- What is your level of education?

Drivers of migration

- Why did you migrate to HCM?
- Did you migrate here permanently or temporary?
- Are your family members in your hometown farmers?
- Is it difficult to make enough money with that, and why?
- Do you think it is safer to live in HCM or in your hometown, and why?
- Do you trust the local government in HCM or your hometown more, and why?
- Do you like the population size and density better in HCM or your hometown?
- Do you think that there are less or more diseases in the city compared to your hometown, and why?
- Did your family support you to migrate to the city, and are they happy that you migrated?
- Do you think educational opportunities are better in the city or in your hometown, and why?
- Was it difficult to find a job in your hometown, and why?
- Do you think that there are more employment opportunities in HCM, and are the earnings higher?

Perceptions on life as urban migrant in HCM

- How do you experience your life here; what do you like or dislike?
- In what way does it differ from your live in the rural areas?
- Would you consider going back to the rural areas, and why?
- Is it expensive to live in HCM compared to your hometown?
- Are you able to save money?

Social networking

- Did you know other people who migrated to the city before you migrated, and who?
- What were their main reasons to migrate?
- Do you have contact with them, and how?
- Do you have contact with other migrants from the Mekong Delta in HCM, and how?
- Do you have contact with your family in your hometown, and how?
- Do you visit them, and how often?
- Do you send money to your family who are living in the rural areas, and how much?
- Do you have contact with people from HCM, and how?

Education / awareness

- Do you send your children to school, and why do you think that is important?
- Do you hope your children will become farmers or stay in HCM to work?
- How could the school system be improved in Vietnam?

Perceptions on local government policies/measures

- Do you get support from the local government in HCM, and what kind of support?
- Do you have ideas to improve the government policies to improve your situation?

Comparison table between HCM City and home town

	HCM City	Home town
Level of income		
Employment opportunities		
Safety		
Living costs		
Health care		
Education		
Population size/density		
Trust in government		
Living conditions		
Fresh food		
General preference		

4. Interview questions policy makers**1. General**

- what is your profession, and how long did you have this position in your work?
- what experiences do you have with climate change and migration in your working area?

2. Impact CC and adaptation strategies

- how is climate change experienced in the Mekong Delta?
- how do people deal with climate change / what are their adaptation strategies?

3. Role government in CC

- what role does the government play in climate change?
- how does the government support the residents in the Mekong Delta regarding their adaptation strategies to CC?
- does the government organize relocation programs (or in the past), and why?
- are there special policies for vulnerable/poor people in the Mekong Delta?
- how could the government's policy and measures be improved?

4. Involvement / knowledge of local people

- do you think local people have enough knowledge about CC, and why?
- how does the government create awareness under the local people on climate change?
- how could education improve the situation of local people affected by CC?
- is the government policy on climate change mainly based on scientific or local knowledge, and why?
- how does the government try to involve the affected people in the policy-making processes?

5. Migration

- why do people migrate from the Mekong Delta to the city?
- do you think CC plays a role people's decision to migrate to the city?
- does the government have any policies / programs to support migrants, and what kind?

5. Interview questions experts

1. General

- what is your profession?
- what kind of research did you do before / are you conducting currently?

2. Climate change perceptions and adaptation strategies

- what are the characteristics of climate change in the Mekong Delta?
- what is the impact of climate change on rural residents?
- what kind of adaptation strategies do rural residents of the Mekong Delta use?
- what role does vulnerability play on the outcomes of adaptation strategies?
- do you think the perceptions (what people *think*) may vary from the social realities (what people *do*), and if so, how?

3. Drivers of migration

- what drives people to migrate to the city?
- what is the role of the environment, political situation, demography, social setting and economic situation in migration?
- what role does the framing of climate refugees / environmental migrants play on the lives of affected people in the Mekong Delta and urban migrants in HCM?

4. Social networking

- what is the role of social networking in migration dynamics (family who migrates)?
- how do the migrants keep in contact with their family in the hometown?
- do most of the migrants send remittances to their family in the hometown?
- is there a community of migrants in HCM or do they live and work scattered around the city?
- is there a lot of contact between migrants?
- do migrants have contact with local people from HCM, and how?
- who are most likely to migrate and why?

5. Perceptions on government's policies and measures

- what is the role of the local government in the domain of climate change and migration?
- why do you think government's programs of relocation or *living with the floods* work or not?
- does the government put economic restrictions or loan possibilities for migration?
- how could the government's policy and measures be improved?
- do you think the government's policies and measures are based on realities, and what role do myths play in that?

My assumption is that the government's policies and measures may be based on myths, since they narrate environmental issues through convincing storylines, but oversimplify the human-environment

interactions (e.g. 'living with floods' program linking relocation to improved living conditions; exposure is reduced, but vulnerabilities are not necessarily also reduced)
> what do you think about that?