

Island Stories

Mapping the (im)mobility trends of slow-onset environmental processes in three island groups of the Philippines

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Fig 1: A fisherman crossing a river in the Philippines.

1. WHY SLOW ONSET IMPACTS AND HUMAN (IM)MOBILITY IN THE PHILIPPINES?

The Philippines has frequently been pointed out as one of the countries at the most risk of global environmental changes. The country, for example, ranked as the fourth country most affected by extreme-weather events in the world during the period of 2000 to 2019 (Eckstein et al. 2019; Mucke et al. 2019; Germanwatch 2020). The geographical location exposes the islands to a range of natural hazards, while its large population's dependence on natural-resource-based livelihoods makes them more vulnerable to climatic impacts (Wisner et al. 2003; IPCC 2012, 2018; Cruz et al. 2017). Most research on human mobility in the Philippines has until now focussed on sudden-onset environmental shocks such as typhoons, with very limited studies investigating slow onset events (Bankoff 2015; Acosta et al. 2016; Chandra et al. 2017).

Typhoon Haiyan proved the importance of perceptions to this literature body, as many did not evacuate despite having received warning messages days prior to its landfall (GIZ 2014; Ayeb-Karlsson et al. 2019a). The assumption is often that people will prepare and respond to climatic impacts if they obtain the means (Mercer et al. 2009; Bankoff 2015). However, individual behaviour is deeply influenced by subjective, cultural and social values. It is therefore vital to gain deeper insights into the local perceptions that surround human (im)mobility (Ayeb-Karlsson et al. 2019b; Oakes 2019). This study therefore applies a storytelling approach considering psycho-social subjectivity to map out slow onset-induced (im)mobility trends in the Philippines.

According to the Internal Displacement Monitoring Centre (IDMC), there were 364,000 Internally Displaced Persons in the Philippines in 2019.¹ These figures generally refer to sudden-onset displacements, however, slow onset events, such as changes in temperatures, rainfall and rising seas, also contribute to population movements. It is clear that the ways that creeping and gradual slow onset events lead to human (im)mobility, either by pushing people to migrate or by constraining their ability to move, require more attention.

The current environmental migration literature tends to focus on more sudden hazards (such as typhoons, storm surges, floods, droughts and heatwaves) in specific geographical areas (Piguet et al. 2018; Zickgraf 2021). Adding to this, even though Asia-Pacific is overrepresented in the limited literature body that investigate slow onset events, the research mainly focuses on a few geographical areas.² These includes countries such as Bangladesh and India (Panda 2017, Kattumuri et al. 2017; Chen and Muller 2018; Sedova and Kalkuhl 2020), or the Pacific Islands and particularly Fiji (Oakes 2019; Zickgraf 2021; McNamara et al. 2021). The lack of empirical evidence relating to slow onset processes is confirmed within global climate policy circles (UNFCCC 2012, 2018; PDD 2018). This article is therefore an important contribution to this research and policy knowledge gap.

Slow onset events such as temperature changes, rising seas, erosion and land degradation will have long-term effects on the Asia-Pacific region (IPCC 2012, 2018; ADB 2017). Sea level rise in the Philippines could reach approximately 20cm by the end of the 21st century which is more than the global average (Cruz et al. 2017; PAGASA 2018). The rising seas contribute to groundwater reduction, coastal changes, mangrove loss and damage, and could lead to displacement and 'trapped' populations (Laurice Jamero et al. 2017;

¹ For more details, see the 2019 internal displacement figures by country on the Global Internal Displacement Database available online at <https://www.internal-displacement.org/database/displacement-data>.

² For example, a recent review of the slow onset environmental migration literature found that 56 out of 101 articles investigated countries in Asia (55%) whereof 17 in Bangladesh, and nine in India. 70% of the articles studying sea level rise were from the Asia-Pacific region such as nine from Bangladesh and five from Fiji (see Zickgraf 2021, for more details).

McMichael et al. 2020; Bell et al. 2021). The low-lying island group risk facing various slow onset processes, including rising seas, land degradation and desertification, changes in rainfall and water quality (IPCC 2012, 2018; Cruz et al. 2017).

When it comes to extreme weather events, people may temporarily evacuate from a typhoon and later return home to continue their livelihoods (Black et. al. 2013; Ayeb-Karlsson 2020a). However, with slow onset events, people whose livelihoods depend on rain-fed agriculture may struggle as precipitation or access to water slowly decreases over time. As a response, some people shift or diversify their livelihoods to protect themselves against food insecurity (Ayeb-Karlsson et al. 2016; Ahmed et al. 2019). However, sometimes this is not enough and people are forced move (temporary, seasonally or permanently) to seek alternative income opportunities (Foresight 2011; Black et. al. 2011).

Migration can be an effective way to bounce back from environmental stress. People who migrate to a place where they have social networks may have better access to livelihoods, land and housing (Black et. al. 2011; Nawrotskzki et al. 2016). However, population movements can also come at a cost. For example, dangerous working conditions in the cities sometimes lead to injuries, reduced ability to work, and income loss. Rural-urban migration can therefore serve as a solution to escape environmental stress, but it may also expose people to new hazards and risks (McNamara et al. 2016; Nawrotskzki et al. 2016; Ayeb-Karlsson et al. 2016, 2020).

Slow onset processes can also erode people's ability to move while increasing their vulnerability to natural hazards (Black et al. 2013; Ayeb-Karlsson 2020a, 2020b). The concept of Trapped Populations has been used to study people who desire but are unable to escape environmental risks (Foresight 2011; Black et al. 2011, Ayeb-Karlsson et al. 2018). For example, those left behind while others migrate, those who own land or have made investments that cannot be left behind, and those impoverished by repeated crop loss and debts may become financially, socially and/or psychologically immobile (Black et al. 2011; Bhatta et al. 2015; Adams 2016; Ayeb-Karlsson et al. 2020). It is therefore important that studies investigating people's environmental experiences include those who leave as well as those who stay put. More recently, environmental migration scholars have argued that a strong mobility bias makes us forget about this immobile group. Those who choose to stay behind or cannot move may be just as vulnerable (Nawrotszki and DeWaard 2018; Schewel 2019; Zickgraf 2019; Morrissey 2020), with empirical studies indicating disproportionate wellbeing and mental health impacts upon women and children (Cutter 2017; Chandra et al. 2017; Ayeb-Karlsson 2020b, 2020c; Watts et al. 2020; McNamara et al. 2021; Kelman et al. 2021).

2. METHODS AND STUDY AREA

This study investigated the ways in which slow-onset-processes contributes to mobility and immobility in the Philippines, and how policy can better help support those moving, hosting or left behind. The article focuses on mapping the (im)mobility trends of 12 study sites spread over three island groups and the translocality³ of these places (see Fig. 2).

³ The use of *translocality* as a research perspective includes scholars from diverse backgrounds who investigate the dynamics of mobility, migration and socio-spatial interconnectedness developed over time, see for example, Greiner and Sakdapolrak 2013 and Etzold 2016.

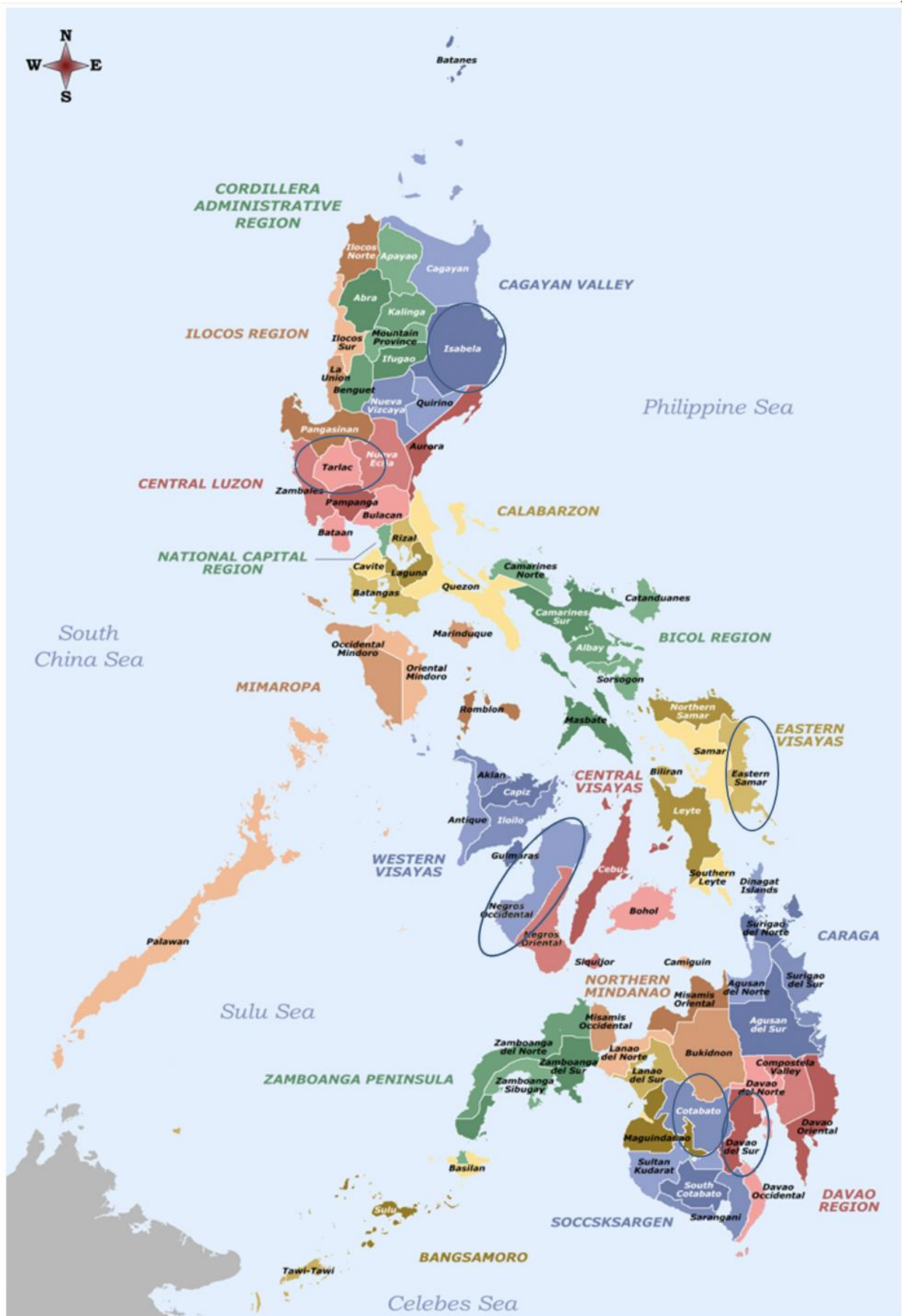


Fig 2: Overview of the study areas within Luzon, the Visayas and Mindanao where the research was conducted.

The 12 research locations were distributed across the three major island groups of the Philippines (Luzon, the Visayas and Mindanao) and include one places of migration origin and destination area within each province (see Fig. 2). For each origin study site, a context specific set of slow-onset drivers and high/low social vulnerability (based on poverty level, school attendance, landlessness / land tenure, and health and nutrition) served as the main selection criteria. For each of the three provinces, and in consultation with the national and later local government, one origin site with relatively low environmental and social vulnerability risk was selected and another with relatively high environmental and social vulnerability risk (Palao et al. 2016; NEDA 2017). Adding to this, the three selected major island groups have different socio-spatial characteristics that make them vulnerable to climate-related risks. Some flexibility for the study site selection remained as the field work began. For example, the knowledge gathered during the local expert interviews were considered in terms of the origin areas, meanwhile the early findings from the origin areas were used to justify the selection of the destination areas. In this way, it was ensured that there was a clear migration link between the origin and destination sites.

The qualitative research design focused on storytelling research tools considering psycho-social subjective understandings of climate and (im)mobility perceptions.⁴ This article mainly draws from the Focus Group Discussions (FGDs) that were conducted separately with women and men. A strict female / male informant quota was maintained to capture important gender perspectives related to the social values and gender roles throughout the researched sessions. In total, approximately 500-550 women and men took part in the 48 research sessions, 24 of the sessions were conducted in origin sites and 28 in destination sites. 16 of them were conducted in Luzon, 16 in the Visayas and 16 in Mindanao (see Fig. 2). The sessions included approximately 12 participants in each and four sessions were conducted in each study site. One of the sessions focussed on mapping out the mobility patterns, remittances and reasons for why people moved to these areas, while the other focussed on the deeper decision-making enabling and disabling (im)mobility.

The fieldwork faced a number of challenges due to the COVID-19 pandemic. Hard quarantine and national lockdown measures were put in place by the national government in the middle of the data collection. As the lockdown restrictions and regulations kept changing, the researchers had to accommodate around these developments. Several of the study locations were identified as areas with high infection rates and thus categorized as regions requiring strict quarantine protocols. In the end the study faced extensive delays, but the researchers managed to accommodate around the hurdles and safely complete the investigation.

The research sessions should be understood as qualitative assessments of the values and perceptions people have of their home's mobility and immobility patterns, history and experiences.⁵ Studying mobility as well as immobility gives as a deeper understanding of why people decide move while others stay or are unable to leave. These insights into the wider contexts and dynamics can help inform policy- and climate action tools. The rich local evidence outlines how to best support people on the move as well as those staying put.

⁴ For more details on the anthropological narrative approach, see research design for the storytelling sessions and methods section in Ayeb-Karlsson 2020a, 2020b, and 2020c, and conceptual justifications in Reckien et al. 2013 and Ayeb-Karlsson 2020d.

⁵ The study does not attempt to quantitatively assess the (im)mobility trends. It purely focusses on qualitative values and perceptions around these trends. In this way, the data do not attempt to answer how many people moved, stayed, or returned. for such an investigation, a survey questionnaire would be more appropriate.

3. RESULTS

The storylines that emerged identified values around why people wanted to move (or stay), how they wanted to move, where they had family and social networks as well as past (im)mobility experiences. The findings provide valuable insights into the ways that policy can better support people on the move and those staying behind in the context of slow-onset environmental changes, including where, who and how. The narratives are structured into those elaborating around international (im)mobility, and the (im)mobility storylines within the separate island groups. This distinction is important as the island groups are shaped by a diverse history and social context.

3.1 Mindanao (im)mobility trends

The research sessions carried out in Mindanao illustrated how Luzon (particularly the Manila region) was a top-destination area for migration. Women tended to leave from Davao while men mainly departure from Cotabato (see Fig. 4). The participants explained how the historical migration connections traced back to the resettlement programs of poor landless Christians to Mindanao that began in the 1920s and did not end until the 1970s. Even though these settlers came from Luzon and the Visayas, the participants explained that their origins tied back to Luzon. The Mindanao land that the settlers were given to farm was provided by the government which created land conflicts between the ancestral- and 'new' owners / land grabbers. These governance processes also fuelled religious tension between Muslim and Christian groups that generated the creation of resistance movements still active today.

This historical and political context is important to understand people's (im)mobility reasons and desires (Tiango 2006; Mialhe et al. 2015; Chandra et al. 2017). People explain how their families relocated or were forced to flee the conflicts in the past. This contributed to current feelings of not belonging or lacking place attachment; *"Those who relocated during the conflict are in Laak where they are now working"* (Male group session, Mindanao, 13.02.2020), and *"Armed conflict and unclear land rights have negatively impacted us. /.. / For example, people escaping criminal offenses influence the armed conflict. Meanwhile, the unclear land rights and ownership disputes add to the tension and conflict"* (Male group session, Mindanao, 16.02.2020), and *"Another reason could be that people are caught in an armed conflict. Especially now that rido [clan conflict] is still in place. We have experienced this. There was a time when those who were from the outside, transferred here, and those living here, had to move out"* (Female group session, Mindanao, 15.02.2020). Adding to this, people explain how besides the agricultural struggles that people face due to the changing climate, rebel groups sometimes enter villages and demand livestock or crops.

People's narratives described how the immediate impacts of slow-onset environmental stress, such as reduced crops due to the changing climate or agricultural loss and debt, forces them to migrate; *"Life here is all about farming. However, because of the unpredictable weather we experience crop failure. That is why we move"*, *"As a 65-year-old, I wanted to return to farming, but with climate change, the weather patterns do not match the planting season. Rain and intense heat disrupt the farming. I am forced to stay due to old age. I can attempt working on the farm, but it is not enough"* (Male group session, Mindanao, 12.02.2020), *"The water from above does not sustain the farms below. That is why people are forced to pawn their lands"*, and *"They may migrate because of unpaid loans that target them as wanted"* (Female group session, Mindanao, 15.02.2020).

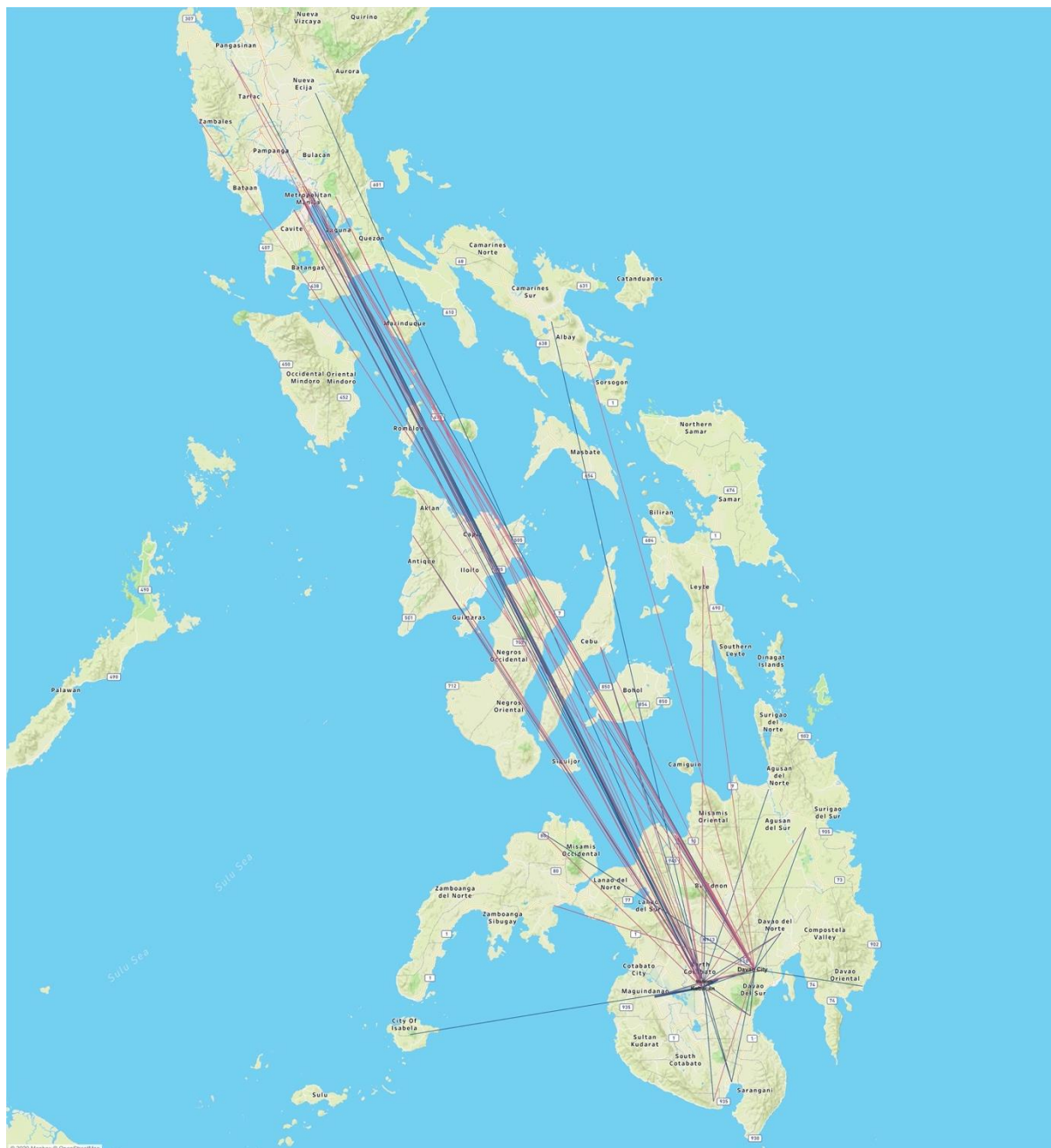


Fig 3: Internal migration flows generated from the study sites in Mindanao. The blue lines indicate male movements, while the red lines show female movements.

3.2 The Visayas (im)mobility trends

In the Visayas, the sessions indicated that there was little movement in between the island group and to Mindanao, while those who migrated tended to move to Luzon and the Manila region (see Fig. 5); *“There are fewer migrants here in the Visayas than in Luzon. Those areas are more urbanised and there are many productive centres with companies that serve as major migration destinations”* (Female group session, the Visayas, 04.09.2020). One of the out-migration cities in Eastern Samar (Borongan) mainly saw women moving. Out of the three islands groups, people here were the most hesitant towards moving giving

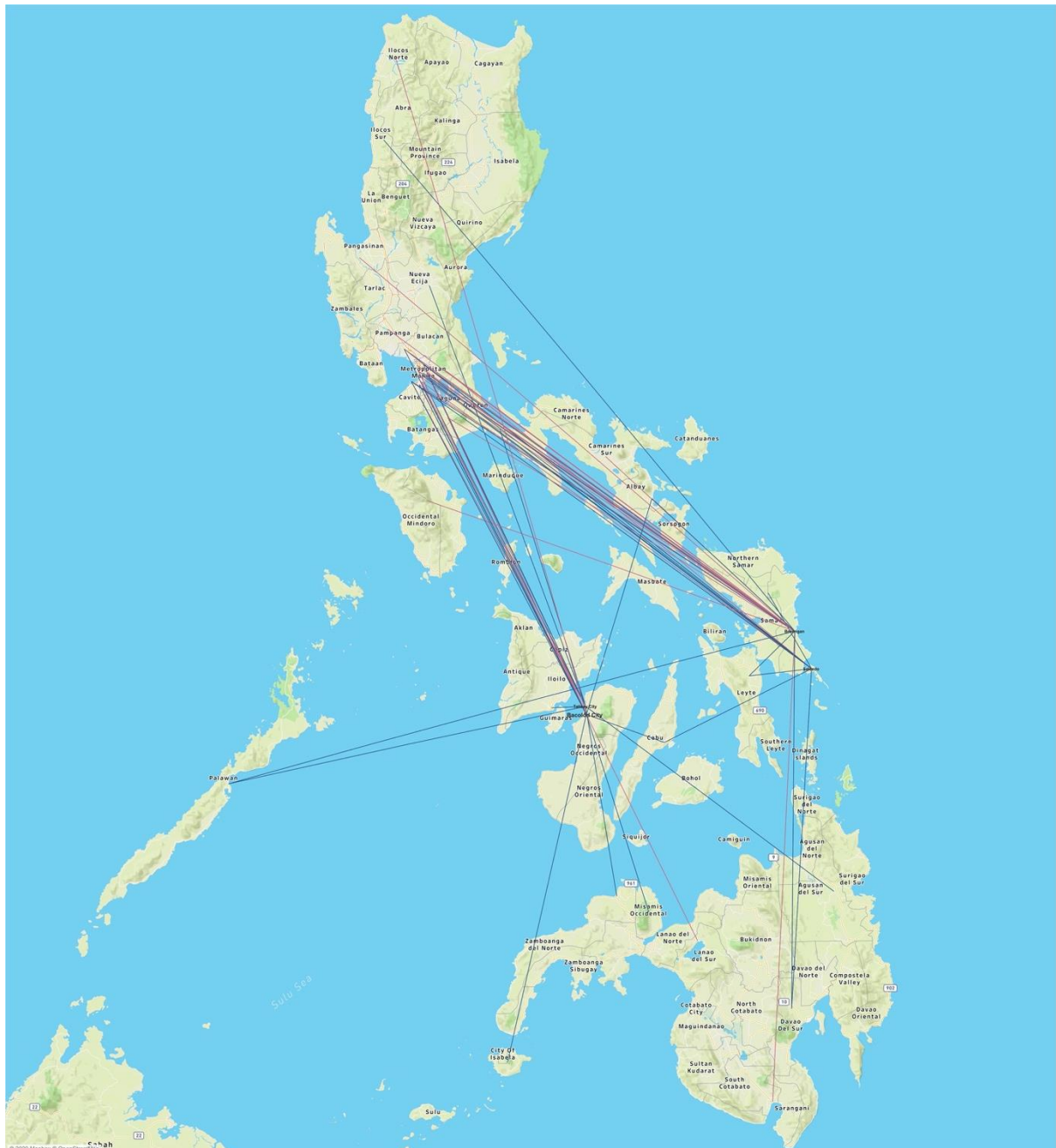


Fig 4: Internal migration flows generated from the study sites in the Visayas (blue lines indicate male movements, and red lines female movements).

different reasons for why they could not leave or had to stay back. People in this region described feeling the most as if they were unable to migrate or identified with being immobile or ‘trapped’.

The participants explained how contacts and social network were key to enabling someone to migrate and determined where to go. Movements were often limited to surrounding cities by women who picked up domestic work. These women would then refer work opportunities to other women in their family or social network back home so that they could join them. The women often returned home to visit their families and friends as they lived close by. This was therefore seen as a softer kind of migration (short distance, temporary, without extensive social changes or personal losses).

As most participants did not have social connections abroad or even on Mindanao, they had never been there and saw no reason to attempt going there. Some even described how they could not imagine going abroad as it was too far away; *“They work in the city as domestic helpers, but they return here from time to*

time”, *“Abroad is too far for me. I could not imagine that”* and *“I do not imagine going to abroad, or even to Mindanao, because I do not know anyone there and I do not have money for transportation”* (Female group session, the Visayas, 04.10.2020). By following the migration paths of relatives and friends, people had work waiting for them, a house to stay in, and someone to help them settle in; *“Having no house to stay in or migrate to is another problem. More so without family members to shelter us”* and *“You also cannot migrate easily when you do not have a job waiting for you there”* (Female group session, the Visayas, 04.09.2020).

Money was an important immobilising factor that made people think twice about attempting to migrate. This related to the financial cost of transport, but also to the more expensive and difficult life in the cities and abroad; *“The life of overseas workers is not as easy as it may seem to be. We have to be more understanding of them and we should not expect them to send remittances regularly”* (Male group session, the Visayas, 04.10.2020). Another important immobilising factor was family and particularly children. These narratives differed from common migration attitudes captured elsewhere. Leaving children behind was often seen as a difficult but natural part of the migration process in Luzon and Mindanao. People in the Visayas, however, described how this was not something they would do, or even sympathised with, as it severely impacted children’s wellbeing.

3.3 Luzon (im)mobility trends

Luzon, the final island group, has already been outlined as the prime destination for people moving from the Visayas, Mindanao as well as an intermediate migration-hub for those migrating abroad (see Fig. 6). These movements often lead people to the industrial areas in and around Manila. In terms of the internal movements, men mainly came from Isabela while women tended to migrate from Tarlac (see Fig. 1).

The participants in the rural sites tended to agricultural activities that were uncertain and difficult to depend on due to changes in climate and rainfall. The struggles that made people leave, included hard labour under the sun, high financial investments that brought low produce, and the lack of alternative livelihoods that pushed people into debt and cycles of poverty; *“It is extremely hot here. It is cooler there. You would find it difficult to work here because it is so hot. Over there, you will not”* (Male group session, Luzon, 06.03.2020), *“When the weather changes so do the mood of people”* (Female group session, Luzon, 05.03.2020) and *“It is difficult to find money in the province. If your parents are farmers, you may need to wait three months to be able to buy yourself a treat”* (Female group session, Luzon, 22.09.2020).

The farmers also struggled with African Swine Fever which made life uncertain for livestock farmers. The disease impacted the prices and market. Some farmers also faced losses as the government sometimes decided to put down pigs in an area where a positive case had been detected. Poverty severely affected the wellbeing of farmers and their families. It was described as a key reason to why people decided to leave. The financial losses and strains triggered crimes and theft of farming equipment that would lead to social tensions. The participants also explained that poverty, lacking education and opportunities to train in other skills, resulted in increased substance use and gambling. This exaggerated social tensions and strains upon family relations that teared couples apart and lead to infidelity. People sometimes decided to migrate to the cities or abroad to escape some of these struggles; *“Those who have done something wrong and are in hiding move to another place”*, *“Debt. People go into hiding because of it”*, and *“You will not get a high salary with low education. It connects with poverty because you will be forced to commit crimes. This will worsen the poverty. You have become a criminal /.../ If you have committed a crime, nobody will feed your family. As nobody supports your family financially, there will be no food. /.../ When you have become a criminal, there will be gossip. People gossip about you being a criminal. That you are in jail. It is like pollution*

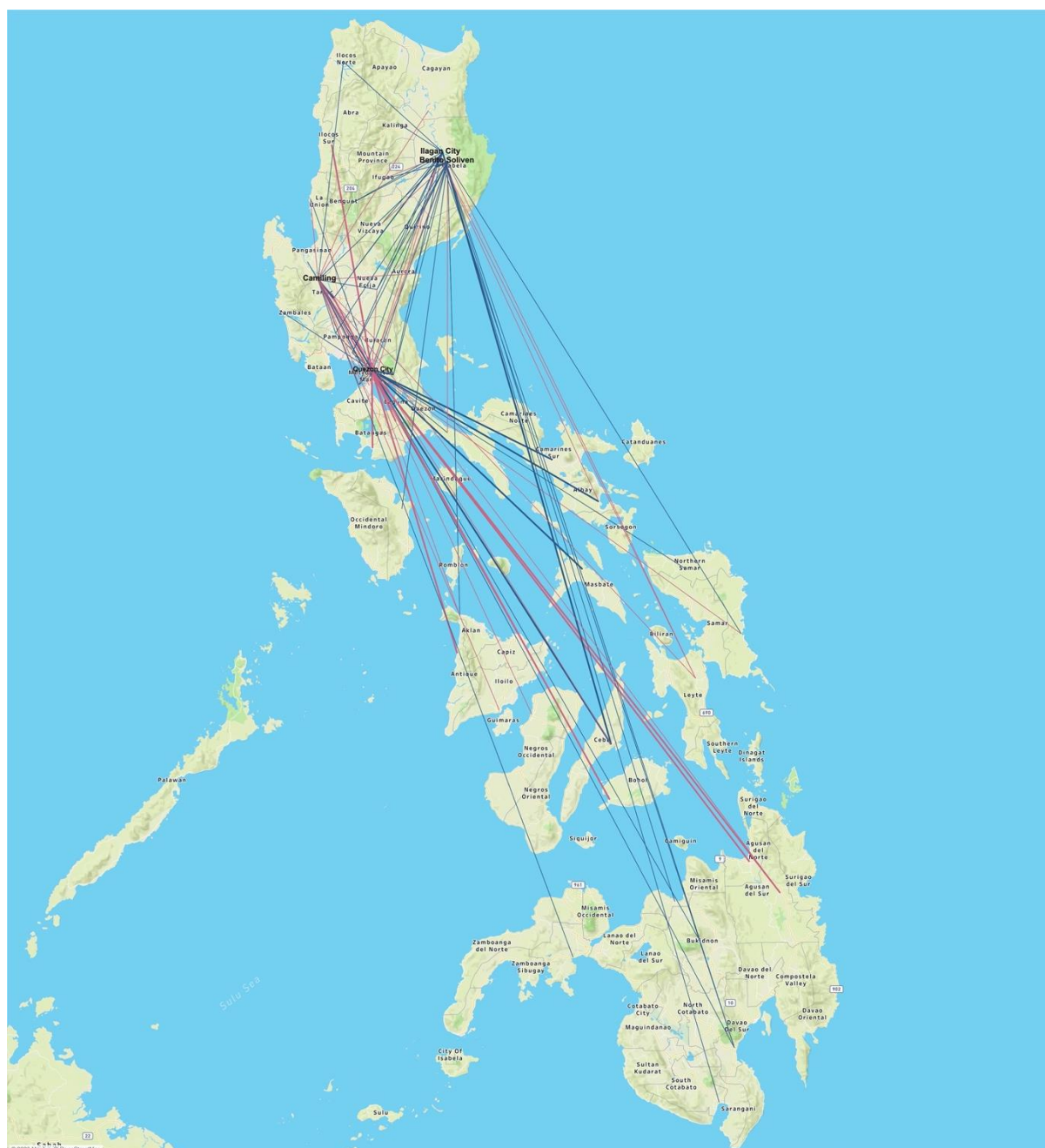


Fig 5: Internal migration flows generated from the study sites in Luzon. (blue lines indicate male movements, and red lines female movements).

because it feeds more gossip. You have become polluted by people. To them, you are already stinky. You are filthy” (Male group session, Luzon, 06.03.2020). Spending extended periods of time separated made marriages fall apart which sometimes resulted in the migrating party never returning. Besides the moves of husbands and wives to escape poverty, social tension and punishment, children and siblings also left for similar reasons and later brought their parents and grandparents along.

As observed, reduced social status due to illegal activities and crimes sometimes influenced people’s decision to migrate. However, the sessions also captured how migration could lead to increased social status. Some people decided to move in an attempt to increase their social value. People having made it to Manila were famous and looked upon as stars in the villages.

4. CONCLUSION

The study found that migration experiences when successful provided people with social and economic opportunities that improved their quality of life. However, those moving, as well as those left behind, could also find themselves in vulnerable positions. Migrants often settled down in poor and marginalised areas of cities or were exploited abroad due to the lack of labour and social protection laws. Households facing extended periods of slow-onset environmental stress, eroded their financial and social assets, and decreased their likelihood of positive migration experiences. Desperation, often due to extensive financial losses, debt or social tension, forced people to settle down in riskier places and accept riskier working and living arrangements. Similarly, those left behind in more precarious circumstances tended to face more difficulties due to lacking remittances, abandonment or stress related to unpaid debts or social tension. More empirical evidence on the impacts of slow-onset environmental stress will be required to get a better idea of what support is needed. For example, eroded wellbeing and identity, from slower damage to people's livelihoods and natural resources, such as land and water, influence people's (im)mobility in a creeping more subtle way than in the case of natural hazards leading to immediate displacement. More research must follow this study that is strategically planned to inform climate policy and action. Further studies of the unequal impacts upon vulnerable populations and regions will help better target marginalised groups, tailor the support needed, and work against extending the fragility of people in the future.

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