



# FRAMING THE HUMAN NARRATIVE OF MIGRATION

## IN THE CONTEXT OF CLIMATE CHANGE

A Preliminary Review of Existing Evidence in the Philippines

This report has been produced as part of the Climate Change Adaptation and Community Resilience in the Philippines (CARP) Program, with the support and funding of the IOM Development Fund (IDF). The contents of this publication are the sole responsibility of the author and can in no way be taken to reflect the views of the International Organization for Migration (IOM). This publication was issued without IOM Publications Unit approval and the designations employed and the presentation of material throughout the report do not imply the expression of any opinion whatsoever on the part of IOM concerning the legal status of any country, territory, city or area, or of its authorities, or concerning its frontiers or boundaries.

The Climate Change Adaptation and Community Resilience in the Philippines (CARP) Program is a two-year project funded by the IOM Development Fund, implemented by the IOM Philippines mission. The project aims to contribute to the global knowledge base on migration in the context of climate change or, as this report posits, the climate emergency. This preliminary report aims to contribute to future discussions on policy options and how migration can be used by policymakers and local communities as an adaptation strategy to environmental and climate change. For more information on CARP, please contact Climate Change and Sustainability Unit of IOM Philippines, at [ccsuph@iom.int](mailto:ccsuph@iom.int).

This Desk Review Final Report has been made available online only, in line with IOM's environmental sustainability efforts. No hard copies have been printed in order to avoid the environmental impacts of printing and shipping. The report is available for free download at [philippines.iom.int](http://philippines.iom.int).

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## **Climate Change and Sustainability Unit**

IOM Philippines

# FOREWORD

Climate change is the defining crisis of our time and it is happening even more quickly than we feared. But we are far from powerless in the face of this global threat. As [Secretary-General António Guterres pointed out](#) in September 2019, “the climate emergency is a race we are losing, but it is a race we can win”. As an archipelago consisting of more than 7,000 islands with high levels of climatic variation, the Philippines and Filipinos’ lives are closely intertwined with environmental migration. However, while the Philippines is one of the smallest contributors to the causes of climate change, globally it ranks as the second most affected by impacts of climate risks.<sup>1</sup> This is very evident whereby the country is impacted by various types of natural hazards, high levels of climatic variations, and both rapid-onset events such as typhoons and slow-onset events such as droughts and El Niño. These events affect millions of Filipinos every year. Those severely impacted continue to be the already vulnerable populations, including those reliant on agriculture and fisheries, women, older persons, and the poor.

Such susceptibility and vulnerability have a large impact on migration patterns in the country. Evidence in the Philippines suggests that recurrent climatic events like tropical storms are forcing people to migrate permanently from their residences. An average of 3.6 million displacements due to disasters are recorded annually, with the majority caused by typhoons and succeeding weather events. Meanwhile, slow-onset events that are less evident are affecting the livelihoods of populations dependent on natural resources. Given the Philippines’ topographic characteristics, exposure and vulnerability to climate change, dependence on natural resources, and its relatively limited adaptive capacity, natural hazards and climate change will continue and exacerbate forced migration in the Philippines. If not managed well,



A handwritten signature in black ink, consisting of a stylized 'K' and 'D'.

**Kristin Dadey**

Chief of Mission  
IOM Philippines

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<sup>1</sup> 2020 Climate Risk Index

this will have an adverse impact on multiple levels for individuals, communities and the country as a whole both socially and economically.

As the Coordinator and Secretariat of the UN Network on Migration in the Philippines, IOM has conducted various studies on the impact of climate change on migration. It is imperative to have a clearer understanding of the nexus between climate change and migration, and to explore the options and challenges presented by migration as an adaptation strategy. With the aim to bolster climatic resilience of communities in the Philippines, IOM Philippines, in coordination with the Climate Change Commission, has developed this report “Framing the Human Narrative of Migration in the Context of Climate Change: A Preliminary Review of Existing Evidence in the Philippines”. This report is to provide an initial framework for in-depth policy research on climate migration. It builds on the existing evidence on migration and climate change in the Philippines and is complemented by exploratory interviews with local governments and vulnerable sectors and communities who have been impacted.

We hope that these findings will support key stakeholders in continuing to develop migrant-centered policies and programs with the most recent and relevant information. Such evidence-based programming will ultimately enhance efforts to respond to the immediate needs of affected populations while ensuring migration is utilized as a tool towards sustainable adaptation and risk mitigation for those affected by climate change.

# ACRONYMS

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CCA	Climate Change Adaptation
CAMANAVA	Caloocan, Malabon, Navotas and Valenzuela City, also known as CAMANAVA area
CENRO	City Environment and Natural Resources Office
COSE	Coalition of Services of the Elderly, Inc.
DA	Department of Agriculture
DAMPA	Damayan ng Maralitang Pilipinong Api, Inc.
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
IPCC	Intergovernmental Panel on Climate Change
LGU	Local Government Unit/s



# EXECUTIVE SUMMARY



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This report explores the question, “What is the current state of migration in the context of climate emergency in the Philippine setting?” To do so, the study utilizes two types of evidence: a) literature review and b) exploratory interviews with community members and local governments. All interviewees in this study were defined as being vulnerable to the effects of the climate emergency, ensuring that the local human narrative on migration was captured.

Key areas of inquiry:

- How does the climate emergency manifest itself to a Filipino?
- What is the current understanding of who is vulnerable to the climate emergency? What is the human narrative behind the data?
- What solutions are being undertaken to manage vulnerabilities, including by developing a clearer understanding of the role that migration plays as an adaptive mechanism?
- What kind of support and interventions can contribute towards climate resilience?

The research finds that the prevailing discussion of climate emergency in the Philippines is around rapid-onset events, while data from LGUs also involves slow-onset events such as sea-level rise. The felt impacts of the climatic variations are primarily linked to livelihood, for instance productivity loss in farming, fishing, and livestock raising. Evidence show that women are more affected than men when it comes to the climate emergency. Another highlight from the literature is the climate emergency’ relation to security and conflict as a result of resource scarcity. Furthermore, it is found that farmers, fishers, women, older persons, and the urban poor are more vulnerable and severely impacted by the effects of the climate emergency.

Migration is found to be one of the coping mechanisms of affected Filipinos, either as voluntary adaptive strategies or as involuntary adaptative strategies. Voluntary strategies include community organizing, and permanent and circular migration, while involuntary strategies include distress migration and systemic relocation of vulnerable populations.

This research reflects two main findings:

1. The relationship between the climate emergency and migration is mediated by the quality of one’s livelihood as well as access to security, peace and stability.
2. Planned and orderly migration, such as permanent and circular migration, occur as voluntary adaptive strategies for the climate emergency, while unplanned migration, such as distress migration and relocation, occur as involuntary adaptive strategies.

The report also provides recommendations pertaining to research, policy, and public knowledge. These center specifically on proliferation of knowledge about the human narrative of the climate emergency, framing the climate emergency as *not just* a scientific problem *but also* a social problem, and the importance of undertaking holistic, grounded, and context-sensitive policy interventions in relation to the most vulnerable communities.



**KEY FINDINGS:**

**A VISUAL SUMMARY**

## Who is vulnerable to climate impacts? Who are the humans behind the data?



**Farmers and fisherfolk** are severely impacted by slow and rapid onset events.



**Women** are more affected by climate impacts than men: 80% of people displaced by the climate emergency are women.



**Older persons** are also vulnerable, due to their physical constraints to move, and their roles as caregivers.



**Urban poor**, especially those living in coastal areas, are also severely affected due to low adaptive capacities to the climate impacts.

## How does the climate emergency manifest itself to Filipinos?



Among Filipino communities, discussions on the climate emergency focus on rapid onset events like storm surges, typhoons, floods.



Climate impacts are more felt in the livelihood sector, especially among farmers and fisherfolk.



There is a correlation to increase of rain, drought, loss of crops and resource scarcity to the seasonal rise in recruitment of rebel groups.



Climate impacts cascade on various facets of a person's life including health, material and immaterial costs to damaged shelters, education, etc.

# What solutions do Filipinos undertake to manage their vulnerabilities?



## VOLUNTARY ADAPTIVE STRATEGIES

such as

- Community organizing
- Permanent and circular migration

## INVOLUNTARY ADAPTIVE STRATEGIES

such as

- Distress migration
- Systemic relocation



A perspective view from the front of a wooden boat on a dark, choppy sea. The sky is filled with heavy, grey clouds. The boat's wooden planks and a rope are visible in the foreground. A small yellow marker is on the boat's prow.

# INTRODUCTION

The Philippines has consistently ranked among the top 10 countries with a high climate risk index<sup>2</sup> and in 2020 ranked 2nd in the list of countries that are facing climate risks. The 2019 World Risk Report published by the Institute for International Law of Peace and Armed Conflict of Ruhr University Bochum ranked the Philippines 9th, out of 140, among countries most at risk to disasters emanating from natural hazards (e.g. earthquakes, sea-level rise, cyclones, floods, and droughts).

Against this backdrop, both the national and the local governments have taken proactive measures to address climate risk. For example, legal frameworks are in place that serve as backbones for pursuing climate change mitigation and adaptation initiatives (Cuevas et al., 2016; Vinke et al., 2020). These legal frameworks include the Climate Change Act of 2009 (RA 9729), The National Disaster Risk Reduction and Management Act of 2010 (RA 10121), as well as Executive Order 43 in 2011, which established the Climate Change Adaptation and Mitigation Cluster. EO 43 was later superseded by Executive Order 24 in 2017, which established the Climate Change Commission to oversee the management and implementation of policies related to climate risk, disaster risk, and sustainable development. However, the programs and policies of both national and local governments have yet to integrate migration as a key theme in policy discourse on the climate emergency. In the same vein, there is an abundance of discourse regarding technological, infrastructural, and engineering-centered solutions to climate risk, which is a right step in the direction of addressing the climate emergency. In order to maximize the benefits that may be gained from such solutions,

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<sup>2</sup> Following the Climate Risk Index published by Germanwatch, the Philippines ranked 2nd in the list of most affected by climate change in the 2020 report, 5th in the 2019 and 2018 reports, 4th in the 2017, 2016 and 2015 reports.

the discourse has to be complemented in the same weight and magnitude by social, cultural, and human-centered solutions.

In this context, this report particularly focuses on the human narrative of the climate emergency, which inevitably includes migration. It aims to enhance knowledge on the relationship between climate change and migration, identify strong points and gaps in policy and research, and ultimately contribute to designing policies and programs based on the experience of Filipino people who are habitually confronted by the impacts of the climate emergency.

The main objective of this report is to review the existing evidence on migration in the context of the climate emergency, as experienced specifically in the Philippines. This report is thus shaped by the following line of inquiry.

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### **What is the current state of the art on migration in the context of the climate emergency in the Philippine setting?**

In answering this question, the report surfaces some of the key themes, issues, and relationships that build a knowledge base of the climate emergency and its relation to migration.

The report is underpinned by the importance of language in framing

action. As a result, it mainly uses the term “climate emergency” or “climate crisis” in place of “climate change” to reflect the urgency of action necessary to manage its effects. The decision to use such term was followed by the UN Secretary General António Guterres’ usages of the term during his speech<sup>3</sup> and adoption of House Resolution No. 1377 by the House of the Representatives of the Philippines which encourages enhanced climate actions throughout executive and legislative agenda of the government and shift from using the term from “climate change” to “climate emergency”.<sup>4</sup> In some instances across this report, there will be mentions of “climate change,” but this is used sparingly to reflect verbatim usage from interview transcripts or from the literature.

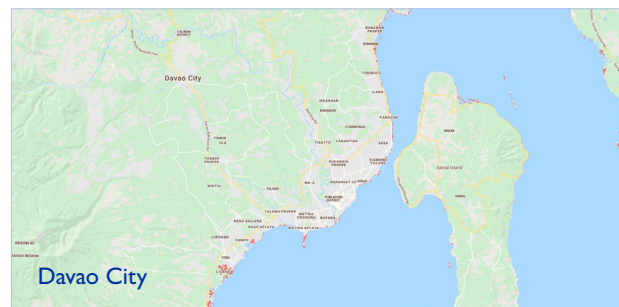
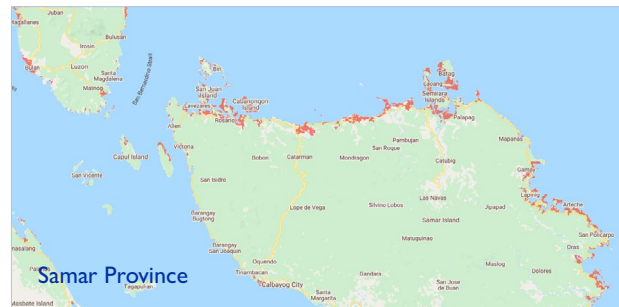
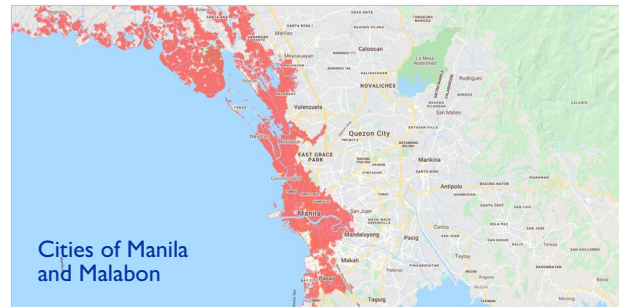
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<sup>3</sup> UN Secretary General Antonio Guterres spoke of the climate emergency during his speeches in 2019. Link to the statement is here: <https://www.un.org/sg/en/content/sg/speeches/2019-09-23/remarks-2019-climate-action-summit>

<sup>4</sup> <https://climate.gov.ph/news/381>

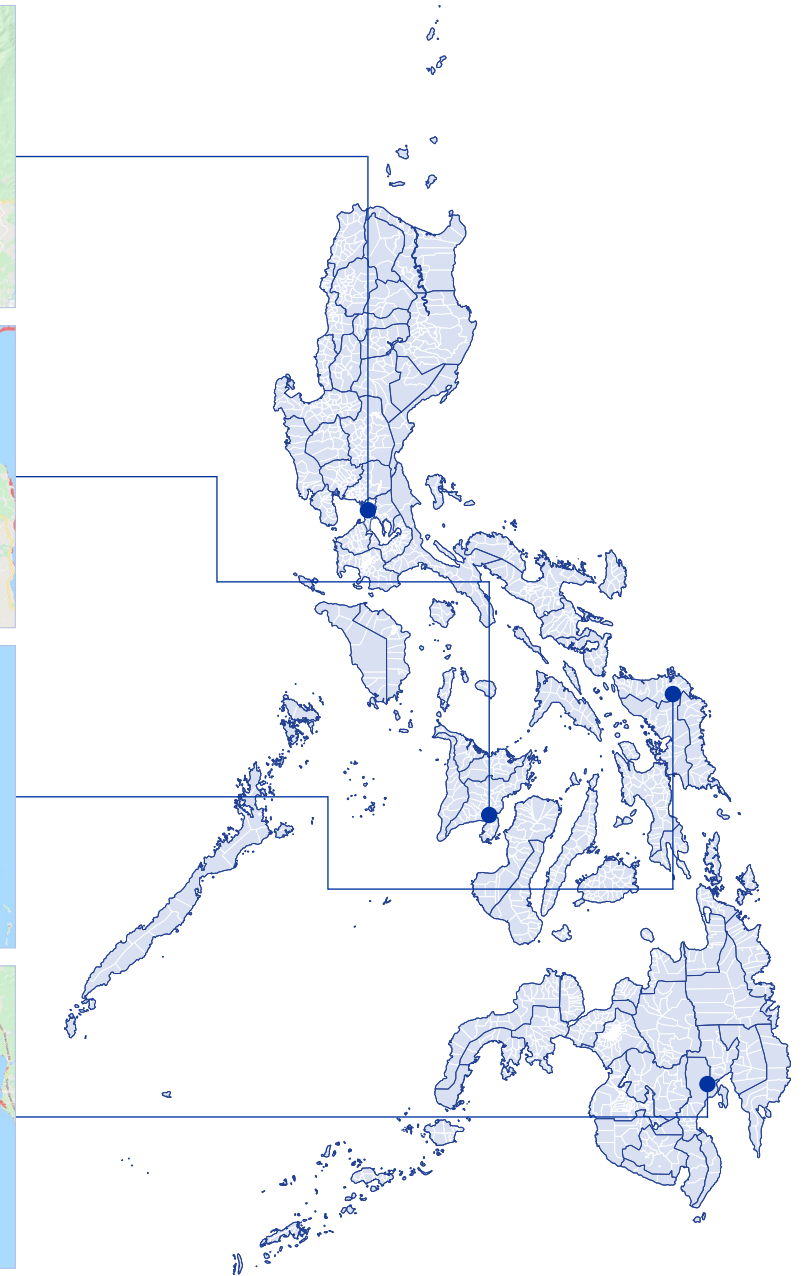


The following cities and provinces were engaged in the community consultations conducted for this report. They were selected due to their high exposure and vulnerability to climate change impacts. These maps from Climate Central show land projected to be below annual flood level in 2040.



According to the Philippine Atmospheric, Geophysical and Astronomical Services Administration, Samar Province will likely experience dry spell.

According to the Davao City Planning and Development Office, Davao City experiences frequent floodings.





# BACKGROUND AND CONTEXT

As more evidence points toward the climate emergency as the apparent and dire threat of our time, it has become one of the most pressing and urgent global issues to be addressed. According to the Intergovernmental Panel on Climate Change (IPCC), a 1.5°C increase in surface temperature is a limit beyond which the climate emergency will bring out destructive consequences (2018).

As an archipelago consisting of more than 7,000 islands with high levels of climatic variation, the Philippines and Filipinos' lives are closely intertwined with environmental migration. The Philippines lies in the world's most disaster-prone, especially cyclone-prone region, averaging 19-20 cyclones, of which 7-9 make landfall every year (e.g. Haiyan 2013, Mangkhut 2018, Goni 2020). Climate emergency impacts exacerbate the already vulnerable geographic status of the nation and bring about more frequent and extreme sea-level rise, extreme weather events, rising temperatures, and heavy rainfall. Sea levels in the Philippines are rising faster than the global average, increasing the hazard posed by storm surges and threatening permanent inundation of low-lying regions (USAID, 2017). Such exposure and high vulnerability affect migration patterns in the country.

60% of the Philippines' 1,500 municipalities and 120 cities are placed along coastal areas. It is projected that in only three decades, several of these areas — now home to at least 8.6 million people — will likely be directly impacted and submerged by sea-level rise and inundation. These areas include parts of Manila, Malabon, Bulacan, Pasay City, cities in Iloilo, Cotabato City, and many more.<sup>5</sup> Also, there are 5.4 million Filipinos

already occupying land whose elevation is below the annual flood level. The physical effects of sea-level rise include inundation of low-lying areas, erosion, salt-water intrusion, increased risk of flooding, and storm damage. In turn, these changes may lead to not only substantial socio-economic losses of coastal structures, but also displacement of the population and shifts in livelihood sources and strategies. As they forge new ways of living, they also face increased vulnerabilities.

To explore and tackle the impacts and solutions of the crisis, various studies have been developed, including environmental migration studies. It was not until the mid-2000s that *environmental migration* emerged at the forefront of migration discourse, mostly resulting from the felt impacts of the climate emergency (Ionesco et al., 2017). Since then, scholarly and policy discourse on migration in the context of the climate emergency has seen a steady growth. This development surfaced the key debates on the topic, which in turn enabled the conceptual grounding of definitions on environmental migration and environmental migrants. The dynamics of environmental migration, including questions on the reasons for migration, migratory trajectory, the profiles of the migrants, etc. have also been explored.

While we know more about migration in the context of the climate emergency now than we did twenty years ago, key areas still need to be unpacked. The internationally accepted definition of an *environmental migrant* is the IOM definition: “persons or groups of persons who, predominantly for reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are

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<sup>5</sup> These were observed from the Coastal Risk Screening Tool of Climate Central. Link to the tool: <https://coastal.climatecentral.org>

obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad”. This definition captures a broad array of issues, including varying motivations of migrants, types of environmental changes faced, direction of movement, and socio-demographic profile, that need closer unpacking (Hillmann et al., 2015; Ionesco et al., 2017). These nuances are also largely contextual; thus, in order to gain a better understanding of the underlying dynamics of migration, one has to zoom into particular contexts.

To this point, Ionesco et al (2017) argue that the regional distribution of research pertaining to the environment-migration nexus remains limited and unbalanced. There remains a lack of understanding around local impacts and issues in certain geographical spaces, as well as limitations in the availability of empirical studies. Citing Piquet et al (2015), the authors highlight that while publications on the environment-migration nexus have steadily increased between 1980 and 2013, empirical accounts, such as case studies, only comprise roughly 50 percent of the total number of publications over the years (Ionesco et al., 2017).



# METHODOLOGY

This report is a preliminary review of the existing evidence regarding migration in the context of the climate emergency. The types of evidence considered include (a) published papers, and (b) exploratory interviews with community members considered vulnerable, as well as with local government representatives from cities that are vulnerable to sea-level rise.

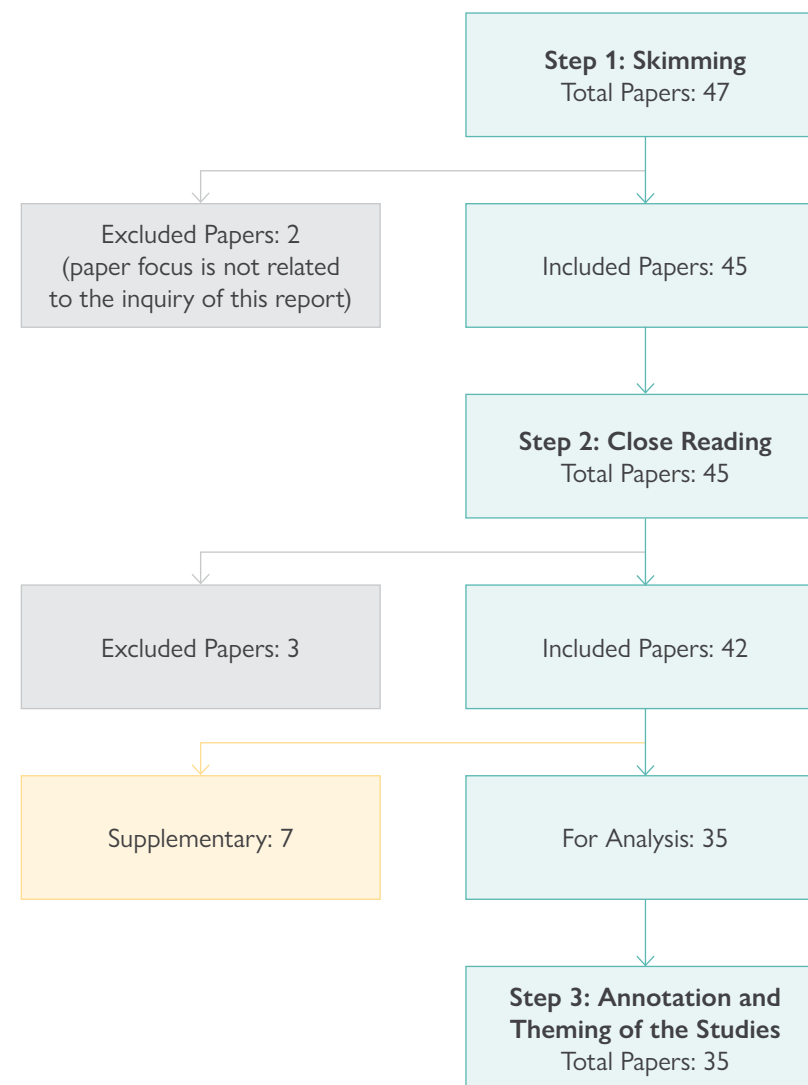
### PUBLISHED PAPERS

Published papers comprise the main evidence base in this report, as they can provide an indication on what themes related to the climate-migration nexus are being tackled by researchers. The types of papers that are included in this preliminary review are publications from the scientific community, as well as reports and applied research authored by think tanks and relevant non-governmental organizations (NGOs).

A total of 35 papers were analyzed. The papers were published between 1999 and 2020 (see Figure 2). Majority of the papers come from the time period 2011-2020, which coincidentally is the same period when some of the biggest climate-related disasters happened in the Philippines.<sup>6</sup> At around this same time,

<sup>6</sup> Some of the biggest typhoons include 2011 Typhoon Ketsana and 2013 Typhoon Haiyan, among other typhoons.

FIGURE 1  
THREE-STEP APPRAISAL PROCESS OF PAPERS INCLUDED IN THIS REPORT



scientists, international organizations, some international media outlets, and some policy leaders changed the rhetoric from “climate change” to “climate crisis”, to underscore the urgency of preventive and adaptive action in the face of environmental changes.

There is a mixture of conceptual and empirical papers included in this report (see Figure 3). Among the empirical papers, majority used qualitative methodologies, primarily case studies. Meanwhile, conceptual studies, which are also qualitative in nature, primarily used narrative literature review.

Majority of the papers included in this research are academic papers (see Figure 4). During close reading, it became evident that there is a lot of opportunity to collate human narratives from qualitative studies undertaken by scholars and published in scientific journals. Some compelling reasons to use these as a way to analyze the human narrative include the following:

- Sampling of empirical studies are purposefully undertaken to reach appropriate representative groups, or to otherwise depict theoretically insightful cases (Major and Savin-Baden, 2011; Patton, 2007).
- There is a narrow focus on specific aspects of the climate emergency and migration — which means that we can get more diverse insights beyond policy rhetoric.
- Validity and rigor of the studies are determined by the scientific communities, on the assumption that the papers went through peer review process or have been vetted by research communities through public presentation or editor review.

Another interesting characteristic of the papers included in this report is the

FIGURE 2  
NUMBER OF PUBLICATIONS — TIME DISTRIBUTION

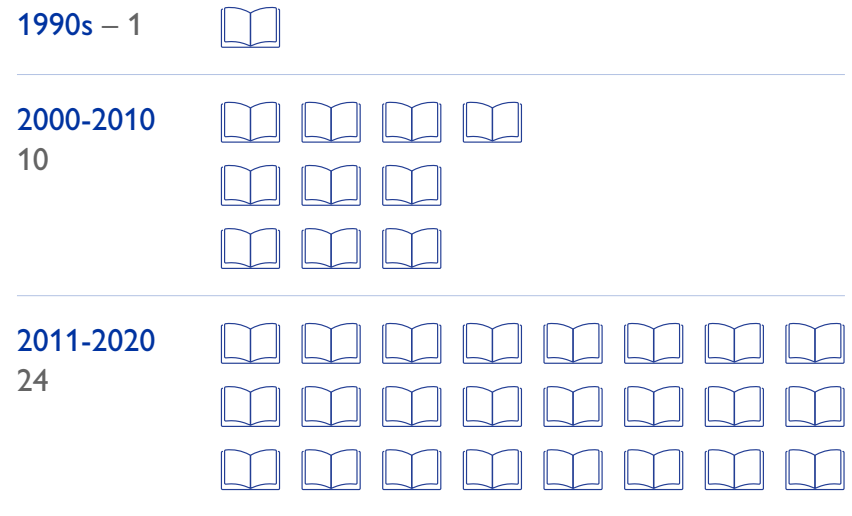
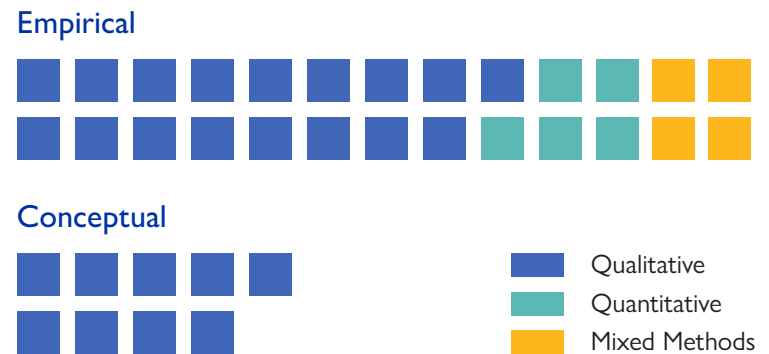


FIGURE 3  
METHODOLOGICAL FRAMEWORK OF STUDIES



diversity of their disciplinary focus. These include agriculture/agricultural economics, gender studies, social justice, geography, migration studies, broader development studies, urban governance and planning, disaster studies, history, security studies, sociology, and statistics. This underscores the impacts of climate emergency across multiple disciplines, and therefore the significance of bringing together these disciplines to put forth scalable solutions to address it.

Finally, the sectoral focus of the studies included in this report include those which are considered as “vulnerable” to the impacts of the climate emergency. These include farming communities, fishing communities, urban poor communities, women, older persons, and coastal dwellers. Conceptual papers had the tendency to be more universal in scope, with a particular focus on the experience of developing countries.

FIGURE 4

### TYPES OF PAPERS

**NON-ACADEMIC 31%**



**ACADEMIC 69%**



<sup>7</sup> Note that these touchpoints with the LGUs and the community are also considered as a way to initiate long-term partnerships and hold sustained conversations with them regarding the climate emergency.

## EXPLORATORY INTERVIEWS

Interviews with selected members of the community and selected representatives from Local Government Units (LGUs) (see Table 1) were also undertaken to explore how their experience may converge or diverge with the literature. The interviews took place between the months of September to November 2020.

**TABLE 1: OVERVIEW OF EXPLORATORY INTERVIEWS**

Sector Represented	Number of Interviews
<b>Local Government Units</b> <i>Davao City, Iloilo City, Malabon City</i>	3
<b>Older Persons (Agusan and Quezon City)</b> <i>through Coalition of Services of the Elderly – COSE</i>	1
<b>Farmer (Samar)</b> <i>through Damayan ng Maralitang Pilipinong Api, Inc.</i>	1
<b>Urban Poor and Women</b> <i>through Damayan ng Maralitang Pilipinong Api, Inc.</i>	2
<b>TOTAL</b>	<b>7</b>

LGUs that were identified as being most vulnerable to sea-level rise (Asian Development Bank, 2017) were contacted, and out of those cities, three responded. These include the city offices of Davao, Iloilo, and



Malabon, where environmental specialists spoke about existing programs to address the climate emergency, the climate-migration nexus in their cities, felt impacts, as well as capacity-building needs.<sup>7</sup> For Davao, the Project Evaluation Officer 4 of the City Planning Office provided insights. For Malabon, the chief of the City Environmental & Natural Resources Office (CENRO) participated in the interview. Both the head of CENRO and the City Mayor participated in the interview for Iloilo City.

Meanwhile, communities that are considered to be vulnerable to climate risk were accessed through grassroots organizations and organized groups that have been mobilizing support for these communities. Community members that represent the older persons, farmers, women, and urban poor agreed to provide preliminary insights. Some of the key themes discussed with them include their personal narratives of experiencing the climate emergency, the felt effects of “climate change” in their lives and livelihood, their experience or observation of the climate-migration nexus (if applicable), the types of support they think are necessary, and the role that they play in championing climate resilience.<sup>8</sup>

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<sup>8</sup> It is important to emphasize the preliminary nature of this report, and that the objective is to provide an initial review and analysis of the existing evidence base, which can later inform the development of a full-blown policy research. Hence, while this report seeks to surface the Philippine narrative, it does not mean to argue that the narratives presented here form a complete picture.



# KEY FINDINGS

The evidence surveyed for this report converged on the following themes: (a) manifestations of the climate emergency and its felt impacts, (b) profiles of people who are vulnerable to the climate emergency, (c) solutions undertaken to manage their vulnerability, which includes migration, and (d) types of support that can be helpful for both the community and the local governments.

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## How does the climate emergency manifest itself to a Filipino?

Majority of the studies describe manifestations of the climate emergency in the Philippines as “increased precipitation” and “increasing temperature,” and in most instances, this has been how the LGUs and the community members described “climate change”. Changing weather patterns and the unpredictability of the seasons have also been emphasized, and are often linked with discussions of the El Niño and the La Niña seasons. The evidence base also shows that a prevailing discussion of climate emergency in the Philippine setting is linked with rapid-onset events (Capili et al., 2005; Chandra et al., 2017; Drabo and Mbaye, 2015; Mendoza et al., 2014; Raleigh and Jordan, 2009; Tadgell), specifically occurrences such as typhoons, flashfloods, fluvial floods, or coastal floods (storm surges).



An IOM responder wades through the flood water in Bustrac, Camarines Sur 3 days after the landfall of Typhoon Goni (November 2020). © Michelle Villariez, IOM Philippines 2021

**“The wind is no longer the same. It has become stronger and more recurrent. In my younger years, when I was in my thirties, storms were nothing like this. Now, we are experiencing almost an average of three typhoons every month.”** — Patricia (Community Organizer, DAMPA)



*Abaca, the main agricultural product of the province of Catanduanes, is laid out to dry by farmers in San Miguel, Catanduanes - one of the worst hit areas by Typhoon Rolly and Typhoon Ulysses (2020). The estimated agricultural damage caused by the typhoons are P600 million pesos, and local government units say that it will take 2 years for their crops to recover. © Michelle Villariez, IOM Philippines 2020*

Findings from the community interviews also reinforce this observation. Most respondents described “climate change” as changing weather patterns, “not knowing when the [planting] season will start anymore”, the changing magnitude of typhoons.

Slow-onset events such as sea-level rise did not surface as much in the evidence base, with the exception of interviews with the LGUs. All three LGUs identify sea-level rise as one of the manifestations of the climate emergency, and as one of the key areas that they intend to address in their local programs. The City of Malabon, for example, already integrates an additional one-meter to existing buffer zones to account for sea-level rise in their infrastructure concepts and models to be climate resilient. This includes models for disaster scenario planning, dikes and zoning of residential areas near the coast.

The felt impacts of the climate emergency manifest primarily in livelihood. For example, increased precipitation and increased temperature have led to productivity losses in farming, fishing, and livestock raising (Basa et al., 2009; Bordey et al., 2013; Capili et al., 2005; Castillo, 2011; Crost et al., 2018; Escarcha, 2018). In a study of water buffalo (carabao) farming in Nueva Ecija, Escarcha (2018) described how water buffaloes tend to be washed to death by flash floods, and sometimes farmers also risk their lives to safeguard their animals. Farmers regard water buffaloes as a critical resource because of their multi-functionality in both farming and household needs (Escarcha, 2018). Meanwhile, fishing communities also tend to have fewer catch because of changing weather patterns, specifically the erratic and unpredictable lengths of monsoon seasons. The fisherfolk rely on the southwest monsoon season (i.e. *Habagat* season) for better catch (Capili et al., 2005; Castillo, 2011).

Evidence also speaks to the gendered nature of the impacts of the climate emergency on livelihood (Bordey et al., 2013; Chandra et al., 2017; Goh, 2012; Mendoza et al., 2014). For example, women leave their homes to pursue non-agricultural work elsewhere, often as domestic help, because of reduced rice productivity in their respective farms. While this drives positive economic results due to remittances, there is a huge social cost including risk of marriage dissolution and negative effects on children’s growth (Bordey et al., 2013). In Mindanao, specifically, it was found that women bear more losses than men, considering that women have additional domestic tasks on top of their role as farmers (Chandra et al., 2017). Women farmers also described how biological factors (i.e. their additional responsibilities for reproductive, aside from productive, labor) have limited their participation in agricultural activities, and misunderstandings about this have systemic effects on pay inequality between genders.

Another aspect that was highlighted in the literature is the co-occurrence of climate emergency and conflict as a result of resource scarcity (Chandra et al., 2017; Crost et al., 2018; Ewing, 2009; Goh, 2012; Kasperson and Kasperson, 2001; Raleigh and Jordan, 2009; Warren, 2013). Ewing (2009) argues that climate risk can stir socio-economic vulnerability and insecurity, which can be a trigger for wider security threats. On that note, it is important to expand the discourse on security to include climate impacts, considering that these can exacerbate conflict due to rising inequalities (Ewing, 2009). Likewise, propensity for violence and armed conflict has been observed in chronically vulnerable areas (Raleigh and Jordan, 2009). In an empirical study of 79 provinces in the Philippines, Crost et al (2018) found that rainfall is a robust predictor for conflict intensity, especially in rice-producing provinces. They found that above average rainfall during the monsoon season is associated with more

conflict-related incidents, and an unusually rainy wet season can make it easier for non-state armed groups (NSAGs) to recruit in rice-growing regions (Crost et al., 2018).

Majority of the evidence also emphasized the cascading and systemic impacts of the climate emergency on various facets of a person's life, both at the individual and community level (Gemenne and Blocher, 2017). These can include health impacts in the form of heat strokes and vector-borne diseases, as well as material impacts such as damage to houses and other structures. These can further lead to forced displacement or voluntary mobility of people, and in turn drive non-material costs to the household and family structures (Capili et al., 2005; Fernandez et al., 2019; Goh, 2012; Kasperson and Kasperson, 2001; Murphy and Tembo, 2014; Porio, 2011, 2016).

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## Who is vulnerable to the climate emergency — who are the humans behind the data point?

The evidence base was also consistent in providing a perspective on which sectors are more severely impacted by the effects of the climate emergency. Sector-wise, farming and fishing communities are severely impacted (Basa et al., 2009; Bohra-Mishra et al., 2017; Capili et al., 2005; Castillo, 2011; Crost et al., 2018; Escarcha, 2018). During an interview, a farmer representative from DAMPA Inc., described some of the challenges that farmers face:

**“The effect of climate change on farmers is huge. We can no**

**longer predict the weather. You can no longer say it is the rainy season. Sometimes it rains on a very hot day. The Department of Agriculture (DA) provides guidelines for the farming seasons, but we really cannot follow that anymore. Even for fisherfolk, there is a huge danger. They would go to the sea and then suddenly, the weather will turn. That happened to my nephew, he and his boat ended up drifting off course and ended up in Leyte [from Samar]. That happened because they did not prepare, considering that they did not know that the weather will be like that.”** — Marlon (community organizer and farmer)

There are also gendered impacts of the climate emergency, and in most instances, women are more vulnerable than their male counterparts. These vulnerabilities are underscored by their roles as caregivers to family members, in addition being income-earners. In conflict-prone areas, women also sometimes take over the role as sole breadwinners for their families, especially in cases when their partners fall victims to conflict (Chandra et al., 2017; Goh, 2012). When climate change affects the livelihood capabilities of individuals in a vulnerable sector, one adaptation strategy is for a family member to seek temporary work outside of their community. In instances when male family members leave, cases of reverse remittances have been recorded — where females are compelled to undertake additional jobs to help their partners who have migrated to another city. Meanwhile, in instances when female family members leave, it was observed that they lose decision-making rights regarding where/how their remittances will be invested, because they rely on their male representatives to implement and manage the remittances (McKay, 2005). The community members attest to this finding as well, citing examples when women needed to find ways to supplement the income of their husbands.

Older persons are also considered vulnerable, given the physical constraints on their movement, and because of additional roles they have to undertake as *taong-bahay* (i.e. someone who is left at home). Their needs during a calamity are also specific, and often, disaster response frameworks/protocols do not take these into consideration. A representative from the Coalition of Services of the Elderly, Inc. (COSE) emphasized this:

**“Providing support to the older persons during climate-related disasters should be thoughtfully done. Their needs are very specific. For example, you cannot just feed the older person with noodles and sardines [which are common relief goods]. You have to provide nutritious food — like oatmeal, fruits, and also provide vitamins. During climate emergencies, another related factor is that senior citizens are given the additional responsibility of taking care of their grandchildren, which increases their risk.”** — Emily, COSE Executive Director

In terms of social safety nets, COSE also shared that majority of the older persons who suffer economically are those who do not have access to social benefit pensions. Moreover, in the more recent context of having compound risk due to climate emergencies and the COVID-19 pandemic, COSE has experienced seeing children of an older person lose their jobs, which resulted to “lack of support/inability to provide the basic needs of the older member of their family”. In this instance, some older persons skip their maintenance medication due to lack of finances. It is not uncommon for the older person to suffer in terms of nutrition. In a rapid assessment undertaken by COSE, they note that some older persons only eat twice a day, and the quality of the food that they eat is also decreasing.

Urban poor people, especially those who live in coastal or riverine areas, are also severely affected because of low adaptive capacities to manage the impacts of the climate emergency. The location of their houses is one indicator of vulnerability, although studies have also emphasized that this is often enabled by the unintended consequences of policies that favor economic development at the expense of community development. For example, in a study of governance reforms in social housing in Quezon City and Marikina, Porio (2016) found that informal settlers were relocated to housing developments in degraded and flood-prone lands, and the price of land continued to rise despite the exposure to hazards. This is also reinforced by the experience of community members interviewed for this report, who mentioned that moving to a relocation site sometimes meant moving “from danger zone to death zone”:

**“Some of our community members in Quezon City relocated to Bulacan. This was partly because of a demolition in the community due to the creation of a retaining wall in the creek. Many of the community members refused to leave, because the relocation is context-insensitive. While it removes the physical risk from living in coastal or river areas, it does not remove social insecurity, which includes being located too far away from their workplaces, and the effect on some women and children, including rape, prostitution, and being driven to street begging. Imagine, this is moving from danger zone to death zone. Aside from this, the houses in relocation sites are often made of substandard materials. Also, people who are relocated must travel a long way from Bulacan to Metro Manila, and their commute (transportation) expense already eats up about 50 percent or more of their daily income.”** — Cherry (Community Organizer, DAMPA)

Meanwhile, in a case study in three towns in Quezon Province by Gaillard et al (2007), incidences of corruption and political control by the local elite were also observed. They found, specifically, that illegal logging activities continue to persist despite legal ordinances that ban it. More importantly, they also found that in this instance, the economic elites and the politicians are the same -- and therefore, logging is legitimized (Gaillard et al., 2007). The same experience is echoed in a case study in Laguna (Mendoza et al., 2014), wherein low-income households, agriculture-dependent households, and informal settlers who live along the lakeshores of Laguna de Bay or other waterways like rivers and irrigation canals are considered vulnerable. Ultimately, these groups with low adaptive capacities are made to deal with risks that the system imposes on them, alongside the shortcomings of some policies that are created without effective consultative mechanisms.

impacts of the climate emergency. The differentiating attributes between people who undertake voluntary and involuntary adaptive strategies include their income status, gender, age, health, and access to support systems through their social and community networks.

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## What solutions do they undertake to manage their vulnerabilities?

People affected by the climate emergency undertake various coping mechanisms to manage their vulnerabilities. In some instances, such mechanisms are consciously planned, while in others, they become a forced choice. This report makes the distinction between the two as *voluntary* and *involuntary* adaptive strategies. On the one hand, voluntary adaptive strategies are developed and planned by people with the capacity to exercise their agency in making decisions to manage their vulnerabilities. Meanwhile, those who undertake involuntary adaptive strategies have limited agency in making decisions to address the negative



## VOLUNTARY ADAPTIVE STRATEGIES: COMMUNITY ORGANIZING AND MIGRATION

Both types of evidence examined point towards two prevailing modes of voluntary adaptive strategies: community organizing and specific types of migration, namely, permanent and circular migration.

### COMMUNITY ORGANIZING AS A VOLUNTARY ADAPTIVE STRATEGY

As a grassroots community organization, DAMPA aims to create sustainable modes of living for communities through livelihood programs, and by enhancing collective social safety nets through a community resilience fund. Their community programs are co-designed with the people on the ground, with the aim of helping people live a life with dignity:

**“In four places where DAMPA has a presence [Manila, Quezon City, Samar, Leyte], we have pioneered the creation of a community resilience fund. Every person who is a part of our community will contribute 10PHP per week, and this will go into a secure common pool that we can tap in case the community needs it. This resilience fund is also connected with our food bank, where our members can buy food and basic supplies at lower prices, and**

**the profits earned will be reinvested into our resilience fund.”** — Cherry (community organizer, DAMPA)

**“The [profits] gained from our food bank are divided into the following expenses: reinvestment in the operations, emergency and disaster response, in medical emergencies, our burial [in case we die], and also in putting a percentage of the money back into capital. This is still on top of our pooled savings of 10PHP per week. This is the current journey of DAMPA [in ensuring that we are resilient] as a community organization.”** — Patricia (community organizer, DAMPA)

**“All our programs have to be context-sensitive. We engage the barangays to also champion our cause. As a leader, I also really encourage our community to be entrepreneurial. To empower our community members, they need to have the ability to earn a living. Another way to do this is through proper skills mapping of the community members. This is a dream for most of us community organizers — that every barangay will have an appropriate skills mapping of the community members which can be matched against jobs, perhaps in the**

**business sector. Since many of our community members also have children, it will be important to have a safehouse [halfway house or similar facility] where the children are protected from harm, and so that women feel secure that their children are okay and they can become empowered to take a job that can earn them a living. To my knowledge, there is no ordinance like this at the barangay level. But this will be one way to empower women and decrease their vulnerability.”** — Patricia (community organizer, DAMPA)

COSE also undertakes the same approach to managing the vulnerability of older persons. The interviewee emphasized that older persons are often considered as mere beneficiaries of assistance. However, they actually tend to have very creative ideas on how to become more resilient, given that they understand and are immersed in vulnerable settings. COSE thus provides support to local Senior Citizen’s Associations (SCAs), either to help strengthen existing SCAs or to help establish SCAs in certain barangays. In many instances, these SCAs have led specific projects and programs on disaster risk reduction and management:

**“The older persons are the ‘best resource’ when it comes to disaster risk reduction and**

**management planning, especially on hazards mapping, where to evacuate, among others. Local and indigenous knowledge have been really helpful. Their engagement is extremely important because they are the most affected. They are often the ones left in the house, sometimes even staying with their respective grandchildren. COSE has witnessed certain examples of older persons supporting one another. One example is the “buddy system” wherein older persons pair up with one another to ensure that everyone is accounted for. This proved really helpful during a typhoon in Bukidnon. Another example was in Davao, where one initiative of an older person enabled members of the community to be rescued amid flooding. In this instance, an older person used a rope attached to a pole to help other people move to a safer space despite the floods.”**

— Emily (Executive Director, COSE)

Also, older persons were able to create solutions to address the climate emergency (Clarke, 2014): some initiated small-scale circular economies. For example, plastics are recycled to become sources of income. In Quezon province, they have tree planting initiatives. In Bulacan, older residents undertook pocket gardening as a source of both nourishment and additional income. They also have projects for waste

management. These projects also provide a form of psycho-social support, helping older persons feel less isolated. Note that older persons prefer to still work, both for reasons of income as well as a source of dignity. “It is a personal choice to still work due to dignity,” according to Emily. Majority of the older persons are still engaged in livelihood projects, especially those in the rural areas. Most of them belong to the farming demographic, and thus experience the effects of the climate emergency quite strongly.

### PERMANENT AND CIRCULAR MIGRATION AS A VOLUNTARY ADAPTIVE STRATEGY

Based on the literature review, migration is one of the strategies adopted by vulnerable sectors to cope with the impacts of the climate emergency on their livelihoods. Migration was described in different ways, and the literature cautioned on the importance of differentiating between types of migration, as there is no single profile of a migrant.

To this end, some of the literature also questions the term “environmental refugee” because it tends to oversimplify the complex relationship between human agency and the multiple factors that affect migration (Tacoli, 2009). Thus, establishing a climate

or environmental refugee status can result in a narrow and biased debate, and may provide only partial solutions to address the complexity of human mobility in the context of the climate emergency.

A population study also found that despite wide coverage of reports warning about massive potential flows of “climate change refugees”, there remains a surprising lack of empirical evidence to support these claims (Black et al., 2008). It is therefore prudent to argue that the process of climate-related shocks and stresses leading to migration is not simply a linear or causal relationship. Many other factors play into the nexus between environmental factors and migration. Furthermore, a distinction must be made between different types of movements, which can include permanent, circular, distress, and relocated migrants (Raleigh and Jordan, 2009).

Permanent and circular migrants belong to a group which can be considered as having high adaptive capacities. Permanent migrants are those who move to another place (within country or abroad) with the intention of starting a new life in their destinations. These are the people who mostly have the highest adaptive capacities, and most of them have the ability to leave their respective places of origin even before environmental impacts are directly felt.

In a study on Filipinos who permanently migrated overseas, it was found that they play an important role as transnational activists who can provide humanitarian assistance to Filipinos who reeled from losses due to Typhoon Haiyan (Mosuela and Matias, 2015). They readily mobilized resources and remittances to help certain communities, regardless of familial relationships or lack thereof. These findings reinforce the importance of migrant communities in creating/supporting adaptive capacities among people situated in more climate-vulnerable areas. Furthermore, they indicate possible pathways in which environmental change and migration may be indirectly linked with one another.

Permanent migration was also mentioned in the community interviews, including narratives of male family members who initially settled in Metro Manila, and then eventually brought their entire family once they were able to settle in and find stable jobs.

Meanwhile, circular migration is the recurrent narrative seen in the evidence base. Circular migrants are those who move temporarily to another place with good employment opportunities so that they can earn alternative means of income (Castillo, 2011; Escarcha, 2018; Hugo, 2011; Tacoli, 2009). Often, circular migrants come from rural areas, where agricultural yield or fish catch is low because of changing weather patterns. These people

temporarily seek employment as construction workers (for males), and as domestic househelp or sales workers (for female migrants). Raleigh et al (2010) argue that circular migration tends to be a prevailing consequence of chronic disasters such as prolonged droughts and unstable dry and wet seasons. These migrants bring in remittances to their respective families.

The community interviews also highlighted this aspect of migration in the context of the climate emergency. For example, Marlon, a farmer and community organizer, reported that some farmers from Samar would just sell their farmland and go to Manila to look for a job. They work there, in the “ciudad” [city], because there is no income in their province. In Manila, where Patricia is a community organizer, she mentioned that they have a couple of members who migrated from various provinces. They are currently employed in shopping malls as sales workers or as errand runners [colloquially known as “boy”], while there are others employed as security guards, pedicab and tricycle drivers, among others. There are varied stories of migration — sometimes they come alone, while sometimes they bring their families with them. It is also not unusual that younger migrants tend to send money to their respective families in the provinces.

## INVOLUNTARY ADAPTIVE STRATEGY: DISTRESS MIGRATION AND RELOCATION

Involuntary adaptive strategies include very specific types of movement, such as distress migration and relocation. Raleigh and Jordan (2009) distinguished migration patterns in response to environmental degradation, and highlighted distress migration. Distress migration occurs as a result of rapid-onset climate events which lead to disasters. Distress migrants are those who are forced to evacuate their living spaces for a period of time. In many instances, these are informal settlers who live along coasts and riverside areas (Perez et al., 1999; Virola et al., 2008). However, as soon as the situation settles, they go back to their places of origin.

The literature reviewed in this report did not specifically discuss why this is the case, but it touches somehow on the behavior of the people affected. For example, in a survey of 300 households in the flood-prone CAMANAVA (the cities of Caloocan, Malabon, Navotas, and Valenzuela) region in the Philippines, Porio (2011) found that to adapt and prepare for floods and typhoons, vulnerable populations move their household appliances to higher places and store food supplies. Others evacuate to their neighbors or relatives' houses, or to the community hall. Those who regularly experience tidal/storm surges have "adapted themselves over the years by just packing their clothes in boxes, tying and raising their furniture and appliances to the higher parts of their homes

through a makeshift pulley" (Porio, 2011).

This cycle of distress migration is also reflected in the interviews. For example, in Davao, the LGU observed that the city population tends to increase at the peak of rapid-onset climate events.

**“Informal settlers fill the city. The city still accommodates the informal settlers and addresses their needs, although this can sometimes disadvantage the city because it has to provide more.”** — Davao City

Representative

Community members from DAMPA in Manila also described that during the peak of typhoons or non-stop rain, many of them are forced to evacuate to the compound of the Philippine Coast Guard to have a semblance of safety. Noting that the evacuation centers cannot hold all of them on a permanent or long-term basis, and that people's lives have to continue, and they have to seek means of livelihood after a calamity, the natural tendency is to go back to their respective homes, regardless of the future risk it imposes.

Another involuntary adaptive strategy occurs through systemic relocation of vulnerable populations. While relocation has positive intentions of removing people from risk-prone areas, relocation

projects tend to focus on one factor, such as physical risk from climate events, and overlook the other aspects of the lives of the relocated migrants. Studies about relocation of informal settlers often pointed to this problem of the lack of context-sensitive development policies, poor access to livelihood and basic services necessary to live a life of dignity, and the overall failure to address intangible losses as a result of relocation (Black et al., 2008; Murphy and Tembo, 2014; Porio, 2011, 2016; Raleigh and Jordan, 2009; Tadgell et al., 2017). Evidence from the field echoes this finding, from the side of both the community and the local governments.

For example, DAMPA community organizers explain why some people refuse to relocate, and how risks compound even when they are already relocated:

**“We advocate for in-city relocation, as much as possible. People should not be located too far away from their source of livelihood. Relocation is better done if it is within the city, if there is onsite development.”**

— Patricia (Community Organizer, DAMPA)

**“Imagine this scenario: people are relocated from Manila to Bulacan. If a construction worker earns a daily wage of 400PHP, and**

**they have to spend 200PHP on their transportation one way, what else is left of them? A lot of people who have relocated sometimes resorted to prostitution, some of them become victims of rape, and some children have to resort to street begging. The reason is that not all agencies are present — everyone should be there, DOH, DILG, DepEd, so that they can provide policy interventions that will help these people transition well to their new environment. Another reason we do not want to relocate is because of the substandard materials used in the new houses. I really think that in-city relocation is better, and when relocation projects are done, the community is engaged so that those implementing relocation will understand their context, their constraints, and their states of life. Look at the entirety of the issue, give voice to the children, the elderly, the women, the LGBTQ.”** — Cherry (Community Organizer, DAMPA)

**“In Samar, we have a relocation project in partnership with the Vincentian priests. They are helping us with our project of relocating vulnerable families to safer spaces, and our target are 86 households. This**

**project takes into consideration the livelihood sources of the people.”** — Marlon (Community Organizer, DAMPA)

The cities engaged in this report do mention that they are also looking at better implementation of relocation projects. In Davao, those living in the coastal areas and riverbanks are considered as vulnerable, but there is a tendency to not move, even if the government advises them to. The reason people prefer not to vacate their current residences is because relocation is made at the expense of proximity to their livelihood and access to basic services. As a result, the city is considering the provision of complete facilities in the relocation sites — although this does not come without challenges, especially because “there might not be enough legroom to accommodate everyone.” In the city of Malabon, in-city relocation models are also used in their relocation projects, with due consideration of access to their livelihood.<sup>9</sup> In the city of Iloilo, mobility programs are also a part of their adaptation measures, specifically with the relocation of informal settlers from Dungon Creek to Iloilo River Plains (Subdivision Phase 1), which is considerably farther from coastal and river areas. Under this program, they are given new houses and access to water and sanitation.

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<sup>9</sup> From Public Information Office of Malabon: <https://malabon.gov.ph/malabon-homes-becoming-a-model-in-city-relocation-community>

It must also be highlighted that relocation often has negative connotations. While LGUs are usually well-intentioned in moving the vulnerable sectors away from hazard-exposed areas, a myopic approach to relocation persists. This was recurrent in the narratives of Patricia and Cherry, who described relocation as being “context-insensitive” and lacking a holistic approach which equates human dignity not just to living in physically secure spaces, but also in socio-economically secure spaces. Some studies in the relocation literature also confirm this shortcoming in implementation and vision, which often accounts for unsuccessful relocation projects (Nalau and Handmer, 2018; Tronquet, 2015). Still, this does not necessarily mean that relocation projects cannot be used as a successful policy instrument to increase the adaptive capacities of vulnerable sectors. Nalau and Handmer (2018) underscore the importance of planned relocation as an adaptive strategy to cope with both rapid-onset and slow-onset climate events.

Although the literature included in this report does not highlight successful cases of relocation projects in the context of the climate emergency, community narratives show that when done in collaboration with the community, there is a higher chance of

success. For example, Marlon in Samar highlights one of their pilot initiatives to move families who live in mangrove areas to higher locations that are not flood-prone. They have partnered with the Vincentian priests to acquire land and provide a self-sustaining, self-sufficient community that will house about 86 families. At the time of writing, they are still working on the project, and waiting for the land title to be transferred. Marlon describes the area to be about 1.7 hectares in a safe location with higher elevation, and they are targeting about 86 households. They make the payment terms more accessible, and in the words of Marlon, “people can plant there, and they can make a living there.”

The Philippines can also look to some positive examples of successful relocation of climate-vulnerable sectors. An IOM case study highlights the positive example of relocating 150 inhabitants from Vunidogoloa to Kenani in Fiji, a country in the Pacific, which, similar to the Philippines, is constantly exposed to climate risks, including sea-level rise, and disasters that emanate from natural hazards. The case study highlights the success factors of the relocation project, citing: “(1) proactive and participative attitude of the population, facilitated by the procedures followed by the government; (2) a comprehensive approach increasing the resilience of the community, improving its living conditions but also offering new economic opportunities, ensuring

both food security and new income-generating activities; and (3) social support provided by the local and regional religious authorities.”(Tronquet, 2015). Such determinants of success are consistent with the advocacy of the community, and to an extent, are also acknowledged by the LGUs considered in this report. When done in a contextually grounded manner, and with strong community engagement, planned relocation projects can be a pathway towards managing climate vulnerabilities, and can also evolve to become a voluntary adaptive strategy. Frameworks for using planned relocation as a positive adaptive strategy also exist at the global level (UNHCR, 2016), which can be used as a reference point for the Philippines.



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## What types of support can be helpful for the community and the LGUs?

A common theme that recurred in the evidence, particularly the interviews, centered on the types of support that can be helpful in managing vulnerability amid climate risk. The three LGUs and the community members have different, albeit related, ideas for support.

### SUPPORT NEEDED AT THE LGU LEVEL

Most of the LGU representatives identified technical training in mitigation strategies, in relation to biodiversity programs and the use of renewable energies. Many of the forms of support identified are still technology- and infrastructure-oriented, and there is little emphasis on the human-centered approach. In certain instances, however, the LGU representatives did identify some forms of support that were linked to human-centered approaches, including:

1. **The need for data.** Most LGUs noted that data will be important to guide their interventions and programs. The types of data that they considered lacking relate specifically to climate metrics, and did not initially identify the broader need for undertaking data collection on migration and other human behaviors and social impacts. Davao, for example, talked specifically about a greenhouse gas inventory, and the need to explore some proxy data that can help them

with analysis. Likewise, Davao mentioned the need for in-city studies, to capture more closely the nuances of city programs in relation to the climate emergency. Of all the three LGUs, Iloilo presented some migration-related data that can give insights on the social impacts of the climate emergency. Davao City's Forest and Land Use Planning unit recently conducted a study which provided a short analysis on migration pull and push factors. The push factors that may be tangentially linked with the climate emergency include: the peace and order situation, lack of employment opportunities, disasters, and the prevalence of slash-and-burn agricultural practices. Meanwhile, Malabon mentioned that data specific to climate and migration is not available, although they do have some data regarding movement of people. Still, the existing data across the LGUs are limited in allowing a deeper analysis into the climate-migration nexus, and the overall social impacts of the climate

emergency. This is also observed in a recent study on Philippine human mobility by GIZ (Vinke et al., 2020).

2. **Increased and more nuanced trainings targeting long-term impacts.** The LGUs also mentioned the need to review the types of training they receive, and the ability to transform their new capacities into something that has long-lasting effects for their community. To this end, they mentioned that there are already a lot of trainings available in different thematic areas related to the climate emergency. However, these are rarely translated into longer-lasting impacts. It will be important to help build the capacities of LGUs through more immersive types of training, and also to review training designs so that they more accurately translate into LGU-wide learning, rather than just knowledge lodged in one unit or person.

3. **The need to revisit information and awareness campaigns.** The LGUs also emphasized support for information awareness campaigns and advocacy, specifically the need to reconsider existing designs. They mentioned that often, information and awareness campaigns remain as knowledge, but do not translate to a change in behavior. For example, Malabon mentioned that they have been working on educating the people about the need to address the climate emergency, but the more challenging part is ensuring that the people do not just know what the climate emergency is and what can be done about it, but that they actually consider themselves as active players who can be a part of the solution. One way to do this, according to the LGU representative from Malabon, is to partner with schools and universities to help engender greater support, and in turn generate positive changes in behavior.

## SUPPORT NEEDED AT THE COMMUNITY LEVEL

Community members advocate types of support with a holistic approach to understanding the implications of the climate emergency. They also emphasized the importance of partnership and collaboration with policymakers and related organizations in helping manage their vulnerabilities.

1. **Better and more grounded understanding of the impacts of the climate emergency.** A gap remains in the current understanding of the climate emergency, due to three factors: the kind of language used is not easily relatable; the direct impacts are not clearly articulated; and there is

limited participation of vulnerable sectors. Community members specifically raised the importance of showing how the climate emergency impacts the lives of the vulnerable sectors, as this will help close the gap between scientific knowledge and public knowledge. Connecting the dots between scientific knowledge on climate and the real, tangible social and economic impacts of the climate emergency will help to stir a more in-depth and reflexive discussion on what solutions can be put in place to manage vulnerability.

2. **Partnership and collaboration to manage vulnerabilities.** The community members who

were interviewed mentioned that when policymakers and organizations create interventions to capacitate a community, it is important that the solutions are done in collaboration with the community itself. This specifically connects with relocation projects as one of the ways to reduce their vulnerability (Barnett and Webber, 2009). As expounded above, in-city relocation is preferred, and it has to have a holistic approach that does not only look at one aspect of the risks they face, but the overall impact of moving to a new site and with conscious consideration of how they can live a more socio-economically dignified life.



**ANALYSIS OF THE FINDINGS:**

**ADVANCING A PRELIMINARY FRAMEWORK**

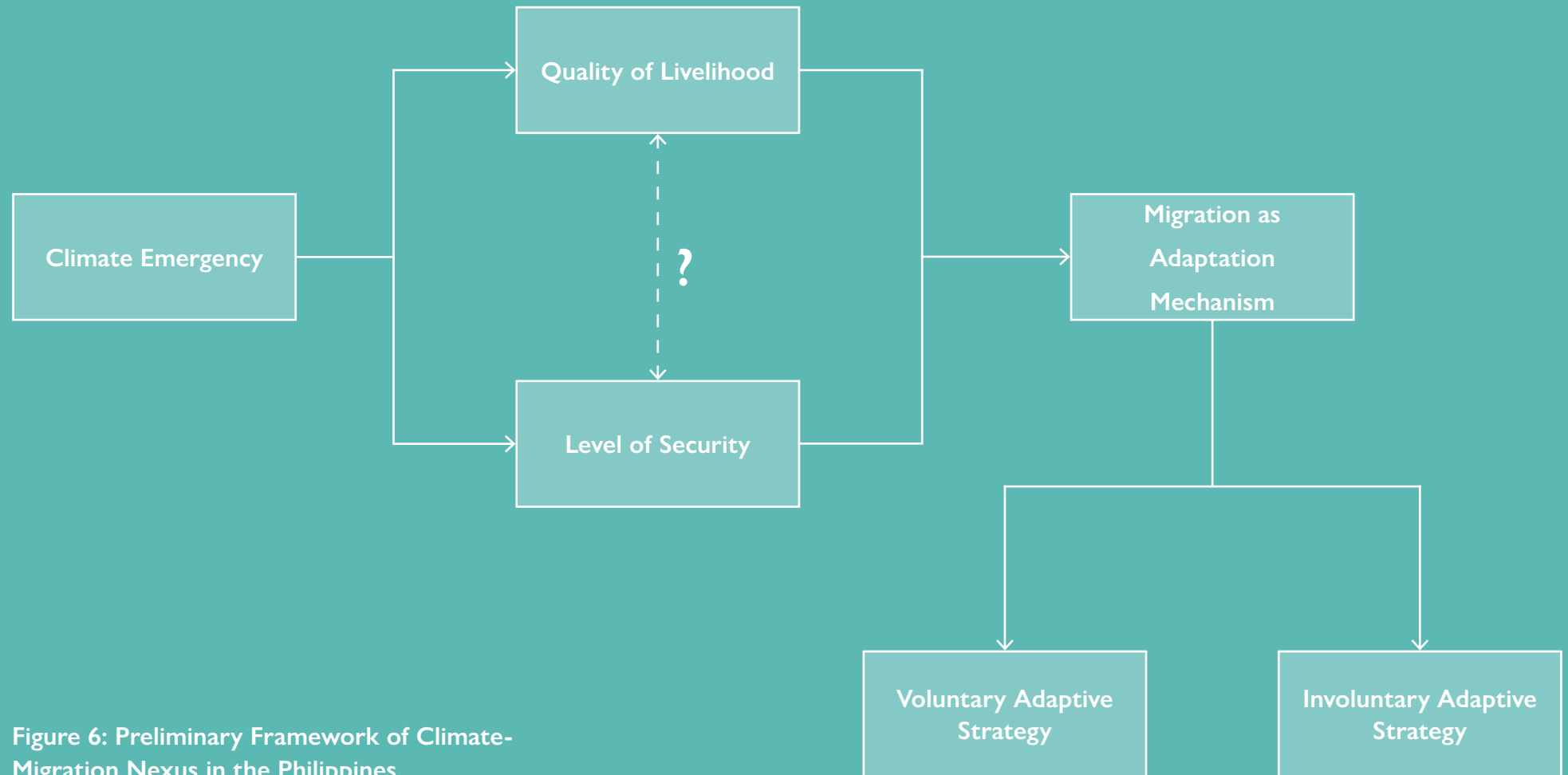
**OF CLIMATE-MIGRATION NEXUS**

The discussion of the evidence base above provides an initial snapshot of how the climate emergency affects Filipinos, with emphasis on the vulnerable sectors, and the different ways in which they manage such vulnerabilities. Migration is found to be one of the coping mechanisms of affected people, manifesting as either a voluntary or involuntary adaptive strategy.

To frame how migration occurs in the context of the climate emergency in the Philippines, two preliminary findings are advanced in this report:

1. The relationship between the climate emergency and migration is mediated by the quality of livelihood as well as the level of security. Specifically, the more that the climate emergency affects the quality of livelihood and the quality of peace and stability in a certain place, the more that people are driven to undertake migration as an adaptive strategy.
2. There are various profiles of migrants in the context of the climate emergency, and each profile implies a specific type of adaptive strategy. Permanent and circular migration occur as *voluntary adaptive strategies*, while distress and relocated migration occur as *involuntary adaptive strategies*. As a result, policies, programs, and research will benefit from understanding the nuances of these various profiles, so that any intervention or inquiry is sensitive to the needs of the vulnerable sectors.

**FINDING 1: THE RELATIONSHIP BETWEEN THE CLIMATE EMERGENCY AND MIGRATION REPRESENTS THE NEED FOR MORE EVIDENCE CORRELATING LIVELIHOOD AND LEVEL OF SECURITY**



**Figure 6: Preliminary Framework of Climate-Migration Nexus in the Philippines**

Figure 6 illustrates a preliminary framework of the climate-migration nexus in the Philippines, based on the evidence examined in this report. The preliminary framework expounds on some of the underlying mechanisms that lead people to consider migration as a way to manage their vulnerabilities in the face of the climate emergency:

1. The relationship between the climate emergency and migration is mediated by the quality of livelihood as well as the level of security.
  - a. The climate emergency as a concept is perceived more tangibly by the people affected by it through increased precipitation, increasing temperature, and rapid-onset climatic events, including typhoons and various types of flooding. This can also include slow-onset events, including drought and sea-level rise.
  - b. Quality of livelihood is defined in this report as the ability of the people to sustainably earn a decent living. The climate emergency directly impacts the livelihood prospects of Filipinos, as a result of increased precipitation and temperature and unstable weather patterns. This is more specifically felt in agricultural and fishing communities.
  - c. Meanwhile, level of security is defined in this report as both security from natural hazards and security from human-induced hazards. An obvious effect of the climate emergency on security of living spaces is the risk of breakdown of the physical infrastructure as a result of climate risks. However, the literature

also points to conflict propensity and conflict intensity, especially in rural agricultural areas, as among the effects of the climate emergency. Specifically, the climate emergency can lead to resource scarcity or resource imbalance, and ultimately fuel conflict. As a result, level of security is defined according to the quality of peace and stability in climate-vulnerable areas.

2. Another critical point of reflection is whether quality of livelihood and levels of security, specifically in terms of conflict propensity and intensity, moderate each other (see broken line between “quality of livelihood” and “level of security”). Though not discussed<sup>10</sup> in the report, it is possible that decreasing quality of livelihood can affect the level of security including extent of peace and stability. This, ultimately, can strengthen the mediating link between the climate emergency and migration as an adaptation strategy.
3. The greater the impact of the climate emergency on quality of livelihood and the level of security, the more people are driven to undertake adaptive mechanisms. Evidence shows that migration is used as an adaptation mechanism, through voluntary or involuntary adaptive strategies.
  - a. Voluntary adaptation strategies are consciously developed and planned by the people, and they allow them to make decisions to manage their vulnerabilities. This can take the form of community organizing or migration. Where migration is used as a voluntary adaptation strategy, the specific types of migration observed are

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<sup>10</sup> It was instead implied in the studies of Crost et al (2018) and Ewing (2009).

*permanent migration and circular migration.*

- b. Involuntary adaptive strategies can be described as forced strategies undertaken by vulnerable populations. In this regard, people have limited power in making decisions and undertaking actions to address the negative impacts of the climate emergency. Involuntary adaptive strategies can take the form of migration, specifically, *distress migration* and *relocation*.
- c. The differentiating attributes between people who undertake voluntary and involuntary adaptive strategies include their income status, gender, age, health, as well as the availability of social networks that can provide a support system.



**FINDING 2: THERE ARE VARIOUS PROFILES OF FILIPINO MIGRANTS IN THE CONTEXT OF THE CLIMATE EMERGENCY, AND EACH PROFILE IMPLIES A SPECIFIC TYPE OF ADAPTIVE STRATEGY**



**Figure 7: Profile of Filipino Migrants in the Context of the Climate Emergency**

**LEGEND**

- PM** Permanent Migrants
- CM** Circular Migrants
- RM** Relocated Migrants
- DM** Distressed Migrants

*Size of the circle is indicative of assumed population size*

Figure 7 visualizes the profile of Filipino migrants in terms of their adaptive capacity on the one hand, and their propensity to extend support to their communities on the other hand. The framework particularly surfaces four types of migrants: (a) permanent migrants, (b) circular migrants, (c) relocated migrants, and (d) distress migrants. The key points in the framework are:

1. The groups that undertake voluntary adaptive strategies, permanent and circular migrants, are assumed to have high adaptive capacities, and have a high propensity to extend support to the communities they left.
  - a. Migration as a voluntary adaptive strategy is specifically undertaken by those who have privileges and greater capacities as a result of their gender, health, age, and the presence of a social support system in their destination. In particular, young and healthy males, who also have support networks such as family, friends, or related social support in their destination, are more likely to be successful in their pursuit of migration as a way of coping with the effects of the climate emergency.
  - b. These migrants have a high propensity to extend support to the communities they left, specifically through remittances. Permanent migrants have a higher propensity to help in comparison to circular migrants. There have also been instances when circular migrants received reverse remittance from their families in the places that they left because of high costs of living in their destination cities.
  - c. There is an overlap between the population of permanent

migrants and circular migrants because in some instances, circular migrants can later become permanent migrants. This is often true for individuals who bring in their families to their new place of work as soon as they are able to find more stable sources of income.

2. The groups that undertake involuntary adaptive strategies, including relocated migrants and distress migrants, are assumed to have low adaptive capacities and a low propensity to extend support to the communities they left.
  - a. Distress migrants and relocated migrants are often informal settlers, coastal dwellers, and those who come from low-income households. Females, older persons, those with health constraints, and those who do not have a strong social network tend to be in this group.
  - b. These migrants have low propensity to extend support to the communities they left, and will instead require help through policy interventions and active community organizing. It cannot be emphasized enough that the types of programs and policies implemented should be context-sensitive, grassroots-led, and holistic. Otherwise, programs meant to assist them often fail because of the fragmented approach to addressing the needs of the distress and relocated migrants. Policies can be context-insensitive because they are written from a privileged perspective, with the prevailing mindset that these people are “mere beneficiaries” and need not be a part of the policy development process. On that note, this report highlights that those who have the highest vulnerabilities need to be engaged actively in an

effective consultative mechanism, lest policy interventions become unsustainable.

- c. There is also a perceived overlap between distress and relocated migrants because distress migrants sometimes relocate to new housing projects. In the best-case scenarios, relocated migrants can rebuild their lives with lower exposure and lower vulnerability to climate risk. But in the worst cases, relocated migrants are forced to reckon with perils and intangible costs.
- d. Note that each circle can potentially move across the planes, and special attention must be given to the mechanisms and dynamics underlying the situation of relocated migrants. Planned relocation, when undertaken well, can be a successful pathway for using migration as a positive adaptive strategy to the climate emergency.



**GAPS AND RECOMMENDATIONS:**

**REFLECTIONS ON WAYS FORWARD**

The discussion above surfaced preliminary frameworks that can guide the development of further policy research, and provide inputs on the way that the climate-migration nexus is framed. The key arguments of the frameworks are twofold: first, that it is important to recognize the variables that mediate the relationship between climate emergency and migration: quality of livelihood and quality of peace and stability. Migration often occurs as an adaptation strategy to manage vulnerabilities resulting from lessened quality of livelihood and decreasing quality of peace and stability as a result of the climate emergency.

The second main argument is that migration as an adaptive mechanism takes two forms: voluntary and involuntary. Permanent and circular migrants are categorized as people who undertake voluntary adaptive mechanisms, while distress and relocated migrants are categorized as people who undertake involuntary migration.

Given that the frameworks are preliminary and based largely on the collected evidence, this report is also not without limitations. Some of the pressing gaps are identified below:

1. **Limited data.** While migration studies in the context of the climate emergency is a rich field from a global perspective, there are limited studies in relation to the Philippine context. This may be due to the absence of data, the limitation of the search strategy employed in this report, or simply because the discourse on climate change in the Philippines mainstreams more engineering-centered solutions. It is important to address and indeed acknowledge that migration occurs in the broader context of the climate emergency. To effectively undertake this, data on human narratives of migration as a way of managing vulnerabilities in relation to climate risk should be included.
2. **Closer understanding of the profiles of migrants in the Philippines.** This report attempted to highlight various profiles of the migrants, primarily to dispel some misconceptions about their roles and backgrounds. Likewise, the report tried to surface these nuances to foreground the message that policy and program interventions must be contextualized to the profiles of migrants. However, the profiles are, at best, an approximation based on the evidence used in this report. They do not provide a complete picture and a closer look at the actual attributes or characteristics of the migrants. In the longer term, it will be important to have a closer understanding of the behaviors, tendencies, vulnerabilities, motivations, and adaptive strategies they employ. Understanding the nuances in the profiles of migrants will also dispel misconceptions about environmental migrants. This can be a basis to design adaptive policies leveraging on the strong points of each group, while also effectively addressing the weak points of each (Gemenne and Blocher, 2017).
3. **Underlying mechanisms.** Framework 1 (see Figure 6) surfaced the variables that mediate the relationship between climate change and migration. The hypothesized framework can benefit largely from testing, to either confirm or disprove the mechanisms identified. Moreover, it is not clear if quality of livelihood and level of security moderate one another, and as a result, provide a greater case for migration in the context of the climate emergency. These underlying mechanisms must be investigated further. Also, the level of security in relation to the climate emergency is worth investigating in the Philippine context. Global studies have looked at securitization of the environment to highlight the need for new policy interventions, and to mainstream the discussion of environmental challenges in security discourse. This might be a direction worth investigating. Meanwhile,

Framework 2 (see Figure 7) surfaced the profiles of migrants, but knowledge is limited regarding the mechanisms that allow certain profiles to develop higher adaptive capacities, as well as on their propensity to move horizontally and to provide support to their respective communities. It also remains to be investigated if relocated migrants can be disentangled from distress migrants, and move

independently to have increased adaptive capacities and higher propensity to support the communities they left.

Ultimately, this report provides the following recommendations pertaining to research, policy, and public knowledge:

## RESEARCH RECOMMENDATIONS

Research has to be undertaken across multiple disciplines regarding the climate-migration nexus in the Philippines. The frameworks surfaced above need to be confirmed or disproved, and empirical studies, both qualitative and quantitative, have to be undertaken to create a relevant repository of knowledge that can inform not just the scientific community, but also policy and public discourses. To this end, it is also important to build a data repository of human accounts of migration or human mobility against the backdrop of the climate emergency.

Some of the more critical themes that arose from this report, and which require further investigation include the following:

- How much impact does climate have on:

(a) quality of the livelihood of the people and (b) level of peace and stability in a certain area, and how do these factors drive migration? Do these two variables affect each other, in such a way that it drives migration?

- What are the roles of the following in empowering vulnerable sectors and incoming migrants, and increasing their capacities to cope with climate risks: (a) remittances from specific types of migrants? (b) community organizing?
- How do migrants feel the effects of compound risk, what are such risks, and how do they manage those in the face of the climate emergency?
- What are the behaviors, motivations, and



emergency, manifested by disasters from natural hazards at the same time when a pandemic is occurring, and people lack income security.

It is also important for policymakers to have sound data that can ground their decisions and policy interventions. This entails creating a robust database, and including certain human factors, such as migration, in the creation of solutions to the climate

emergency. At present, much of the policy discourse on climate specifically looks at technology, engineering, and infrastructure-oriented solutions. This is a good direction to go; however, it must not come at the cost of the human narrative, and consequently, human-centered solutions to the social impacts of climate risk.

## PUBLIC KNOWLEDGE RECOMMENDATIONS

At present, there is still insufficient understanding of the effects of the climate emergency on human lives. It is important to document and look closely at the effects of the climate emergency on humans, both as a way to proliferate knowledge about preventive actions, but also as a way to change behaviors that further exacerbate the vulnerabilities of climate-vulnerable sectors. Finally, it is important to also reframe the narrative that vulnerability implies the

inability to contribute to conversations on how to be climate-resilient. On the contrary, the more vulnerable a person is, the more platforms should be accorded to them, and the more that they have to be consulted as partners, rather than merely considered as “beneficiaries.” Their firsthand experiences of vulnerabilities can lead to better understanding and solutions-building on how to develop capabilities that can make them resilient.





# GLOSSARY

## **Circular migrants/migration**

People repeatedly moving back and forth between two or more countries. Note: Circular migration has been applied in many contexts. It has been used to describe migration that takes place spontaneously (for example in border regions, within regional integration processes such as the European Union, or between two or more countries in which a person has a legal right to reside in more than one country). It has also been promoted by States and development actors through specially designed programmes and schemes assisting migrants to migrate abroad, usually temporarily, with the purpose of taking up an employment and returning back to their country of origin. (Adapted from IOM Glossary on Migration)

## **Distress(ed) migrants**

People moving from the usual place of residence, undertaken when the individual and/or the family perceive that there are no options open to them to survive with dignity, except to migrate. 'Distress' migration is motivated by extreme economic deprivation, natural and environmental disasters, or forms of gender and social oppression perceived to be intolerable (Mander and Sahgal, 2012). (Adapted from the Food and Agriculture Organization of the United Nations (FAO) "Distress migration and youth in protracted crisis")

## **Environmental degradation**

"The reduction of the capacity of the environment to meet social and ecological objectives and needs. [...] Degradation of the environment can

alter the frequency and intensity of natural hazards and increase the vulnerability of communities. The types of human-induced degradation are varied and include land misuse, soil erosion and loss, desertification, wildland fires, loss of biodiversity, deforestation, mangrove destruction, land, water and air pollution, climate change, sea level rise and ozone depletion" (United Nations Office for Disaster Risk Reduction (UNISDR), 2009). (Migration, Environment and Climate Change: Evidence for Policy (MECLEP) Glossary)

## **Environmental migrants**

"Persons or groups of persons who, predominantly for reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad" (IOM Outlook on Migration, Environment and Climate Change)

## **Natural hazard**

"Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage" (UNISDR, 2009). (MECLEP Glossary)

## **Permanent migrants**

People who move to a country/region other than that of their usual residence for a long-term period (at least a year), so that the country/

region of destination effectively becomes their new country/residence of usual residence. Most of them are granted the right to live and work therein on a permanent (unlimited) basis by a host State. (Adapted from definitions on ‘long-term migrant’, ‘permanent residence’ and ‘permanent settlers’ on IOM Glossary on Migration)

### **Relocated migrants**

“There are several different sub-categories of people who may need to be relocated as a result of the effects of climate change, including: - people who need to be relocated from areas prone to sudden-onset natural disasters which are increasing in severity and intensity as a result of climate change (e.g. flood areas); - people who need to be relocated because their livelihoods are threatened by slow-onset effects of climate change (e.g. increasing drought frequency, salinization of water resulting from sea level rise); - people who need to be relocated because their lands are needed for mitigation measures (e.g. expansion of forests as carbon sinks) or adaptation projects (e.g. water reservoirs ); and - people who need to be relocated because their country or parts of their country could become unsuitable for habitation or supporting livelihoods related to the negative effects of climate change (e.g. small island states facing sea level rise)” (Ferris, 2013:32). (MECLEP Glossary)

### **Relocation**

Permanent voluntary migration, with an emphasis on re-building livelihoods in another place (own definition). The World Bank defines it as “a process whereby a community’s housing, assets, and public infrastructure are rebuilt in another location” (World Bank, 2010:77). Others have emphasized other dimensions in defining relocation as the “permanent (or long-term) movement of a community (or a significant part of it) from one location to another, in which important

characteristics of the original community, including its social structures, legal and political systems, cultural characteristics and worldviews are retained: the community stays together at the destination in a social form that is similar to the community of origin” (Campbell, 2010:58–59). (MECLEP Glossary)

### **Resilience**

“The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions” (IPCC, 2012a:5). (MECLEP Glossary)

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