

Migration, Environment and Climate Change: Policy Brief Series

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Abandoned house on the outskirts of Les Gonaïves, Haiti, which was affected by severe floods in 2004 and 2008.
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When do households benefit from migration?

Insights from vulnerable environments in Haiti

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Introduction

Haiti is the poorest country in the Western Hemisphere, and its steep topography and geographical location make it highly vulnerable to hydro-meteorological disasters. Environmental impacts are often exacerbated by poor management of natural resources and inadequate preventive and protective measures, which affect both livelihoods and economic development. Intensive coffee cultivation for export and exploitation of wood

contribute to soil acidification and erosion, and thus, general environmental degradation. The high degree of deforestation also contributes to Haiti's low resilience in the face of natural hazards (Oxfam, 2014).

Among possible responses to Haiti's precarious situation, this brief discusses new research findings with implications on the internal and international mobility of



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Haitians. In fact, migration is embedded in the history of Haiti and constitutes a major and growing determinant of its national economy, particularly through financial remittances. Between 1999 and 2013, the amount of remittances from the Haitian diasporas has quadrupled from USD 422 million to USD 1,781 million (World Bank, 2015a). Haiti's remittances equaled 21 per cent of GDP in 2013, which represented then the largest ratio in the Latin America and Caribbean region (World Bank, 2015b).

This brief builds upon the forthcoming Migration, Environment, and Climate Change: Evidence for Policy (MECLEP) Haiti Survey Report (Milan, Melde and Cascone, forthcoming) to explore how different forms of human mobility relate to household vulnerability in three Haitian municipalities, and how its results link to policies, including the draft national migration policy.

MECLEP survey in Haiti

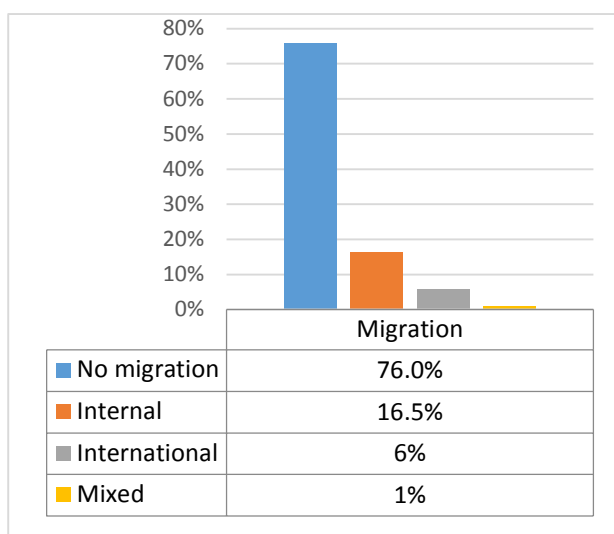
The MECLEP Haiti household survey was conducted in early 2015 in the capital of Port-au-Prince, in Les Gonaïves and La Marmelade. The three municipalities were selected because of their high vulnerability to environmental degradation and sudden-onset events, such as flooding (Les Gonaïves, 2004 and 2008), earthquake (Port-au-Prince, 2010) and deforestation (La Marmelade). The relationship between household

vulnerability and different forms of human mobility was then analysed by the United Nations University Institute for Environmental Human Security (UNU-EHS). To do this, the method of the Correlation Sensitive Poverty Index (Rippin, 2011), called Correlation Sensitive Vulnerability Index in this context, was used. This method allows combining the vulnerability index indicators without requiring arbitrary thresholds. In this research, the multidimensional vulnerability index used consists of six dimensions that are equally weighted and based on a set of 21 indicators (see table 1) (Milan, Gioli and Affi, 2015).

Decomposing the vulnerability index by dimensions reveals how some dimensions impact household vulnerability more than others. Respondents seem to be most severely vulnerable in the Housing and Environment, as well as Health and Nutrition dimensions, followed by Social Capital. Further down the line follow Social Inclusion and Economic, while the Education dimension seems to be the least problematic.

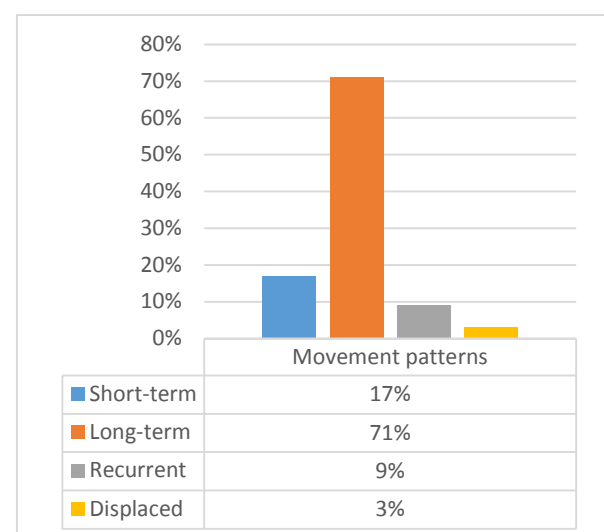
Within the Housing and Environment dimension, survey data show that being exposed to hazards alone hardly influences the migration decision. Households with at least one migrant in the family are more likely to have taken adaptive measures to environmental hazards with respect to non-migrant households, and live in houses built with more resistant materials.

Figure 1: Household-level migration prevalence



Source: MECLEP household survey.

Figure 2: Household-level prevailing type of migration (among migrant households)



Source: MECLEP household survey.

Table 1: Dimensions and indicators of the vulnerability index

Dimensions	Indicators
Economic	<ol style="list-style-type: none"> 1. Less than two sources of income 2. Dependency ratio is below the sample mean 3. Household head is unemployed or inactive 4. Household owns neither house nor land 5. Household owns less than two assets
Education	<ol style="list-style-type: none"> 1. Household head is illiterate 2. At least one child in school age is attending school
Health and Nutrition	<ol style="list-style-type: none"> 1. Household has no access to health care 2. Household has a permanently sick or injured member 3. Household has no access to drinking water at least once a week 4. Household does not have enough food for three meals a day
Housing and Environment	<ol style="list-style-type: none"> 1. Household has taken no measures against future hazards 2. Household has no access to electricity 3. Dwelling's walls and roof are not made from resilient materials 4. Household exposed to environmental hazards in past 10 years
Social Capital	<ol style="list-style-type: none"> 1. Household is not a member of an organization 2. Household has no access to a mobile phone 3. Household cannot count on somebody for help 4. Household has no access to formal credit
Social Inclusion	<ol style="list-style-type: none"> 1. Household has had security issues in the last year 2. Household has experienced discrimination 3. Household has no access to informal credit



A bird's eye view of Gonaïves, one of the heavily flooded areas in Haiti after a series of tropical storms battered the country in August 2008 which affected an estimated 800,000 people country-wide. © IOM, 2008

Migration and household vulnerability: MECLEP study results

Figures 3 to 6 show the vulnerability levels associated to the prevailing form of migration at the household level. In this section, a few interesting points from the interpretation of these figures and their relationship to the broader analysis conducted within the MECLEP Haiti case study are highlighted.

First, figure 3 shows that non-migrant households tend to belong to the most vulnerable households, while those who are relatively better off are more likely to migrate as part of their adaptive strategies. The most resilient households constitute an exception, as these are also less likely to migrate than households with closer-to-average vulnerability.

Second, a clear difference between people displaced internally and internationally is observed. In the case of internal movements, in line with recent studies on the internally displaced in Haiti (Courbage et al., 2013; Sherwood et al., 2014), households whose prevailing migratory form is internal displacement are associated with the highest vulnerability levels among households with internal migrants (figure 4). On the contrary, households whose prevailing migratory form is international displacement are the least vulnerable among households with international migrants (figure 5). The results may indicate that cross-border movement as a result of displacement is an effective response in the context of natural disasters. However, the possibility that only the most resilient households can move internationally in the context of disasters cannot be excluded.¹

Finally, when looking at the overall migration patterns (both internal and international), seasonal/recurrent migration seems to work better than any other form of migration, probably because social, financial and possibly in-kind remittances can be shared more regularly (figures 4, 5 and 6).

Further data analysis indicates that being part of a migrant household (household level), as well as being a migrant (individual level), are positively correlated with the likelihood of being employed and achieving higher levels of education. This further emphasizes the potential of a well-conceived migration policy, not only to minimize risks associated with different forms of mobility, but also to maximize the benefits associated with migration.

Figure 3: Vulnerability: Internal and international movement

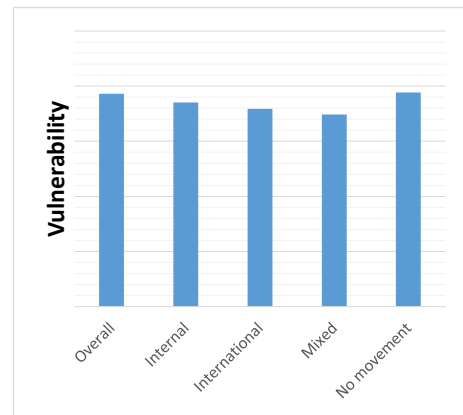


Figure 4: Vulnerability: Movement patterns

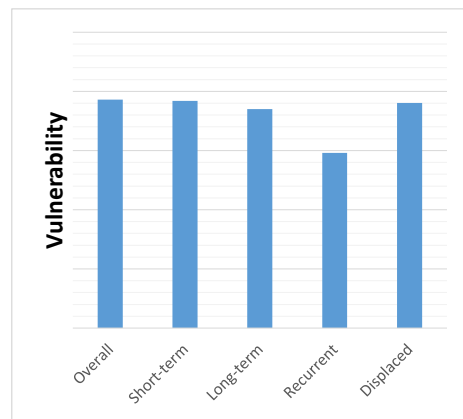


Figure 5: Vulnerability: Internal movement

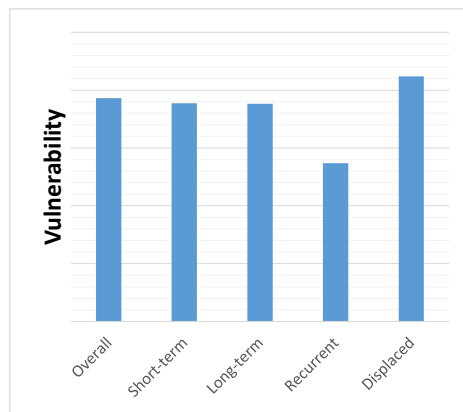
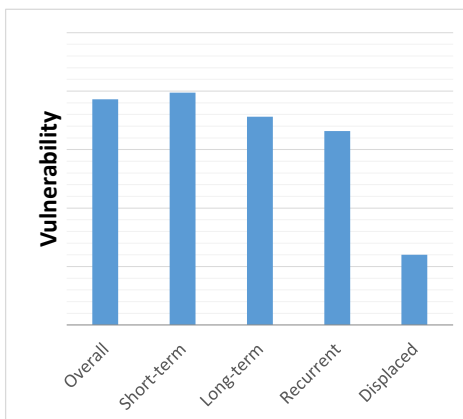


Figure 6: Vulnerability: International movement



¹ MECLEP data does not include information on the socioeconomic situation of the household at the time of migration.



Flooded customs office on the land border between Haiti and the Dominican Republic due to rising water levels of a nearby lake.
© IOM 2014 (Photo: Susanne Melde)

Policy implications

Mobility is an important feature of life in Haiti. In particular, rural–urban migration is the predominant internal movement. The urbanization rate increased by more than 20 percentage points in the past 15 years (from 35.6% in 2000, to 58.6% in 2015; UN DESA, 2014). Six months after the earthquake in 2010, studies estimated the urban population of the metropolitan area of Port-au-Prince to account for 52 per cent of the population and 71 per cent of heads of households (Klose, 2011; Haïti Data Service, 2010). Often, these movements are linked to land degradation, soil erosion, droughts, floods and other slow- and sudden-onset environmental events undermining or destroying livelihoods. In the cities, internal migrants are among the most vulnerable, as they often move to areas prone to further disasters, such as floods, mudslides and riverbank erosion.

Based on the findings from the recent survey on migration and displacement in Haiti, the following recommendations can be made:

1. Recognizing, in particular, internal migration as part of positive adaptation strategies and fostering its potential:

While seasonal and circular movements represent the most successful adaptation strategy through internal

movements, the majority of households moved permanently and internally, meaning for at least one year and inside their country. Through this mobility, they are more vulnerable than other migrants. Therefore, dealing with migration as a development issue would benefit the migrants, their households and communities of origin and destination. In particular, internal migration needs to be integrated in development and urban planning (cf. Sherwood et al., 2014), as international migrants tend to be less vulnerable.

2. Preventing and reducing displacement risks:

Those displaced internally by natural disasters are among the most vulnerable. Circular or seasonal labour migration schemes could help reduce displacement risks by diversifying income sources and increasing resilience, as could a planned relocation of the internally displaced from camps (Courbage et al., 2013).

3. A gendered approach:

Female-headed households were found to be considerably more at risk than those headed by men. Migration, development, climate change and disaster risk reduction policies should thus, in particular, aim to support women and their families.

Besides Haiti's migration policy, which is currently under discussion and might include a component on migration and the environment, migration and its relationship with household vulnerability is interconnected with several policy areas that would benefit from mainstreaming migration (Warner et al., 2013). For example, Haiti's 2015 Intended Nationally Determined Contribution to the United Nations Framework Convention on Climate Change (UNFCCC) mentions migration and the relocation of communities as possible adaptation strategies to climate change (especially in relation to the risk of floods in coastal areas) and commits to the production and knowledge dissemination of migration and climate change in schools and universities. The authors hope that this is only the first step towards further mainstreaming of migration in all other relevant policy processes.

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