Brief

Mauritius' Climate Change and Human Mobility Challenges

The Republic of Mauritius (ROM) is highly vulnerable to adverse impacts of climate change and climate variability. According to the World Risk Report 2016, Mauritius is ranked 13th among countries with highest disaster risk and ranked 7th as most exposed to natural hazards (UNU& EHS, 2016). Mauritius has developed a Climate Change Action Plan for addressing these threats. One important national consequence of exposure to disaster and environmental degradation is the impact on the migration of people.

In that respect, the Government of Mauritius submitted its Intended Nationally Determined Contribution (INDC) to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat in the lead up to adoption of the 2015 Paris Agreement. The INDC makes reference to migration questions in the context of adaptation to climate change, highlighting inter alia, the implementation of "plans to protect life and property and mitigate any propensity of migration of its population." This reference to migration in the national context mirrors interest at the global level.

While migration in the context of ROM is multifaceted, its relationship with climate change is of particular importance. Observed changes in climatological variables, such as rainfall, storm occurrences, humidity, temperature and sea-level rise, are already having an impact on people and communities in the islands of Mauritius and Rodrigues, as well as on the outer islands, such as Agalega and St Brandon. Several studies highlight that climate change and environmental degradation are expected to have increasingly severe impacts on migration in Mauritius.

The findings of the study "The Other Migrants: Environmental changes and migration in the Republic of Mauritius", carried out by the IOM in 2010, revealed that "at a local scale, people already suffer from environmental changes through the degradation of their means of livelihoods. Yet, many of those affected by environmental changes do not have the resources or land that would allow them to relocate their activity." IOM also identified several climate and environmental impacts linked to migration in ROM : water shortages, the spread of airborne and vector borne diseases as well as food insecurity in relation to climate change are specific threats to livelihoods whilst grave consequences such as loss of lives related to climate change and extreme weather events are also a concern.

Furthermore, the recently conducted national household survey entitled "Assessing the Climate Change- Migration nexus through the Lens of Migrants (2017)," commissioned by IOM under the Migration Environment and Climate Change: Evidence for Policy (MECLEP) project , has evidenced that people migrate to also reduce the vulnerabilities associated with climate change impacts. The study shows that there is a high mobility of people migrating internally within the island of Mauritius. In fact, during a period of five years i.e. from 2006 to 2010, 36,455 and 53,353 migrants have moved between districts and within districts, respectively and around

1,116 Rodriguans have migrated to Mauritius over the same period of five years. It is to be noted that most of the migrants from Rodrigues have a tendency to settle in vulnerable and economically disadvantaged areas, for instance in the outskirts of Port Louis. These migrants have settled in precarious conditions.

Main Findings and Results of the Migration, Environment and Climate Change: Evidence for Policy (MECLEP) Household Survey

The key findings of the study "Assessing the Climate Change- Migration Nexus Through the Lens of Migrants (2017)"are as follows:

1. There is evidence that migrant households experience improved environmental conditions after migration, as those who migrate to new destination may face less hazardous climatic and environmental events compared to their places of origin.
2. However, there are also cases observed where internal migrants are facing additional environmental risks at the place of destination, including those associated with landslides, droughts / water scarcity and a lack of secure infrastructure.
3. The four main environmental and climatic events that migrant and non-migrant households face are: torrential rain, floods, droughts/ water scarcity and cyclones.
4. The occurrence and frequency of the above-mentioned four events vary at the regional level. Floods and torrential rain are the two major events identified by households in Port Louis and Bambous/Flic-en-Flac/Tamarin. Droughts/ water scarcity, cyclones and torrential rain were identified as having the worst effects on livelihoods in Rodrigues.
5. Low-income migrant households are more vulnerable in the sense that, on average, they have relatively lower incomes than non-migrant households.
6. A high percentage of migrants pointed out that migration was important to increase income and employment opportunities and to a lesser extent trade and investments. Their mobility was also important to improve credit availability, family relationships, health conditions and education, and therefore had a positive impact on well-being.
7. Some internal migrants in Rodrigues settling in new areas are facing lower access to water and electricity. The latter may be due installation to new residential areas where such infrastructures are yet to be developed, and the former is mostly due to issues related to drought/ water scarcity;
8. It has been observed that migration leads to a change in the support network: from a familial support network, to one including friends, neighbours and religious networks. At the same time, a high percentage of migrant households also feel that they have nobody to revert to for support.
9. Migrants find themselves unlikely to be members of organizations such as traders associations, sports groups, or women's or youth groups in places of destination. There is also a general observation that many migrants do not have a sense of belonging to the place of destination.

10. Migrant households eventually face challenges related to, among other things, security, discrimination and housing, which are strongly linked to general socioeconomic development and urban planning.

Climate Change and Human Mobility Challenges in Mauritius

1. The study "The Other Migrants: Environmental changes and migration in the Republic of Mauritius", carried out by the IOM in 2010, mentions that
    - no exhaustive study of vulnerability (mapping and scenarios) in the Republic of Mauritius has yet been completed.
    - a key challenge of adaptation to climate change is its actual translation into concrete projects – as at date, only a few examples of adaptation exist on a local scale to support vulnerable local communities to cope with current and future environmental degradation and/or to limit potential forced migration movements that could be induced by these changes.
2. The report "Assessing the Evidence: Opportunities and challenges of Migration in Building Resilience against Climate Change in the Republic of Mauritius" (2016) prepared by IOM mentions that:
    - one of the key challenges of the Government is how to integrate migration within the development strategies of the Republic of Mauritius in a holistic manner, particularly in the context of environmental and climate change.
    - There is substantial evidence that Rodriguans are settling in the main island Mauritius for several reasons, one of which is degradation of the fisheries resources. The unfavourable economic conditions in Rodrigues, as opposed to the better job opportunities in Mauritius have motivated the Rodriguans to come and settle in the main land.

      Some of the major difficulties highlighted in this study regarding the migration of Rodriguans to Mauritius are as follows:

        - Lack of information and support for resettlement in Mauritius;
        - Absence of land use monitoring policy in favour of Rodriguans in Mauritius;
        - Limited information regarding the possibility for Rodriguans to serve as migrant workers in countries within the region, namely Southern African Development Community (SADC);
        - No clear policy and guidance with respect to international migration in general and Rodriguans' in particular; and
        - So far, the study notes that there has not been any forced migration.
3. The study "Assessing the Climate Change - Migration Nexus Through the Lens of Migrants: The Case of the Republic of Mauritius" (2017) carried out by IOM reveals that migration can be an adaptation strategy with many benefits, but at the same time it also involves risks. While people may use migration to better adapt to changes in environmental and climatic conditions, there is a need to minimize the challenges that they may face in terms of an increase in vulnerabilities in other dimensions such as

discrimination, security and debt. The authorities, relevant stakeholders, media and civil society at large play a key role in making migration a successful adaptation strategy. The main challenges identified in this study are as follows:

- There is a need to mainstream migration as an adaptation option in the main policy framework, for example in climate adaptation plans, the land and housing planning system, disaster risk management and the building of new cities.
- The Government may enhance the effectiveness of migration as one (among many other) climate adaptation strategy by reducing the environmental risks that migrants face in the area of destination.
- To use migration as an adaptation strategy to climate change, it is necessary to (a) develop an integration strategy, whereby the well-being of migrants is not affected and (b) use a participatory approach involving civil society, NGOs and community-based associations. The integration strategy would enhance economic integration and social cohesion of migrants, and reduce conflicts between migrants and non-migrants.
  Capacity-building (in terms of, for example, training and sensitization) of the relevant stakeholders at different levels (decision-making level, implementation, monitoring) is a precondition to make migration an effective adaptation strategy to climate change.
- There is a need for the relevant authorities to (a) design frameworks that address the probable outcomes of migration, and population growth more generally, at the very outset, and (b) take a proactive role rather than reacting after the migration outcomes occur. Given that migration is likely to play a vital role in increasing settlements, there is a need to design a land-use planning system that is tailor-made to the specific regions. One-size-fits-all planning can no longer be a development strategy given the different environmental and climatic conditions, as well as the social and economic characteristics of the populations and varied vulnerabilities, found in the different regions.
- It is recommended that the Government design a framework to assist trapped populations in general, as well as specific (that is, extreme) cases to mitigate the environmental hazards they are facing. The Government could provide trapped populations with assistance in terms of in situ adaptation options to prevent excessive internal migration flows, which could be detrimental to the livelihoods of the population (existent and migrants). For example, the outcome of torrential rain and floods (the two main climatic events identified in the survey and supported by reports on the island of Mauritius) can be mitigated through a well-defined and integrated drainage system. Problems related to droughts (as identified in Rodrigues) can be remedied through the use of a well-designed water system at the household or national level so that droughts do not lead to increased internal migration.

- The population (especially women and the elderly) who decide to stay at the place of origin require support if the young members have migrated. The Government, in collaboration with community-based associations, could have a greater role to play to ensure the security, health and other aspects affecting the livelihoods of the population. This policy implication is particularly relevant in Rodrigues.
- The Government could initiate a migration data and monitoring system to collect and disseminate information on migration flows on a regular and systematic basis to inform policy, especially on land planning, infrastructure development and resource (water, energy and so forth) management. Such a data management system could be easily conceptualized with the collaboration of Statistics Mauritius, which is involved in almost all data collection and statistics for the Republic of Mauritius. Such data could also be used by researchers employing advanced modelling techniques and by policymakers for development plans.
- Research institutions and universities in the Republic of Mauritius should also encourage research on the different aspects of migration, including on the climate change–migration nexus. Migration studies would be relevant for policymakers, local authorities and land planners in designing development plans, as well as for NGOs and community-based institutions.

4. Based on the above-mentioned findings a policy recommendations and action plan on Migration, Environment and Climate Change, have been formulated.

Climate Change Division
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