MIGRATION, ENVIRONMENT AND CLIMATE CHANGE IN THE LITORAL OF ECUADOR.

The increasing human mobility related to climate change is a global concern. However, the effectiveness of actions is limited by the lack of up-to-date and accurate data, affecting response capacity. In this context, the International Organization for Migration (IOM) in Ecuador proposed to develop a study on the country's coast with the aim of generating information to guide the design of policies aimed at improving the living conditions of affected communities.

A panel of informants was established, and two rounds of data collection were carried out in four cantons: Chone, Vinces, Ventanas, and Daule, belonging to 3 provinces of the Ecuadorian coast (Manabí, Los Ríos, and Guayas). These cantons were identified in Ecuador's National Plan for Adaptation to Climate Change as areas of high climate and environmental vulnerability.

As part of the methodological design of the study, a Geographic Information System (GIS) was designed to facilitate the location of hot-spots or critical migration areas within the preselected cantons. This system was based on climate information such as exposure to floods, droughts, and heatwaves, as well as data on the socioeconomic vulnerability of the inhabitants.

A questionnaire was applied to 1,045 households in round 0. Of these households, 953 responded to the same questionnaire again in round 1, which implies a panel effectiveness of 91.2%.

The results of the study reveal very limited socioeconomic conditions in the surveyed households. There is a high dependence of households (45.3%) on the sale of labor as day laborers or peons, most of them in the agricultural or agro-export sector. Approximately half of the households have monthly incomes below USD 150, placing them close to the thresholds of poverty and extreme poverty.

Regarding mobility due to environmental causes, the survey reveals that in the last 10 years, 66 of the 1,029 surveyed households have experienced migrations or displacements of more than 3 months of one or more members, affecting a total of 175 people (4.04% of a population of 4,339 people). This implies an average of 2.65 household members. In turn, 37 households reported having one or more household members who were displaced or migrated for less than 3 months, affecting 129 people (2.97%). Of the total of 103 households with migrants or displaced persons, 55 indicated that they were forcibly displaced at least twice, while 13 did so under planning.

One of the innovative aspects of this study is that, from the GIS that allowed locating the migration hot-spots in the study area, it was possible to assign to each surveyed household

a climate vulnerability index based on exposure to risks such as floods, droughts, and heatwaves, finding that precisely the households with the highest number of migrants and displaced persons had higher climate vulnerability indices. This confirms that climate aspects do push households to displace or migrate.

REFERENCES

Alcalde-Campos, R. & Pávez, I. (2013). Infancia, familias monoparentales e inmigración latinoamericana en Barcelona, España. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 11 (1), pp. 229-243.

IPCC. (2012). Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. In *2012*. https://www.ipcc.ch/report/managing-the-risks-of-extreme-events-and-disasters-to-advance-climate-change-adaptation/

IPCCGT2. (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability. https://www.ipcc.ch/report/ar6/wg2/

MAATE, & OIM. (2022). Movilidad Humana y Cambio Climático en el Ecuador.

McLeman, Wrathall, D., Gilmore, E., Thornton, P., Adams, H., & Gemenne, F. (2021). Conceptual framing to link climate risk assessments and climate-migration scholarship. *Climatic Change*, 165.

Moreno. (2020). La migración ambiental, un hecho de injusticia climática en Ecuador. Migraciones Climáticas. https://migracionesclimaticas.org/la-migracion-ambiental-un-hecho-de-injusticia-climatica-en-ecuador/

Naciones Unidas, C. (2023). *Panorama Social de América Latina y el Caribe 2023*. www.issuu.com/publicacionescepal/stacks

Organización Internacional para las Migraciones (OIM). (2021). Estrategia Institucional sobre Migración, Medio Ambiente y Cambio Climático 2021-2030. www.iom.int

Otto, I. M., Reckien, D., Reyer, C. P. O., Marcus, R., Le Masson, V., Jones, L., Norton, A., & Serdeczny, O. (2017). Social vulnerability to climate change: a review of concepts and evidence. *Regional Environmental Change*, *17*(6), 1651–1662. https://doi.org/10.1007/S10113-017-1105-9

Piguet, E. (2022). Linking climate change, environmental degradation, and migration: An update after 10 years. *Wiley Interdisciplinary Reviews: Climate Change*, *13*(1), 1–16. https://doi.org/10.1002/wcc.746

Puyana Y. (2004). La familia extensa: una estrategia local ante crisis sociales y económicas. Trabajo Social No. 6, páginas 77-86. Revista del Departamento de Trabajo Social, Facultad de Ciencias Humanas, Universidad Nacional de Colombia

Satterthwaite, D., Archer, D., Colenbrander, S., Dodman, D., Hardoy, J., Mitlin, D., & Patel, S. (2020). Building Resilience to Climate Change in Informal Settlements. *One Earth*, *2*(2), 143–156. https://doi.org/10.1016/J.ONEEAR.2020.02.002

Weerasinghe, S. (2021). What We Know About Climate Change and Migration.