

Assess pressures on populations and migration

Applications

Applications

Climate change has a big impact on populations' displacement and it is likely to have a bigger impact through gradual environmental changes, which are less palatable to newspapers but leave stronger traces in the long run. Migration should not be taken as a failure to adapt to climate change but rather as one of the usual ways humanity adapts. (1)

It is nonetheless important for the international community to have a clear understandings of migration's drivers and on the mechanisms which guide population displacement to develop political strategies and respond to environmentally induced migration. On the other hand migration as well has been showed to affect environment, for example through pressure on forest and de-forestation and new urbanisation.

There is a call for better data to answer questions relating to the likely scale and pattern of movement and a concern to understand better the here and now – how is environmental change affecting migration today and the most vulnerable populations or regions.

The recently released report of the International Panel for Climate Change (2) mentions that uncertainties about future vulnerability, exposure, and responses of interlinked human and natural systems are large It calls for the exploration of a wide range of socioeconomic futures in assessments of risks. Understanding future vulnerability, exposure, and response capacity is recognised to be challenging due to the number of interacting social, economic, and cultural factors, which have been incompletely considered to date. Among these factors demographics and migration play an important role, together with access to technology and information.

In the same context the experts report medium evidence that climate change over the 21st century is projected to increase displacement of people (high agreement). The risk is projected to be higher in case of populations that lack the resources for planned migration: developing countries are both highly exposed to extreme weather events and poorly prepared, due to both low income and low technological means and access to information. Expanding opportunities for mobility can reduce vulnerability for such populations. Changes in migration patterns can be responses to both extreme weather events and longer-term climate variability and change, and migration can also be an effective adaptation strategy.

Environmental and climate variables can be monitored through Earth observation and serve as inputs for adaptation strategies. Satellite imagery can also be used to remotely estimate forcibly displaced population. This can be done by counting residential structures detected by radar satellite, and estimating the number of people per structure and in total. This is a reasonably precise method, quick and cheap with respect to other applications. (3) Moreover the impact of migration on the environment is also a subject which can be addressed with the help of remote sensing. (4)

References

- (1) Migration, environment and climate change, International Organisation for Migration (IOM), 2009.
- (2) Report of the IPCC 2014
- (3) Checchi F., Stewart. B. T., Palmer J. J. and Grundy C., Validity and feasibility of a satellite imagery-based method for rapid estimation of displaced populations
- (4) UNEP, Population displacement and the environment.

Products

Products	Ext. Source	Descriptions	Product Standards	Ref. Project

Success Stories

References

Topic	Description	Keywords	Reference