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Development and displacement risks

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Climate change has such significant implications for emergencies that sometimes the development facet of the challenge can be overlooked. Yet the impact of climate change induces systemic patterns of socio-economic erosion that also affect the dynamics of disaster displacement and that require parallel responses.

It is widely recognised that most displaced persons live on or below the poverty line, and that lower-income groups are disproportionately affected by weather-related disasters. Furthermore, disasters aside, a host of different consequences also associated with a changing climate weaken resilience, especially of subsistence farming groups, and thereby breed further vulnerability. These are then an amplifying factor for rural to urban migration, even if climate issues are largely concealed by 'economic' explanations for migrant flows and both groups of migrants often end up in the same slums.¹

Hotter days, longer and more intense dry seasons and less overall rain but heavier downpours place significant pressures on low-income rural communities. Health, for instance, suffers due to more favourable conditions for food-, water- and vector-borne diseases. Shorter, less predictable growing seasons, less rain and more flooding all cut farm outputs, while the increase in the number of extremely hot days makes outdoor work (the great majority of all work in subsistence farming communities) less productive and more dangerous because of exhaustion and dehydration. As it becomes harder for farmers to grow produce and to work, food insecurity climbs, with child malnutrition rates typically increasing in tandem.

Governance capacity defines resilience

Challenging conditions like these are common to rural communities across tropical developing regions. Particularly vulnerable are countries and communities with very high agricultural sector contributions to economic output or to the workforce, and large numbers of subsistence-level households.

Although the specifics vary, the outcome is frequently the same: people, especially youths, hasten decline by leaving in growing numbers for cities and their slums. Problems are not only transposed to the urban realm; the process also compounds risks for communities of both origin and destination.

While climate-stressed rural communities of sub-Saharan Africa, South America, Asia and even the Middle East furnish a ready supply of new inhabitants to urban slums, geographically similar areas of the south-western US or of Australia, for instance, are not affected in the same way despite analogous climate pressures. This fact underscores the significance of community capacity and governance systems to deal with such change.

Rural renewal

A wide variety of measures and approaches to adapt to climate change have been developed, as highlighted for instance by the breadth of activities foreseen by National Adaptation Programmes for Action.² Among predominantly subsistence communities, however, the key factor restricting responses is a lack of reliable means to initiate and sustain such measures. Higher quality, more drought-resistant seeds, improved water installations or meteorological micro-insurance schemes, among other initiatives, all typically require effectively unachievable outlays, circumscribing access for those most in a position to benefit.

Not all initiatives to adapt to climate change require resources but increased capacity and resilience-based approaches greatly expand the feasible range of responses. In the specific case of northern Ghana [see box overleaf],

Rural erosion in Ghana's Upper East Region

The effects of increases in heat on subsistence communities have been most pronounced in this region of Ghana, once the breadbasket of the country. One way to compensate for diminished growing seasons or productive capacity is to extend the amount of land under cultivation; however, this is very often at the expense of trees and therefore at the expense of biodiversity, land integrity and shade for farmers and crops. Deforestation and the degradation of trees and forests not only contribute to more climate change through the loss of carbon sinks but can also intensify local heat, drought and flood vulnerabilities. Moreover, only the least productive lands remain to be brought under cultivation, so these diminishing yields come at great expense.

Private revenue losses likewise affect public services. Declining investment in local water infrastructure is particularly problematic because it shrinks the area of arable land available during the dry season, leading more people to migrate seasonally. Indications of societal strains are evident too. As smallholder farmers keep fewer livestock, for example, they also entrust fewer to the care of nomadic Fulani herdsman who frequent marginal lands in the region. Previously reliant on the mutually beneficial interchange of herding services for food or income, the erosion of this exchange demonstrates how livelihood shocks for settled communities can be transmitted through economic chains, harming traditional social ties.

reversing the trend of livelihood erosion is a critical step for securing investment in water and irrigation infrastructure, for maintaining conservation zones, for accessing insurance and the countless other measures that could increasingly fall within reach as capacity expands.

While governments can stimulate change through fiscal incentives or education campaigns, many stakeholders, such as community interest groups or religious organisations, also have opportunities to foster resilience and rural renewal in the face of climate change. A more vibrant rural economy would additionally enable greater dividends to be reaped from seasonal and permanent migration by increasing the probability that exchanges of skills, business links and remittances are of real local benefit. In these ways, migration can form part of an adaptation strategy rather than simply be a last resort.

Conclusion

The United Nations Development Programme (UNDP) has made resilience to climate change and natural disasters central to its 2014-17 Strategic Plan and the World Bank is placing growing emphasis on climate change adaptation and mitigation. UNDP has also been centrally involved in efforts

to provide development solutions to today's increasingly protracted displacement challenges through initiatives such as the Solutions Alliance and Syria's Regional Refugee and Resilience Plan (3RP).³

The countries and communities most vulnerable to climate change do however face a major challenge in overcoming the propensity to rural decline and migratory pressure as climate and environmental change continues apace. Understanding the evolving nature of climate-related displacement will require thinking in terms of development, with the effectiveness of development responses central to reaching durable solutions for these challenges.

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1. See FMR 34 'Adapting to urban displacement' www.fmreview.org/urban-displacement

2. See Warner *et al* article pp8-9.

3. www.3rpsyriacrisis.org and www.solutionsalliance.org
Note that FMR issue 51 will cover this subject: see www.fmreview.org/solutions