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Autonomous responses to non-economic losses in northcentral Bangladesh

Case study

Durgapur Upazila is located in north-central Bangladesh. In June 2022, people living in the region experienced severe flash floods. They also face increasing impacts from slow-onset hazards such as drought, rising temperatures, changing rainfall patterns and riverbank erosion (van Schie et al., 2023). In Durgapur Upazila, we assessed losses and damages using locally-identified values rather than using predetermined types of non-economic losses, as conceptualised by the UNFCCC (2013). These are often used to assess non-economic losses (e.g. Andrei et al., 2014; Hirsch et al., 2017; McNamara et al., 2021). This process empowered the people most affected by climate change to report on what they considered important, rather than using a top-down approach (Van Schie et al., 2023). After a participatory process that included interviews and focus group discussions, we agreed on ten 'local values'. These values mainly reflected 'non-economic' aspects of life, such as nature and family, but also some aspects of life related to people's economic livelihoods. Using the locally-identified values as an assessment framework, we found that in Durgapur Upazila climate change affects virtually everything that people value. For example, various health problems are worsening due to various hazards, nature is diminishing as young trees struggle to grow, and people are unable to perform religious rituals due to the loss of needed natural products. As other research shows (Pill, 2022), we also recorded how economic losses cascade into non-economic losses. For example, a loss of financial security due to crop loss led to a loss of mental health and prevented people from being able to afford education or health care.

Not everyone in Durgapur Upazila is equally affected by climate change. Especially lower-income households, such as socially marginalised *Dalit* (low caste Hindu) households, suffer disproportionately from non-economic losses. *Dalit* households live in areas that are highly exposed to riverbank erosion and flooding, and they do not have sufficient financial resources to move to safer areas. They also have less capacity to respond to and recover from non-economic losses. As a result, they face greater losses. Furthermore, women in the area perceived the values of 'mental health', 'serenity' and 'nature' to be significantly more affected than men.

Beyond the construction of embankments and scattered post-flood relief efforts, people in Durgapur Upazila are not receiving any assistance to address non-economic losses. We did, however, record a number of self-initiated responses. People tried to repair the embankments and roads needed to reach important places such as schools, religious buildings and hospitals. They shared houses, meals and latrines to ease the burden on family or community members. They buy medicines and seek medical care to address health problems. They migrate to urban areas to maintain financial security and reduce mental stress within the household. And they buy lost natural products needed for cultural and religious rituals. We found similar autonomous responses to non-economic losses in southwest Bangladesh, where people also planted salt-resistant rice varieties and replanted mangrove forests (Van Schie et al., 2022).

Arrangements

People carried out these autonomous responses without the help of government or non-government organisations. Instead, people mostly relied on their own capacities and immediate environment. For instance, *public services* such as hospitals and local clinics were essential to ensure that people could seek support for health issues during heat waves or after floods; *religion* proved to be important for people to maintain their psychological health in times of great stress; and *social relationships* with family and community members were important for obtaining food, access to sanitation or shelter. People also relied heavily on personal *financial assets* in responding to non-economic losses, as the traditional and modern medicines they use to address health problems, seedlings and fertiliser to regrow trees and plants, and materials to repair roads all require substantial financial responses.

While these responses alleviated non-economic losses to some extent, they were often formulated in the face of immediate stress to protect basic well-being. Indeed, people lacked the capacity to respond fully to non-economic losses. Several people said that they accepted some non-economic losses because they had to prioritise certain aspects of their lives over others, often because they were already living in poverty. In addition, autonomous responses often undermined other aspects of people's livelihoods. Buying medicines or seeking medical care may mitigate the loss of health, but may create further financial insecurity. Migration also reduced the size of already marginalised populations, leading to further marginalisation.

People identified a wide range of interventions and strategies when asked what assistance could be provided in response to the identified losses and damages. It was clear from their responses that rather than direct compensation - such as rebuilding latrines and religious buildings, or providing livestock and cash - people preferred structural social improvements that would make them more financially resilient, as this would enable them to better respond to non-economic losses in the long term. Long-term financial resilience was linked to non-economic losses because it alleviates psychological stress

and gives people access to services and products such as health care, education and products relevant to religious rituals.

Lessons learned

Our research shows that responding to non-economic losses is not something new. In Durgapur Upazila - but also in southwest Bangladesh (Van Schie et al., 2022) - we have documented dozens of autonomous ways in which people are currently responding to non-economic losses. We can learn from these existing responses as we seek to address non-economic losses. In addition, organisations can work with affected societies to strengthen existing autonomous responses. This case study shows that, because of the interlinkages between economic and non-economic losses, this can be done by improving people's long-term financial livelihoods, for example by securing employment that can provide stable incomes and keep households together. In addition, the public services and goods on which people depend, such as infrastructure and health facilities, can also be repaired and improved so that people have access to places relevant to their 'non-economic' livelihoods.

It is important that all these interventions are designed and implemented with differentiated vulnerability and marginalisation in mind. In Durgapur Upazila, *Dalit* households are already marginalised. If interventions designed to address non-economic losses ignore these processes, there is a risk that aid will not reach them. This would exacerbate existing social inequalities.

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