Panel: Climate Change Adaptation and Migration in Semi-Arid and Mountainous Regions

The nexus between migration (both internal and international) and environmental and climatic changes is an important factor influencing livelihoods in semi-arid and mountainous regions of the global South (Milan et al. 2014). ‘These livelihoods are often characterised by’ high dependence on subsistence farming and other national resources that are highly sensitive to climate change (Ibid.). However, there is lack of empirical studies and theoretical frameworks for understanding the role of migration in the context of adaptation to environmental variability and change, especially in mountain areas (Ibid.) and semi-arid lands (Banerjee et al. 2013). The objective of the proposed panel is to contribute towards better understanding of this inter-relationship in the Hindu Kush Himalaya (HKH) region and in Semi-Arid Lands (SALs) of Asia and Africa.

‘Referred to as “the water towers of Asia, the HKH glaciers feeds into 10 major Asian river basins’ (Tarim, Amu Darya, Indus, Ganges, Brahmaputra, Irrawaddy, Salween, Mekong, Yellow river and Yangtze). Together, these rivers contribute to the fresh water supply of an estimated 1.4 billion people, out of whom 20% live below the poverty line (Hunzai et al. 2010 as cited by Gioli and Scheffran 2013). All the countries of the HKH region (Afghanistan, Bangladesh, Bhutan, Pakistan, India, Myanmar, Nepal, and China) ‘are experiencing fast-paced transformation at several levels and scales’ (Gioli and Scheffran 2013).

Similarly, SALs which cover about 16% of land in Asia and about 17% area in Africa are increasingly facing the brunt of climate change (FAO 2008). Most of the population in SALs of Asia and Africa are engaged in the natural resources sector (agriculture and pastoral activities) and are, thus, highly sensitive to climate change impacts (IPCC 2014). ‘Together with the changing nature of climate, poverty and development challenges, ill management of land and water in most SALs is causing degradation of the environment and affecting day-to-day human life through direct and indirect pathways’ (Qaisrani 2015, p. 32).

‘Understanding the interaction between climatic and environmental change (changing temperature and precipitation patterns, changes in the hydrological regimes of water basins, and in the snow-cover dynamics, variation in the extent of glaciers, pollution), and other drivers of change such as globalisation, economic integration and population dynamics (out-migration, rural-urban migration, and population growth)’ is paramount for the sustainable future of these regions (Gioli and Scheffran 2013).

Given heterogeneity in individual and collective responses, it is difficult to attribute migration to climate change and difficult to predict the scale at which climate change might likely impact migration (ADB 2012). This is particularly so when the relation between climate change and migration is not linear (Mueller et al. 2014; McLeman and Smit 2006), and dependent on complex socio-economic and politico-ecological factors (Black et al. 2011; Barnett and Adger 2007), where human choices may be shaped by access to resources, opportunities, information, reliable institutions, social networks, household characteristics, human capital, better incomes and livelihoods (ADB 2012; Black et al. 2011).

‘Labour migration in the context of climate change... benefits’ the households ‘via the social and financial remittances’ (Gioli et al 2014, p. 255). Remittances can reduce the vulnerabilities of the
households by diversifying household incomes (Banerjee et al. 2011; Gioli et al. 2014) and by acting as household insurance (Yang and Choi 2007). Remittances tend to be counter-cyclical and increase in the times of crisis, e.g. during environmental disaster (Le De et al. 2013), with positive impacts on the ability of households to cope with and recover from the adverse impacts of environmental and climate change.

With rising temperatures, erratic rainfall patterns, issues of water scarcity, food insecurity and increased frequency and intensity of natural disasters, it is paramount to devise strategies and harness the potential of migration for increasing the resilience of the most vulnerable. Under these premises, the panel discussion will revolve around the following key questions:

- To what extent climatic extremes will increase livelihood vulnerabilities of the people of the mountain and SAL region over time?
- Is migration a coping or adaptive strategy of households in the context of climate change?
- What role can migration and remittances play in enhancing new economic opportunities for improving adaptive capacities of the households in the HKH and SAL regions?
- What policy shifts/changes and institutional capacities are needed to support migration as an adaptive strategy?

**References**


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