

CLIMATE-INDUCED HUMAN MOBILITY: A CASE IN A CASCADED TANK VILLAGE SYSTEM WITHIN A SRI LANKAN CLIMATE CHANGE HOTSPOT

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Climate change significantly impacts agriculture in the dry zone of Sri Lanka, mainly affecting agrarian communities, particularly in climate change hotspots. These communities are increasingly vulnerable, adopting various strategies in response, with human mobility, both individual and familial, being a prominent adaptation to climate change and related environmental challenges. Understanding these responses in depth is crucial for designing effective development interventions. This study explicitly explores climate-induced human mobility in the *Bandarakumbukwewa* cascaded tank village system in the *Horowpothana* climatic hotspot. Proportionate random sampling was utilized to acquire primary data from 139 farming households. Descriptive statistics and inferential statistics were used to analyse data. The results revealed that respondents in the *Bandarakumbukwewa* cascaded tank village system perceive a marked increase in climate-related challenges, primarily associated with rainfall and temperature variations. These changes have led to significant agricultural issues, including crop damage from pests and diseases, lower productivity, and reduced income. Human mobility, a critical response to these challenges, encompasses climate-related and unrelated aspects, with the former being more pronounced. A prominent trend in climate-induced mobility is individuals' temporary or seasonal movement to internal urban centres, seeking non-agricultural employment. The impact of this mobility varies among family members, with elders particularly experiencing adverse effects, primarily emotional isolation, due to these migrations. Additionally, there is a moderate inclination towards future migration, suggesting an ongoing concern about the impacts of climate change and environmental degradation on livelihoods and living conditions. Therefore, the study recommends targeted development initiatives focusing on sustainable agriculture and alternative income generation to mitigate climate-induced migration and enhance resilience among vulnerable communities in the dry zone of Sri Lanka.

Keywords: Community resilience, Environmental degradation, Human mobility patterns, Sustainable agriculture