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## Sustainable floods: Exploring stakeholder perceptions of sedimentation strategies for the sinking Mekong delta

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The Mekong delta in Vietnam, home to over 17 million people, is rapidly losing elevation due to groundwater-extraction-induced subsidence, natural compaction and global sea-level rise. These combined processes result in salinity intrusion, erosion and land loss. The delta has been extensively poldered for agri- and aquaculture, largely cutting off the land from the dwindling supplies of fluvial sediment which would otherwise accumulate on the delta during seasonal floods and increase land elevation. Considering the current state of the Mekong delta and sediment delivery from upstream, the future sustainability of the delta cannot rely on natural delta-building processes and instead must be planned and managed to prevent major degradation of the system.

Sedimentation strategies are methods of ensuring that the limited sediment available is retained to increase elevation where it is desirable for the population and sustainability of the delta. Considering the potential disruption to land uses and livelihoods caused by sedimentation strategies, it is vital to discuss the possibilities for sedimentation strategies with stakeholders to ensure that people, particularly vulnerable groups, are not disadvantaged, and ensure that delta management is sustainable from all perspectives. In this research we engage with stakeholders to start an explorative dialogue on the potential of sedimentation strategies in the Mekong delta considering physical, socio-institutional, governance and legal aspects. We present an analysis of interviews and workshop discussions with farmers, officials, and regional experts in the provinces of Soc Trang (coastal, the most downstream part of the delta) and An Giang (inland, the most upstream part of the delta) to gain insights into local perspectives in different areas of the delta, with different physical environments, land use histories and constraints.

Preliminary findings suggest that the perceived role of sediment varies across different stakeholders e.g. farmers focus more on the role of sediment for their agricultural activities while experts also express their concerns on the elevation of the delta. Interestingly, while sediment is perceived to be important in the upstream area, it is considered an inconvenience in the downstream part of the delta due to, among other factors, different types of livelihoods. It is

therefore recommended that the sedimentation strategies need to be designed based on the typical livelihoods of locals and communication strategies need to be enhanced to raise the awareness of local actors on the role of sediment.