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Assessing vulnerability and risk to livelihoods in river deltas socio-ecological systems: alignment of the GDRI with global frameworks' indicators

Emilie Cremin¹, Sumana Banerjee³, Sonia Murshed⁶, Jack O'Connor², Hieu Hong Hua⁵, Da Van Huynh⁵, Thanh Son Vo⁴, Hue Thi Van Le⁴, Salehin Mashfiquis⁶, Zita Sebesvari², Andy Large⁷, and Fabrice Renaud¹

¹University of Glasgow, Social Sciences, School of Interdisciplinary studies, Scotland, UK

²United Nations University, Institute for Environment and Human Security, Bonn

³Jadavpur University, India

⁴Central Institute of Natural Resources and Environmental Studies, Vietnam National University, Vietnam

⁵Can Tho University, Vietnam

⁶Institute of Water and Flood Management, Bangladesh University of Engineering and Technology, Bangladesh

⁷University of Newcastle, UK

Disasters have significant impacts on the progress towards achieving the Sustainable Development Goals (SDGs). However, the interlinkage between sustainable development and disaster risk reduction is not considered enough in risk assessment tools. A greater alignment with global frameworks would ease the monitoring while increasing the capacity to address data availability issues for indicator-based assessments.

To bridge this gap, we use the Global Delta Risk Index (GDRI), which is composed of multiple components to assess risks to livelihoods: hazards, vulnerability, and exposure of social-ecological systems. The modular library of indicators of the GDRI has been further aligned with the Sustainable Development Goals (SDG) and the Sendai Framework for Disaster and Risk Reduction (SFDRR). To improve the accuracy of the risk assessment, the list of indicators has been weighted and scored through consultation with stakeholders.

This research presents the initial results of a multi-hazard risk assessment that encompasses SDG and SFDRR indicators in three Asian river deltas: Ganges-Brahmaputra-Meghna, Mekong and Red River. This work aims at better informing risk management and supporting delta-level interventions to influence progress towards sustainability and resilience of river deltas.