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The Kolonnawa Divisional Secretariat Division of Sri Lanka faces annual floods, with seven significant flooding events in 2023. The leading cause is the destruction of wetlands for human settlements. In response, ecosystem-based projects like the Metro Colombo Wetland Project, which focuses on ecosystem-based approaches such as wetland restoration and conservation, have been implemented. Knowledge dissemination, power relations, and decision-making required for ecosystem-based disaster risk reduction projects are top-bottom. Local knowledge and people's decisions essential in ecosystem-based Disaster Risk Reduction (DRR) are frequently overstated in theory and practice. Therefore, this research was conducted in the Saalamulla Grama Niladharee Division of Kolonnawa using a qualitative case study design approach involving 45 semi-structured interviews and one focus group. This approach allowed for in-depth exploration of the participants' experiences, perceptions, and attitudes, providing rich and nuanced data. The findings are presented in four themes. The themes are people's knowledge and awareness of the role of wetlands in flood risk reduction, people's perspectives regarding implementing ecosystem-based DRR in Kolonnawa, barriers to people's participation, and ways forward in ecosystem-based DRR.

The four themes indicated that local people are aware of the role of ecosystems in disaster risk reduction but are not interested in ecosystem-based DRR due to potential land issues and concerns about income loss, neighbourhood loss, relocation, and homelessness. However, they expressed an interest in participating in ecosystem-based DRR at the expense of a change in DRR policies, empowering local communities in decision-making, encouraging local leadership and co-production knowledge, and integrating ecosystem-based approaches with engineering solutions. Therefore, the study underscores the urgent need for a paradigm shift to empower local communities in ecosystem-based DRR and recommends further research to support the change.

Keywords

Sri Lanka; Ecosystems; Floods; Qualitative; Disaster Risk Reduction