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Grass-root stakeholder involvement for identifying causes for natural disasters in riverine environments: Ma Oya case study

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Natural disasters are often linked with the excessive use of natural resources. Floods, land erosions and droughts are three major natural disasters that can be linked to river basins. The objective of this study is to identify the possible reasons for natural disasters in a river and its valley through a process developed for eliciting grass-root level stakeholder knowledge. Grass-root stakeholder involvement could result in unfolding the real life socio/political situations, which could otherwise lie beneath the rationale, put forward at professional levels. The study was carried out in the middle reaches of Ma Oya river basin situated in North Western Sri Lanka.

The two major natural disasters identified by the stakeholders are the damages to the river embankments and property during floods and the prolonged dry seasons with water scarcity nearing drought situation. The major cause for both the above disastrous situations identified is the excessive levels of sand mining in the riverbed. Interestingly, the stakeholders voiced their opinions on a number of possible remedial actions that could be taken to improve the situation such as building short dams across the river at selected locations to raise the water level and demarcation of river reservations. Indiscriminate and illicit felling of trees along both banks and in the upper catchment and mechanized clay mining on the banks of the river and its tributaries are identified as the other contributory factors. The study showed that involvement of grass-root stake holders could elicit actual situation and also that they could provide with real life solutions to improve the situations.

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