

A PROPOSAL TO ESTABLISH AN EFFICIENT RIVER BASIN MONITORING UNIT

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Sri Lanka is blessed with one hundred and three (103) river basins. Since ancient times, Sri Lankan farmers in the dry zone trapped water within these flood plains of the river basins utilizing small water tanks by constructing earthen dams (these tanks are locally termed as “Wew”). There was a well-balanced groundwater flow between the cascade system and the river flow thorough flood plains. A flood plain acts as an aquifer maintaining more or less constant groundwater level and the river flow maintains the surface moisture in soil. Some paddy lands in the dry zone need very low surface flow to maintain the right moisture in the soil.

Illegal and destructive sand mining in almost all of these rivers has been a major environmental issue of the country. Flood plain sand mining is being increased in many of the above-mentioned rivers and the urgent need to institute remedial measures has become imperative if irreversible damage to paddy cultivation, groundwater and environment is to be averted.

Sand and clay mining in flood plain of Ma Oya could be the worst scenario of flood plain mining in Sri Lanka. Walawe, Kirindi Oya and most recently Yan Oya flood plains have been excavated to exploit few millions cubic meters of sand and it is certain that the sand miners will extend the same towards downstream flood plains in the future.

When mining is carried out near river estuaries and upstream, salt water intrusion is a certainty causing elevation of salinity levels in surface and groundwater. Data available on basin level soil fertility, soil geochemistry and groundwater behavior in aquifers is very limited in the country. Allowing illegal and unregulated sand mining especially within fertile floodplains may cause irreversible damage to river basins. It is therefore proposed to establish a joint monitoring unit preferably with enforcement powers and rigorous monitoring mechanism to measure the impacts of sand mining to all above mentioned river basins as swiftly as possible with a mechanism to declare strictly protected areas, and also to identify areas suitable for mining operations.

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