

Illicit river sand mining in Sri Lanka: impact on environment, agriculture and the community

K. Athukorala¹, C.M. Navaratne² and R.U.K. Piyadasa³

¹ Network of Women Water Professionals, Sri Lanka

² Dept. of Agric. Engineering, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya

³ Department of Geography, University of Colombo, Colombo, Sri Lanka

Abstract

Sri Lanka's construction industry contributing over 8% to its GDP, requires over 7 million cubic meters of sand annually (expanded in the short term due to additional demands of post tsunami construction) which is obtained from the country's river beds, river sides or mined from previous riverbeds and sand dunes. Though until recently manual harvesting was the norm, increasing mechanized and often illegal, river sand harvesting has led to problems of ensuring water security and ecosystem damage due to lowering of water table, bank erosion, land degradation and salinity intrusion; damage to infrastructure; increased health hazards and negative impacts on human being. In particular, concerns are raised about the increasing damage to drinking water sources, loss and damage to irrigation systems and agricultural lands and spread of vector borne diseases by providing the breeding grounds for mosquitoes.

River Sand Mining (RSM) in Sri Lanka has not yet been investigated by environmental researchers. Development of alternate construction technology and manufacture alternate sands for construction is long overdue. Benefits of reducing conflict in RSM affected areas and improving efficiency in use of natural resources need to be recognized. Long term RSM related impacts including lowered levels of food security, rural out-migration and reduced agricultural efficiency need to be studied further from a macro perspective. While an advocacy alliance can highlight the need, the state has eventually to undertake remedial action.

Uncontrolled illicit RSM creates a level of damage to rivers that are ecologically irreversible in the long run; an urgent and sustainable solution is now needed for the affected rivers and communities in Sri Lanka. The worst affected rivers such as Deduru Oya and Ma Oya is in critical need of a moratorium on RSM in order to regenerate even minimally. Though the mining of shore sand is altogether prohibited in the draft national sand policy, recent media reports indicate that moves are underway to mine off shore sand with foreign collaboration. While this may be provide a solution to contain the escalation of damage to rivers caused by RSM, the problems of declining water security, lost national investment, diminished intergenerational equity, accelerated social disharmony and vanished livelihoods will remain.

Keywords: River Sand Mining, Construction Industry, River Bank Erosion, Land Degradation, Shore Sand