ENVIRONMENTAL EFFECTS OF SAND MINING IN MAHA OYA

By

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ABSTRACT

Sand mining Is the cuprite for many environmental damages we presently see. In Sri Lanka, sand mining is done in many rivers. In this research Maha Oya river banks was investigated to examine the environmental damage due to sand mining and soil mining. The demand for sand is in a rise especially due to heavy industrialization of western province. Three fold approches were employed for the investigation. The first approach was by conducting a questionnaire survey to the surrounding people in the selected area which use for sand mining. The second was to evaluate the extracted amount of sand taken from the sand mining pits. Volumes of sand mining pits were obtained by calculation methods. The third approach was by investigating the status of the pit through the evidences from the authorized government and private organizations and from the people living nearby affected area. The health effects due to sand mining, washing off of lands to Maha Oya, damages to the buildings, culverts and roads, odd taste of water from wells, were found to be more severe in Katana divisional secretariats. The largest extracted amount of sand was from the Katana divisional secretariat and the value was 20994830m^3. The amount of eroded lands in Dankotuwa, Divulapitiya and Katana divisional secretariats are 8.31acres, 14.16acres and 21.31acres respectively. The lowering of the water table is 12metres from its initial level in studied area. The habitat losses can be seen mainly in Divulapitiya D.S. Five fish types have extinct within last 5 years. The extent of the eroded area of the coast is about 18m inwards within the past 65 years period in the area included to study. The rate of erosion per year is 0.2-0.4 meters. By using alternatives for river sand can help resolve this problem immensely. A forestation of streams and of the banks of streams, reservation of a prescribed stretch of land free of cultivation along the banks of streams, conservation of vegetation along the banks, prohibiting agricultural practices causing soil erosion, restricting the use of land for agricultural practices in order to prevent or control soil erosion or to protect the sources and banks of streams are some of the steps can be taken. Restoration efforts should concentrate on techniques that will optimize fish production, promote aquatic diversity. These methods could possibly be the ultimate solution for the problems associated with sand mining in the country.