F-27: Environmental impacts of sand mining in the Nilwala Ganga

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The Nilwala River basin converse 1000 sq. km of drainage area. The river, in its 72 km southerly course drops about 1000 m flowing into the sea at Matara on the southern coast. Excessive sand mining is a very serious environmental problem in the basin. During the last 20 years the volume of sand mining has very rapidly increased due to the development of construction industry.

The objective of this study is to identify and assess the environmental impacts of sand mining in the Nilwala Ganga.

The data end information of the study was gathered on the usual anthropological methods such as questionnaire survey, discussions and field observations. Also the depth of the river channel was manually measured. The 14 sand mining locations along the river from Akuressa to Nadugala were selected for study sites. 68 respondents such as pedal boat owners, labourers and villagers were interviewed.

The average annual volume of sand mining of the Nilwala river is 0.1 million m^3. During the last 10 years, the volume of sand mining increased by about 15 fold. The main negative environmental impacts are: river bank degradation, river bed erosion, lowering the water table, salt water intrusion, water pollution, damage of road, destruction of river bank vegetation, bio-diversity degradation and paddy yield failure etc. The positive impacts are: increase of income generation of poor families and lowering the flood level due to the enlargement of river channel. If these trends continue, the flood plain environment will be degraded. Therefore there is an urgent need for sand mining control.

Financial assistance by NARESA (Research grant RG/92/E/03) is acknowledged.