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Viable approach towards the sustainable utilization of Negombo lagoon

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Negombo lagoon is a shallow coastal water body located on the west coast of Sri Lanka with vital economic importance. It has had a long association with the fisheries industry of the country. During the past 25 years development activities associated with the fisheries industry in Negombo lagoon have been taken place without due consideration to its aquatic environment. To ensure sustainable management of the Negombo lagoon it is imperative to conserve the natural habitats and extract only the sustainable fish yield, which does not exceed the reproductive capacity of the lagoon.

In this study an attempt was made to identify the major factors that determine the use of illegal fishing methods which disturb the sustainable utilization of the lagoon, to examine the factors that determine fishing income of the fisherman and to explore the contribution of the Special Area Management (SAM) project in order to reduce illegal fishing.

The results highlight that the fishing methods employed in Negombo lagoon are significantly determined by the participation to the awareness programmes of the project, initial capital requirement and cost of fishing. This study further reveals that the fishing income of the fishermen is significantly determined by the method of fishing used, education level and fishing experience of the fishermen.

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Domestic water scarcity and rain water harvesting in non-perennial river basins Sri Lanka, Case-study: Maspotha and Ganewaththa villages in Daduru Oya basin

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Rainwater Harvester (RWH) has a long history in Sri Lanka. Spatial water scarcity within the intermediate zone has masked by the aggregative statistics. Sufficient number of natural and man made water sources available within the zone. But most of them get dried in advance of dry season. Urbanization and population increase have been amplified the ground water extraction. Maspotha and Ganewaththa areas have been identified as most dried areas in Daduru Oya basin. Objective of this study is to identify the natural and physical resource availability to introduce RWH systems. Randomly selected households samples were interviewed. Secondary data were collected from International Water Management Institute and from other relevant government offices. Multiple regression analysis was done to identify significant factors. Descriptive analysis was done from other collected data. Land fragmentation and the urbanization are significantly affected for the present increment of spatial drought frequency. 55 percent of households use their own well for drinking water and 30 percent of households use community wells for drinking water. Ownership, water availability and the proximity to water source determine the amount of water usage. The pattern of the domestic water usage has been changed over the time and 15 percent of households have water sealed bathrooms. The average roof area and the average rainfall have shown positive sign for application of RWH systems. Introducing the RWH is difficult because of lack of technical knowledge and modest experiences about RWH within community. Satisfactory domestic water supply in close proximity would make more direct and indirect benefits.