

**MAXIMUM SUSTAINABLE YIELD OF FISHERY RESOURCES
IN THE MAHAWELI RIVER BASIN**

by

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The concept of maximum sustainable yield is widely used in the field of fishery science to evaluate the biological status and the extent of exploitation of fishery resources. Since Mahaweli river basin includes a large number of perennial and seasonal reservoirs and a vast extent of flood plains, knowledge on the maximum sustainable yield of the fishery resources in this river basin would be of great importance for the development and efficient management of inland fisheries of Sri Lanka.

Of the four types of fisheries identified in the Mahaweli river basin, viz, the riverine, estuarine, flood lake and reservoir, the highest contribution to the inland fish production comes from the reservoir fisheries. Maximum sustainable yield from the ancient major perennial reservoirs in the Mahaweli river basin is estimated to be around 2200 MT/annum. Potential yield from the ancient medium scale reservoirs and new major reservoirs is estimated to be around 1060 and 2570 MT/annum respectively. Potential yield from the seasonal tanks and flood lakes has been estimated to be around 3560 and 960 MT/annum respectively. Although much statistics on riverine and estuarine fisheries are not available, it has been suggested that a yield of at least about 20 MT/annum could be obtained from these resources.

However, with the increasing population, even though maximum sustainable yield is obtained, fish catch from the four types of fisheries mentioned above appears to be insufficient for the people living in the development regions of the Mahaweli scheme. Therefore, aquaculture programmes both intensive and extensive may have to be carried out in order to meet the increasing demand for animal proteins.