

## ABSTRACT

This dissertation is the result of a study carried out during a seven month period from January to July 1985, in the Maduru Oya Reservoir. The fishing is done by 5.6 m fibre glass "Kulla" boats and is exclusively a gill net fishery. There is one landing site for the reservoir and the estimated landings at the site during the seven month period is three hundred MT. An average of 96 craft per month had been in operation and about 150 fishermen were engaged in the fishery.

The growth parameters for the major species Oreochromis mossambicus were estimated to be  $L_{\infty} = 35.5$  cms and  $K_{(annual)} = 2.062$ . The instantaneous natural mortality was estimated at 2.736. The length weight relationship was estimated to be  $W = 0.1374 L^{2.3999}$ .

The potential fish yield was estimated to be 953 MT. per annum. The exploitation rate was determined to be .26 which indicates that there is room for expansion of the fishery.