

**IMPACTS OF DAM CONSTRUCTION OF UPPER KOTMALE  
HYDROPOWER PROJECT IN KOTMALE OYA, TALAWAKELLE  
ON VERTEBRATE FAUNA AND POSSIBLE MITIGATION  
MEASURES**

A PROJECT REPORT PRESENTED BY

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to the Board of Study in Environmental Sciences of the  
**POSTGRADUATE INSTITUTE OF SCIENCE**

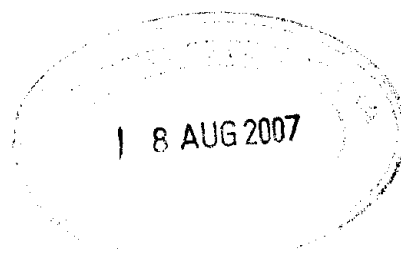
*in partial fulfillment of the requirement  
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The impacts of dam construction in Kotmale Oya by the Upper Kotmale Hydropower Project at Talawakelle, Nuwara eliya district have been debated for more than a decade of period. The Talawakelle intake dam will inundate the grass land, home gardens and biologically important river banks, and specially spray zones. The Environmental Impact Assessment (EIA) of Upper Kotmale Hydro Power Project and other few Initial Environmental Experiments (IEE) of the mini hydro power schemes in the area are the few works carried out to record the species diversity and the impacts on them due to the accelerative large or small scale hydropower projects. Hydro Power schemes involve inundation, excavation, construction, tunneling, and spoil dumping pose impacts on vertebrate fauna that lie in the river bank and the home gardens and other riverine habitats. The study was carried out to identify the biodiversity richness and distribution of the inundation area and to study the possible impacts and thus mitigation measures.

Fishes, Amphibians, reptiles, birds, and mammals were recorded through a routine sampling procedure, and identified as far as possible using standard guides and methods. Twelve species of Amphibians, 10 species of reptiles, 65 species of avifauna, and 15 species of mammals were recorded from the project area. The habitats of these species are mostly in the river bank and will be affected by the UKHP project work. The proposed mitigatory measures will remediate the effect to some extent and the conservation measures such as captive breeding should be started immediately.