## Post Conflict Socio-Economic Recovery of a Disaster Affected Society by Timely Engineering Intervention of Restoration of Blasted Kalmadu Irrigation Scheme with Environmental Mitigation Measures

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## **Abstract**

Due to the man made blast, entire water stored in Kalmadu irrigation tank passed through the 125 m length and about 15m depth breach. This led the1397 ha of total irrigable area under gravity irrigation system was abundant for eight seasons. Species recorded of project area identified native, endemic plants 86% and 8% respectively. Fauna and flora found are common and the habitats are secondary in origin. Similar habitats were identified in surrounding, hence no possible threats to any important ecosystems. With the improvements in the dam and its operational efficiency, the overall impact is positive because it would result in a more favourable condition for the aquatic life in the reservoir and the river downstream and this scheme was functional until the year before the blast. EMP was monitored by the Environmental monitoring team at the field and mitigation measures were addressed by the contractor. More than 100,000m3 of earth (SC/GC material) collected from the tank bed was used for the construction for the closure of this breach. Resettled 4641 families with 18335 individuals were used for manual labour which was about 50-75 % of total labours used, to facilitate immediate employment for the IDPS from Kalmadu area with the purpose of uplifting livelihood and mental stability. After the completion of the work the paddy production is 8382 ton/year. Average per capita consumption of 108kg/individual results, 23.6% of the production is self sustain the Kalmadu area and the rest 76.4% is mixed with the national supply.