

## FROM THE EDITOR...

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The Malwathu Oya, being the second longest river in Sri Lanka, is the birth place of ancient Sri Lankan civilization. The flat arable lands by the sides of the river supported a sizable ancient urban civilization for a continuous period of 1400 years. The river originates from the Ritigala mountain range, which comprises four main peaks (the highest of which is over 900 m), and it serves as the main catchment of the river and it empties to the sea on the northwest coast, into the Gulf of Mannar, near Vankalai. The river has the second largest catchment area in Sri Lanka. However, it is a seasonal river that spans over 164 km through paddy and forest lands, which are used by the inhabitants to cultivate for their survival. The giant tank which is located in Mannar District is fed through the Malwathu Oya river. The area surrounding the giant tank is defined as the “rice bowl of Sri Lanka” due to its importance to paddy cultivation in Sri Lanka. One of issues of the Giant tank is the seasonal drying up of the tank which affects cultivation.



With the problem identification, the lower Malwathu Oya project was initiated to alleviate water related issues. Proposed lower Malwathu Oya reservoir is located across Malwathu Oya at Kappachchi which lies in Anuradhapura and Vavuniya Districts. This project envisages construction of a 209 million m<sup>3</sup> (MCM) capacity reservoir (which will be the largest reservoir in North Central province), 3.59 km long earth dam, radial gated spillway, left bank, right bank and river sluices, Canal systems to new settlement area and a power house.

Stored water at proposed reservoir is released through the river sluice to the Malwathu Oya and picked up at Tekkama anicut which is 24 km downstream from the proposed Malwathu Oya reservoir. The anicut was constructed by King Datusena (459-477 AD) with giant granite blocks using a rocky foundation at an angle across the river. This anicut is about 640 feet (approx 200 meters) long, 90 feet wide (27.5 meters) and rises up to 12 feet (3.7 meters).

After the construction of the lower Malwathu Oya reservoir, Tekkama anicut is supposed to deliver 500 cubic feet per second and 250 cubic feet per second capacities through right bank and bank canals, respectively. These two canals will convey water to irrigate 24,450 acres and 6,230 acres under existing Giant's tank and Akitamuruppu tank, respectively. 2,000 acres of new irrigable lands just downstream of the reservoir is proposed to introduce commercial farming and 675 acres of lands identified for paddy cultivation. Other expected benefits are, provision of 2.0 MCM of domestic water annually to the new settlers, generation of 4.28 GWH hydro power energy annually and improvement of agricultural activities, livestock development and other infrastructure development. With the completion of the Lower Malwathu Oya project, resilience of crop cultivation is to be enhanced.

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