TRANSACTIONS OF
THE ENGINEERING ASSOCIATION OF CEYLON


(Visit 25-28 June, 1925).

By

W. BROWN, B.Sc. (Edin), M.Inst. C.E.

Deputy Director of Irrigation, Ceylon.

Kalawewa Tank—N.C.P.

Restored circa 1887.
Area at Full Supply Level 4,337 acres.
Capacity 39,840 acre feet.
Head of water at sluice 23' 10".
Estimated irrigating capacity 13,000 acres.
Extent now being irrigated 6,444 acres.
Catchment area 325 sq. miles.
Estimated maximum run-off 52,000 cusecs.

Kalawewa was first built about the year 460 A.D. by the formation of an earthen embankment 4½ miles in length and 60 feet high across the valley of the Kala-Oya just below the confluence of the Dambulla and Hawanella Rivers. The old spillway ingeniously formed in part of the earth bund by protecting a length with heavy rubble pitching, was insufficient to pass heavy floods and was the direct cause of the breaching of the tank circa 1887; the tank was restored by diverting the bund past the breach and by the construction of a fine masonry spill 560 feet in length. A "Yoda Ela" (or Giant's Canal) 54 miles long was cut to carry water
to Anuradhapura. This Yoda Ela has also been restored and now feeds no less than 60 Village Tanks and provides a reliable source of drinking water to more than 100 villages and to the inhabitants of Anuradhapura.

**Kanthalal Tank—E. P.**

Restored circa 1876.
Area at Full Supply Level 3,263 acres.
Capacity 37,124 acre feet.
Head of water at sluice 28 feet.
Estimated irrigating capacity 6,244 acres.
Extent now being irrigated 4,815 acres.
Catchment area 77.1 sq. miles.
Estimated maximum run-off 20,000 cusecs.

An inscription on the head-wall of the Left Bank sluice records that the tank was originally built by King Mahasen in A.D. 273. It is said that the dam was gradually damaged by rainfall, but it is probable that the tank did not breach but has always been capable of holding water.

The spill is on a rocky ridge without any cross wall except that formed by the masonry invert of the road bridge which crosses it near the 86 mile-stone of the Kandy-Trincomalee road. The bridge has five spans of 10 feet, 6 feet high to bottom of girders, separated by 4 feet piers.

**Minneri Tank—N.C.P.**

Restored circa 1903.
Area at Full Supply Level 4,560 acres.
Capacity 70,726 acre feet.
Head of water at sluice 33 feet.
Estimated, irrigating capacity 11,000 acres.

Extent now being irrigated 1,060 acres.
Catchment area 81.3 sq. miles.
Estimated maximum run-off 21,000 cusecs.

The tank has the largest storage capacity of any in Ceylon and is remarkable in that it has been formed by connecting up high ground across the valley of the Minneri Oya by a total length of embankments of only 1,620
feet. It is situated within twelve miles of the old Capital, Polonnaruwa, and must in ancient days have irrigated an extensive area of land which is now overgrown with forest.

It is well worth a visit if only to inspect the ancient "hissokotuwa" at the left bank end of the bund which has been restored and utilised as part of the left bank sluice.

There are two sluices now in use and an old sluice in the right bank end which has been blocked up. The overflow passes through two natural channel spills (67 and 60 ft. wide) on the 12th and 12½ miles of the Habarana-Polonnaruwa road.

Topawewa—N.C.P.

Area at Full Supply Level 1080 acres.
Capacity 6,250 acre feet.
Head of water at sluice 14' 6".
Estimated irrigating capacity 500 acres.
Extent now being irrigated 408 acres.

This tank is classed as a Village Work and was restored, and is being maintained by the villagers. It is interesting historically in that it is the last of a chain of tanks on a Yoda Ela from the Ambangauga probably referred to in the Mahawansa, as the "Sea of Parakrama."