Irrigation Department Regional Office - Trincomalee

The Office of the Director of Irrigation, Trincomalee is responsible in the District Level Irrigation related activities and monitoring divisional level work places. In the region there are Anicuts and Tanks.

The Trincomalee region is divided into three major divisions as Kantale, Morawewa and Mutur in order to ease operations of improvements and maintenance of the field and water issues. And also there is an unit workshop at Kantale with Mechanical Engineer in order to carry out the works related to mechanical engineering.

The following table shows the filed extend under the each division and each scheme.

<table>
<thead>
<tr>
<th>Division</th>
<th>Name of Scheme</th>
<th>Command (Acs)</th>
<th>DS Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kantale</td>
<td>Kantale</td>
<td>18,560</td>
<td>Kantale</td>
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<tr>
<td></td>
<td>Vendrasan</td>
<td>1,606</td>
<td>Kinniya</td>
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<td></td>
<td>Wan-Ela</td>
<td>1,576</td>
<td>Thampalagamam</td>
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<td></td>
<td>Peramaduwa</td>
<td>668</td>
<td>Kantale</td>
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<tr>
<td></td>
<td>Janaranjanawewa</td>
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<td>Kantale</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>24,410</strong></td>
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<tr>
<td>Morawewa</td>
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<td>4,491</td>
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<td></td>
<td>Mahadiluwewa</td>
<td>2,140</td>
<td>Morawewa</td>
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<tr>
<td></td>
<td>Yan Oya Anicut Scheme</td>
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<td>Kuchchaveli</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>8,151</strong></td>
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<td></td>
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<tr>
<td>Muthur</td>
<td>Allai Extension Scheme</td>
<td>25,000</td>
<td>Muthur</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Seruwila</td>
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<td></td>
<td></td>
<td></td>
<td>Verugal</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25,000</strong></td>
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<td></td>
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<tr>
<td><strong>Regional Total</strong></td>
<td><strong>57,561</strong></td>
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</table>

The following rehabilitation programme are under taken in addition to O&M, block vote and Ministry vote in this region.
- Dam Safety and Water Resources Planning Project (DSWRPP)
- Climate Resilience Improvement Project (CRIP)
- Rehabilitation of downstream development of Yan Oya Anicut Scheme under Yan Oya Reservoir Project

**KANTALE DIVISION**

The office of the divisional irrigation engineer located by the side of the Kanthale tank covers the command area of Kanthale reservoir, Venderasan tank, Wan-Ela tank, Janaranjanawewa and Peramaduwa tank. The total extent of 24410 acres under the purview of this division. Mahaweli water feeds to Kanthale and Vedra san through Minneriya-Kanthale Yodha Ela (MKYE) in addition to the normal yield from its own catchment.

The command area of Kanthale tank fallen to three DS division namely Kanthale, Thampalakamam and Kinniya whereas all other schemes irrigable area comes under Kanthale DS division. The Peramaduwa tank fallen in the DS division of Madirigiriya which is in the Polonnaruwa district and the command area in the Kanthale DS division.

Kanthale Tank has a capacity of 114,000 ac.ft with FSD of 38.75 ft. The 2524 M long bund provided with rip rap. It has oggee type spill way with 10 Nos. 15’0”x8’0” radial gates. The spill stream is encroached for most of the length and, information to be given to the people, GA Trincomalee, DS Kanthale and Police Kanthale while releasing water by opening the gates. Some quantity of this water in this stream deviated to Wan Ela tank at the point called Kusumankada. There are so many stick dams constructed across this stream by the cultivators and farming activities being carried out in large extent of land outside the scheme.

There are two sluices in the reservoir and both sill levels are same. RB sluice is called Montana sluice and this partly goes through tunnel operated manually. The LB sluice has been reconstructed after the disaster in 1986 and is electrically operated.

Thampalakamam fields are irrigated by diverting water from main drainage cum feeder canals. Kovil aru, new pitchaveli and Old pitchaveli drainage canals are being used in Thampalakamam area. The water in LB main canal diverted at Mullipothana by an anicut and sent through mullipothana main canal to irrigate tracts 1-12. The tracts 11 &12 which is in the tail end of the mullipothana canal is not receiving adequate water because tapping by encroachers. Also the Senavelikulam which is a storage tank in the tail feed by this canal to supply tracts 11 &12.

**Project Management Committee (PMC)**

There is PMC for the tank which makes all decisions in respect of the tank. It has representatives of Kanthale, Venderasan and Wan Ela farmers. A Project Manager (RPM) appointed by IMD and function in a separate office. The cultivation meetings is being held after the calendar dates by the Mahaweli water panel meeting which used to held at Gannoruwa in Peradeniya. DI, IE, RPM and farmer representatives are attending the water panel meetings. PMC has its monthly meeting at Kanthale and DIE attend this usually.

**Trincomalee Water Supply**

Water is being drawn from the tank for the water supply to Trincomalee and suburb area. The water supply scheme was commissioned in 1984/85. There is no agreement in force between ID and NWS&DB on the extent of water that could be drawn for domestic supply. There is no record for the quantity of
water pumping daily and NWS&DB behave as independently. This creates problems in planning our activities.

**Minneriya Ela (MKYE)-Kanthlae Yodha**

MKYE has a length of 22 Miles and carrying capacity of 1000 cfs., the 7 miles stretch maintained by DIE Minneriya (Minneriya to GalOya) and balance 15 miles by DIE Kanthale (GalOya to Kithuluthuwa). The gauge readings taken at Kithuluthuwa Bridge to inflow of the Kanthlae tank. There are three spill way along the MKYE.

1. Galoya spill - Ogee type with 9 Nos. 23.5’x 8.0’ radial gate
2. Aluthoya spill - Ogee type with 9 Nos. 23.5’ x 8.0’ radial gate
3. Plank bay spill - 3 Nos.6.0’ x 5.0’ opening

Mahaweli water sent by DIE Minnerya along the MKYE has to be shared equally between Kaudulla and Kanthale tanks. When the Galoya and Aluthoya gates are opened the water flows to Kaudulla tank and DIE Kanthale is responsible for opening the gates.

There are gauges at Galoya and Aluthoya to measure the flow. There is a standing order (original and the version revised) for the operation of the gates during normal and flood periods. It is necessary to have regular co-ordination with DIEE Kaudalla, Kanthale and DI Polonnaruwa regarding sharing of water and flood mitigation.

The water in Galoya shall not be allowed to exceed 06ft. to protect the railway track and the station. Aluthoya gates to be maintained below 08ft. to protect railway line.

**Vendrasan Tank**

This tank has a capacity of 20,200 acft. and a command area of 1606 acres. The catchment area is only 4.3 sq.miles and the catchment contribution is almost nil and thus has to be filled from Kanthale tank through a link sluice. The head of water is 39.50 ft, very high compare to the capacity. There is a 50.0ft spill cum causeway and no history about spilling taken place. Since this tank is never spilling the people have encroached the tail channel and illicit cultivation being done along the drainage. About 150 acres of encroached land are cultivated in the Warapitiya area and the cultivators are pressing to regularize the lands through politicians but hitherto it has been restricted by ID. If Vendaresan kept full it can be used through its main canal to supplement the flow in Mullipothana main canal in difficult time.

**Wan Ela Tank**

This tank haven’t own catchment and is filled by diverting water from the spill drainage of Kanthale tank by an anicut with two radial gates at Kusumankada. The catchment area of the tank is 1.10 sq.mile and the capacity is 2000 acft. 1576 acres are the irrigable area and this tank to be filled 3-4 times during cultivation seasons.

The lands adjoining the inlet channel (2mile 36 cha) has been heavily encroached by Jayanthipura people and about 500-600 acres of land is being cultivated in both seasons without adhering kanna meeting decision and tapping water from the inlet channel. Department agreed to regularized 300 acres and farmers agreed to cultivate Maha season only. But the extent under cultivation is ever increased thereby threatening cultivation of Wan Ela settlers.
Peramaduwa Tank

Peramaduwa is a medium tank situated in the border of the district. The tank falls in Medirigiriya DS division, Polannaruwa district in NCP. 138 Farmers of Tincomalee and 62 Polonnaruwa have been settled in this scheme. 2 acre of paddy land and 1 acre of high land given to each farmer. But Polonnaruwa farmers seldom stay there. There is a jungle tract connecting to Medirigiriya. Although the command area is 668 acres, peoples have been settled only in 400 acres and the channel system to be done for the balance area too. The capacity of the tank s is 2004 acft and not sufficient do the full extent in both seasons. The tank has catchment of 13.5sq.miles and as it very good contributory catchment it spill in every year. The spill was raised by 1'0” and bund by 2'0” in 2008 and the balance 200 acres brought to cultivation. The spill could be raised by another 1’0”.

Leakage in middle section of the spill was arrested by constructing cut off wall in D/S and rubble packing. To prevent the erosion in U/S slope of tank due wave action rip rap was done in 100m-350m and 750m-1320m. Also toe loading done in the section 550m-1150m and 330m-550m is in progress. D4 and FCC 32, 33 & 34 are rehabilitated.

Janaranjanawewa

It is understood that this tank was taken over by the Irrigation Department in 2013 from Mahaweli Authority for the improvement as well as development programme. This was improved under DSWRP Programme during the year 2017 to 2018. Proper documentation for handing over to be organized as early.

Even though the tank was taken over, the lands are under the purview of Mahaweli Authority and a RPM is appointed to the scheme by Mahaweli Authority operating from Medirigiriya. There are 6Nos. FOO in the scheme and none of them are not registered under the ordinance. The access of the tank is a flood protection bund of Mahaweli river of LB side. Groynes are to be provided at suitable locations along the bund in order to protect the severe erosion the modeling process are under way at Hydrology division HO and it is to be followed up.
MUTHUR DIVISION

1.0 General

1.1 The Muthur Divisional Irrigation Engineer’s Office situated at Kallar (renamed as Somapura) controls only one Major Irrigation scheme called Allai Extension scheme (AES) of Koddiyar Pathu are in Trincomalee District. It is a diversion anicut scheme with anicuts across Verugal River and Mavil Aru River which are tributaries of Mahaweli Ganga located in Verugal DS division. The intake structure (Head sluice), LB & RB sluices are in the Seruwila DS division. The scheme has an extent of 17,413 acres as command area as per BOP fallen under three DS divisions Muthur, Seruwila & Verugal. Paddy cultivation being carried out successfully in about 25000 acres including reservation, for both seasons Maha & Yala whereas the legal command area is 17413 acres as BOP and all three communities are holding lands.

2.0 History of Allai extension scheme

Allai scheme was originally a diversion um storage scheme irrigating 4000 acres of private land in Muthur AGA’s Division.

Verugal River (taking off mahaweli Ganga at Kurinochchimunai) was diverted by an anicut called Verugal Anicut to a seven mile long Kallar inlet canal was situated a head slice (functioning as RB slice presently) which controlled supply of water to Allai storae tank in Muthur area. Another medium tank called Peruweli, (also in Muthur area) was also fed from this canal by cutting a canal to a length of 3.0 miles.

The possible tapping of Mahaweli Ganga through Mavil Aru (which takes of Mahaweli at Kandakadu) was studied by Irrigation Department for a long time with a view of doing away with these Allai and Peruweli tanks and extending the irrigation system by means of new canals to envelope a greater area including their tank beds. The proposals envisaged the development of 17,200 acres including the existing lands under these tanks. But the prevalent flow in the diversion scheme was insufficient to meet the demands of the extent of land. Hence improvements of the Verugal anicut by raising its crest from 31.21ft. MSL to 36.75ft. MSL, provision of balancing tank by constructing RB and LB bunds for this old anicut and construction of new anicut across Mavil Aru with 4 No. radial gates were undertaken.

A new outlet structure (Head sluice) was constructed on the flood bund. The Kallar inlet canals also widened and improved up to the earlier mentioned Kallar head sluice of the scheme (now called as RB sluice) was constructed. Two main canals RB &LB were constructed to feed the command. Tank beds of Allai & Peruweli were alienated retaining only portion of the tanks domestic purpose and feeding to the purana lands directly. The construction work in new and improved the scheme called Allai Extension Scheme (AES) was commenced in 1950 and the scheme was commissioned in 1967. The specified extent of the scheme is 17,413 acres but about 22,000 acres of land including reservation, encroachment, and high lands (later reduced by owners to canal level for irrigation purposes) is being cultivated for both seasons.
3.0 Essentials of Allai Extention Scheme

The main components of Allai Extention Scheme are:

- Verugal and Mavil Aru anicuts
- 1000ft. Natural Spill cum causeway
- Flood and training bund
- Intake structure and inlet canal
- RB and LB Sluices
- Irrigation network consisting 2 Main canals, 4 Branch channels, 16 D-channels and Filed channels
- Main, Branch and D channel roads maintained by ID
- Drainage canals
- Mahaweli Flood Protection Bund (MFPB)
- 5 minor tanks within the system
- Buildings

Verugal and Mavilaru anicut

Verugal anicut:

This anicut constructed across verugal aru which is a branch of Mahaweli Ganga has the following features;

- Concrete crest wall in three bays with crest level- 36.75ft.MSL, 3 No. 3ft. dia. Scour sluices with sill level of 26.75ft.MSL.
- Bridge over the anicut with three spans and the deck level is 54.0ft.MSL
- High Flood level of 50.25ft.MSL

Maviaru anicut:

This anicut located in RB side of the Verugal anicut and has the following features;

- 4 No. bays with 20’0”x10’0” radial gates in each bay.
- Sill level of the anicut is 26.75ft.MSL and the crest is 36.75ft.MSL
- Bridge over the anicut with deck level of 54.0ft.MSL

Two numbers of radial gate were collapsed about 20 years back and these two bays were concreted up to 33.75ft.MSL in order to facilitate the irrigation requirement to the crops under this scheme. Improvements to this radial gates are in progress.

1000 feet natural spill cum causeway

This is a natural spill constructed with concrete with crest level of 36.75ft.MSL, at the far end in the RB bund. The slabs of the causeway were damaged in several sections and reconstructed under the Re Awakening project.
brea and the approach of the spill cum causeway was occurred at LB end during the heavy flood in the year 2011. This breached was closed and again it got breached in the year 2012 flood. Then no attempt was not made to close the breach, but a ring bund was constructed during Yala cultivation season in order to irrigate the lands. Since the afflux in this spill was fairly high it was decided to construct a gated spillway at this breach as a provision of additional path to release the flood water. A foundation investigation was carried out by the Director of Geology and the design of the radial gated spillway structure is in progress at design branch in Head Office.

Flood and Training Bund

Both the flood and training bunds have to be strengthen as safety precaution of the scheme.

Intake Structure and Inlet Canal

The downstream of the intake structure (Head Sluice) to be repaired with necessary retaining walls.

Drainage Canals

Since this scheme is in the flat terrain and tail end of the Mahaweli Ganga the drainage is the most facing problem. So the main drainages in the scheme should keep clear before commencement of NE monsoon to facilitate the flow into sea without making damages to the crop.

Mahaweli Flood Protection Bund (MFPB)

This protection bund having length of 14 + km was constructed in the inception of the scheme in order to protect the crops and villages from Ariyamaankerny to Neelapola while over banking of the Mahaweli Ganga.

This bund was got breached in several sections during the heavy flood in 2012 and the breaches were closed, also the bund raised by 3’0” wherever the identified low elevation sections. But again the bund was overtopped in Ariyamaankerny and Neelapola for a stretch and the bund got breached in 6 places in the year 2014 flood. 4 breaches have been closed, one on half way and other small breach couldn’t attend due to continuous rain heavy flow in the river since October 2015.

The bund gets breach, after construction of the outer circular road (Nelaveli- Sampoor road) by the Sri Lanka Army without any consultation of our department. This road act as burrier for free flow of Mahaweli Ganga and this is one of the reason for breaching of the bund.

This matter was brought to the notice to Governor (eastern province), and Government Agent Trincomalee. Discussion was held with Governor, GA, PD RDA (eastern), CE RDA Trincomalee regarding reducing elevation of this road and field visit also made. As a result a portion of the road reduced to the flood protection bund top level in October 2015 by CE RDA. Another portion of the road to be reduced.

Since the intensity of rain fall is fairly very high and the duration is short the flow in the river is comparatively high. So the flood protection bund has to be redesigned and constructed in order to prevent the bund from damages and safeguard crops. Inspection before the rainy season is very essential to ensure its stability.
MORAWEWA DIVISION

The Divisional Irrigation Engineer’s Office situated in Trincomalee-Puttalam road, 24km from Trincomalee town. There are three schemes under the purview of DIE Morawewa and they are:

- Morawewa Morawewa DS Division
- Mahadivulwewa Morawewa DS Division
- Yan Oya Anicut scheme- Kuchchaveli DS Division

Morawewa

This is a major tank with capacity of 31,000 acft and 4041 acres of command area. All three communities are living and cultivating under this scheme. Due to the unease situation prevailed in this area the villagers were displaced, they were return and resettled and the cultivation is being carried out in both Yala & Maha seasons.

The channel system were dilapidated stages and most of them were rehabilitated under PEACE Project as a pilot project. The entire channel system not rehabilitated and due this the farmers facing great difficulties in the irrigation facilities to their field. Namalwatha the tail end of the scheme is most affected area in getting water. The scheme required in rehabilitation of field channels. More attention to be given in this area.

A five year rehabilitation programme PEISEIP is under implementation from 2017 onwards.

Mahadivulwewa

This is a major scheme with 16,400 acft capacity and 3390 acres of irrigable land. All three community are living and cultivating under this scheme and the majority is Singhalese. The cultivation is being carried out in full extent in both Maha & Yala seasons.

This tank gets spill in every year and the cultivators made request to raise the spill by 2ft to increase the capacity. In addition to the command area about 800 acres of land developed and paddy cultivation being carried out in Maha season with rain water and part of the lands in Yala season. Water requirement for this land during the period of shortages managed by drain water from the scheme.

The scheme is not have been rehabilitated after construction. The entire length of retaining wall in the main canal damaged and collapsed. The channel system needs rehabilitation.

Yan Oya Anicut Scheme

This anicut scheme is situated in Pumoddai village in Kuchchaveli DS division. This anicut consist 10 bays with 4 Nos. silt ejecting gates. The irrigable area is 1455 acres which is located 4.8 KM D/S of the anicut. There is one Main canal, one D-channel and 30 Nos. of field channels.

A pumping station is installed at 4.7KM by Sri Lanka Mineral Sand (SLMS) Corporation and water drawn from the main canal to the factory for washing of sand. Over topping and breaching of earthen bund across Savararu river was the severe and long felt problem identified in Yan Oya scheme during rainy seasons. But now the construction of ogee type spillway structure was completed. The Planning for full extent in Maha season is possible. But cultivable command area to be decided for Yala season with the available discharge from Yan Oya reservoir.