

MINOR IRRIGATION

The sector "Minor Irrigation" consists of schemes namely, improvement of Tanks, Ayacut Development, Diversion works and Diversion Channels and Ground water recharge scheme.

Groundwater is the main source for irrigation, drinking and industrial needs of Pondicherry region. The consumption of ground water for irrigation is in the order of around 80% of the total consumption of water for all sectors. The surface water bodies like tanks and ponds that were supplementing irrigation in the sixties have become defunct. Presently the water requirements for all purposes are being fully met out by ground water resources and the extraction of ground water has crossed the average annual replenishment to the aquifers. Owing to this, there is a steep decline of water level in the aquifers to depth ranging from 15-to 35 mts. which has resulted in seas intrusion along the coast. Pondicherry faces an increasingly urgent situation, since its finite and fragile water resources are stressed and depleting while the sectoral demands for agriculture, industry and drinking needs are growing rapidly. If the aspirations of the people of Pondicherry are to be met, concerted efforts have to be taken to reduce the total dependency on ground water by harvesting rain water, conserving and recharging ground water. In the back drop of above, 600 ponds in Pondicherry are desilted for rain water harvesting in a phased manner. Recharge tube wells are constructed in all these ponds as Rain Water Harvesting Structures in order to increase artificial recharge of the sub-surface aquifers. Roof Top Rain Water Harvesting Structures are being constructed in Government Buildings. The programme of underground pipelining for irrigation to avoid seepage losses is encouraged.

Tanks and tube-wells are the main sources of irrigation water in the Union Territory of Pondicherry. However, the well irrigation is dominating compared to the tank irrigation. There are 84 tanks (54 System tanks and 30 non-system tanks) in this region serving a total command area of 6456 ha. These tanks were constructed during the erst while French rule. These tanks derive their supply from the two non-perennial rivers of Sankaraparani and Pennaiyar and also from their catchments. The main source of water is the run off from the North East monsoon rainfall occurring in October to December. In addition, the rivers get regulated supplies from the storage reservoirs situated in the neighbouring state of Tamil Nadu. The aggregate capacity of 84 tanks is 45.19 Mms (1595.7 Mcft). Fourteen tanks; have a capacity more than 0.5Mms. Only four tanks possess capacity exceeding 1.0Mms³. The most important tanks are Oussudu tank (Capacity 15.30 Mm³) and Bahour tank (capacity 5.60Mms³). The former tank is fed by Suthukeny channel and the latter by angaru channel. Further, in this sector, it is proposed for construction of bed dams, bridges, Foot bridges, Culverts, Outer toe walls, Drains, Causeways, desilting of various tanks / Kulams / Voikals, improvements to anicuts, Channels, Surplus courses, Construction of retaining walls, protecting the bunds of voikals, Providing inlet and outlet arrangements with protection works to the tanks, Forming of Minilakes, Removal of shoal and augmentations of storage capacity, Reconstruction of head sluices, damaged regulators, culverts, Providing drainage facilities to channels.

OUTLAY AT A GLANCE

Sector : MINOR IRRIGATION

No. of Schemes : 6

Department : 1. AGRICULTURE
2. PUBLIC WORKS

(Rs. in lakh)

Tenth Plan 2002-07 Approved Outlay	:	5190.00
Annual Plan 2004-05 Actual Expenditure	:	2282.45
Annual Plan 2005-06 Approved Outlay	:	2347.00
Annual Plan 2005-06 Revised Outlay	:	2147.00
Annual Plan 2006-07 Proposed Outlay	:	4393.00

(Rs. in lakh)

Sl. No.	Name of the Scheme	2004-05	2005-06		2006-07
		Actual Expenditure	Approved Outlay	Revised Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(5)	(6)
AGRICULTURE					
1.	Integrated scheme for Development, Harvesting Recharging and conservation of Ground water (BNP)	205.42	521.00	321.00	613.00
PUBLIC WORKS					
2.	Rehabilitation of Irrigation Tanks (BNP)	897.45	721.98	721.98	1150.00
3.	Diversion of Works and Diversion of channels (BNP)	83.76	148.00	148.00	891.00
4.	Ayacut Development (BNP)	153.32	156.79	156.79	136.00
5.	Survey and Investigation of Surface Water (BNP)	0.50	0.01	0.01	5.00
6.	Ground Water Recharge Scheme and Machinery and Equipment. (BNP)	942.00	799.22	799.22	1598.00
Sub-total		2077.03	1826.00	1826.00	3780.00
Total		2282.45	2347.00	2147.00	4393.00

Scheme No. 1

Sector : MINOR IRRIGATION

Implementing Department : AGRICULTURE

1. Name of the Scheme : Integrated scheme for development, harvesting, recharging and conservation of Ground Water.

2. Objective of the Scheme :

In order to meet the relentless increase in the demand for water for various purposes and to achieve the goal of optimal use and sustainability and to derive the maximum benefits through development, storage, conservation, distribution and reuse, it has become necessary to make water resources development more imperative by implementing a comprehensive integrated scheme with the following objectives :-

- i. Rain water harvesting and recharging ground water.
- ii. Water Conservation and Management
- iii. Construction of rain harvesting structures like mini lakes and ponds in Karaikal region
- iv. Assessment of ground water potential and monitoring of ground water quality
- v. Stabilisation of irrigation command.

To regulate the exploitation of groundwater in the Union Territory of Pondicherry, the "Pondicherry Ground Water Authority" will be created during 2004 under the Pondicherry Ground Water (Control and Regulation) Act 2002.

3.(a) Actual physical Achievement 2004-05:

i. Desilting/reconstruction of percolation ponds/channels/water bodies in Govt. prompoko for rainwater harvesting and recharging ground water in nos.	4
ii. Construction of recharge tube wells for recharging ground water in nos.	8
iv. Construction of roof top rain water harvesting structure in the Govt. buildings in nos.	7
v. Renovation of dug wells/dug-cum-bore wells in nos.	30
vi. Construction of roof top/rainwater harvesting structures in private buildings through PASIC	7
vii. Laying of underground pipelines at subsidized cost in mtrs.	41,342
viii. Installation of sprinkler/drip irrigation sets at subsidized cost in nos.	30
ix. Construction of New/Replacement community tube wells in nos.	7

(b) Anticipated Physical Achievement 2005-06:

i. Construction of Farm Ponds in Karaikal in nos.	10
ii. Desilting/reconstruction of percolation ponds/channels/water bodies in Govt. prompoko for rainwater harvesting and recharging groundwater in nos.	15

iii.	Construction of recharge tube wells for recharging ground water in nos.	12
iv.	Construction of roof top rain water harvesting structure in the Govt. buildings in nos	15
v.	Renovation of dug wells/dug-cum-bore wells in nos.	30
vi.	Construction of roof top/rainwater harvesting structures in private buildings through PASIC	8
vii.	Laying of underground pipelines at subsidized cost in mtrs.	20,000
viii.	Installation of sprinkler/drip irrigation sets at subsidized cost in nos.	25
ix.	Construction of New / Replacement of Community tube wells in nos.	3
x.	Distribution of PVC pipes to farmers for construction of tube Wells departmentally at subsidized cost in meters.	4800

(c) Programme envisaged for Annual Plan 2006-07:

i.	Construction of Farm Ponds in Karaikal in nos.	10
ii.	Desilting/reconstruction of percolation ponds/channels/ water bodies in Govt. prompoko for rainwater harvesting and recharging groundwater in nos.	17
iii.	Construction of recharge tube wells for recharging ground water in nos.	12
iv.	Construction of roof top rain water harvesting structure in the Govt. buildings in nos	15
v.	Renovation of dug wells/dug-cum-bore wells in nos.	50
vi.	Construction of roof top/rainwater harvesting structures in private buildings through PASIC	8
vii.	Laying of underground pipelines at subsidized cost in mtrs.	30,000
viii.	Installation of sprinkler/drip irrigation sets at subsidized cost in nos.	32
ix.	Construction of New / Replacement of Community tube wells.	-
x.	Subsidy assistance to water users association in Nos.	2000
xi.	Payment of 100% subsidy assistance for construction of roof top rain water harvesting structures in residential buildings in Nos.	100

4. Remarks : Continuing scheme

Scheme No. 2

Sector : MINOR IRRIGATION

Implementing Department : PUBLIC WORKS

1. Name of the Scheme : Rehabilitation of Irrigation Tanks

2. Objective of the Scheme :

Under this scheme it is proposed to rehabilitate 84 economically viable tanks in Pondicherry region by desilting and standardising the existing tank bunds. It is proposed to improve 84 tanks which has command area of 6456 Ha.with a view to increase the ground water potential and wherever possible, reducing process of salination with a consequent

augmentation in crop yield. The existing river and diversion structures, regulators and supply channels have become obsolete and inadequate to meet the present day requirements. Hence, the need to rehabilitate the tanks.

3.(a) Actual physical Achievement 2004-05 :

- i. Desilting of Oussudu tank and filling the low lying area near Muthirapalayam pumping station forming flood bank in Sankaraparani river and forming Island in Oussudu tank.
- ii. Desilting of ural kulam and Manakulam of Abishegapakkam Village, Pondicherry.
- iii. Forming mini lake at Nallathur in Kurumbagaran revenue village in Nedungadu commune Phase – I Sub work : Protecting the Right Bank of Nandalar river in Mini lake site below Vizhakteri drain.

(b) Anticipated Physical Achievement 2005-06 :

- i. Desilting of Vadhanur tank – Phase –II.
- ii. Construction of outer toe wall for the southern side of Manamedu tank in Bahour Commune.
- iii. Desilting the Olandai tank and forming the flood bank and filling low lying area at various places in Pondicherry.
- iv. Protection work to the newly formed tank at Agaramangudy.
- v. Formation of Minilake at Nallambal in Nallazhandur village.
- vi. Removal of shoal and augmentation of storage capacity of Tail end regulator near JPCOSPIN.
- vii. Providing inlet and outlet arrangement with protection works to the newly formed tank at Agaramangudy village in Nedungadu commune.
- viii. Forming mini lake at Andoor in Ponbethy village (Formation of bank for the mini lake) Phase I.
- ix. Removal of shoal and augmentation of storage capacity of Tail end regulator near JPCOSPIN.

(c) Programme envisaged for Annual Plan 2006-07:

- i. Providing inspection track to the western bund of Oussudu tank Pondicherry.
- ii. Desilting the Olandai tank and forming the flood bank and filling the low lying area at various places in Pondicherry.
- iii. Additional desilting of Panayadikuppam Sitheri.
- iv. Additional desilting of Seliamedu tank.
- v. Additional desilting of Manamedu tank.
- vi. Additional desilting of Irulanchandai tank.

4. Remarks : Continuing scheme

Creation of necessary functional / ministerial posts.

Scheme No. 3

Sector : MINOR IRRIGATION

Implementing Department : PUBLIC WORKS

1. Name of the Scheme : Diversion of Works and Diversion of Channels.

2. Objective of the Scheme :

The Diversion channels from rivers need to be re-sectioned and re-graded in order to ensure optimum utilisation of available surface water. The work involves strengthening the

existing channels feeding the irrigation tanks and also to reconstruct the outdated head works and cross regulators. The Cross regulators are to be maintained. The feeder channels are to be regraded. Weak bunds are to be strengthened.

3.(a) Actual physical Achievement 2004-05 :

- i. Protecting the Left bank of Malatar and Right bank of Authuvoikal below the 12 vent regulator near burial ground in T.N.Palayam village, Pondicherry.
- ii. Impts. to the surplus course of Murungapakkam tank near Villianur road culvert in Murungapakkam village, Pondicherry.
- iii. Reconstruction of veerankoil Head Sluice in the Left Bank of Thalaganiyar in Nedungadu commune.
- iv. Reconstruction Sinnacanny Head Sluice in the Left Bank of North Thalaganiyar in Nedungadu commune.
- v. Reconstruction of Kuttakulam Head Sluice in the Left Bank North Thalaganiyar in Nedungadu commune.
- vi. Improvements to Arukolvadigal in Melaoduthurai village in Karaikal.
- vii. Improvements to Sippi voikal from escape to infall point in Neravy village, Karaikal.

(b) Anticipated Physical Achievement 2005-06 :

- i. Remettaling and black topping the approach road on the right bank of Thirukanji feeding channel from Mangalam road culvert to Uruvaiyar road culvert.
- ii. Impts. to Murungapakkam surplus course from Murungapakkam tank to Komapakkam road in Pondicherry.
- iii. Construction of a bridge across Bangaru channel near Nandhini bar at Karaiyambuthur village.
- iv. Construction of culvert across Bangaru channel near Chinna Karaiyambuthur village Bus stop in Bahour Commune.
- v. Providing retaining wall to the main supply channel of Seliamedu sluice of Bahour tank at ch.985m to ch.1075m near to Seliamedu pet in Bahour Commune, Pondicherry.
- vi. Providing revetment in the right bank of Suthukeny channel of Down stream side of Katterikuppam channel.
- vii. Reconstruction of Pungadi canny H/S in the LB of Nattar below Grand canal causeway in Kottucherry.
- viii. Reconstruction of Nadumadai H/S in the LB of Nattar below Grand canal causeway in Kottucherry commune.
- ix. Construction of culvert across Koilpathu channel near Naveli canny at Pillaitheruvasal in Karaikal.
- x. Construction of culvert across Koilpathu channel below Mukkuttu regulator at Pillaitheruvasal in Karaikal.
- xi. Protecting the leftout portion of Kiliyanoor paigal at Ponbethy in Nedungadu commune.
- xii. Construction of culvert Kiliyanoor paigal at Ponbethy in Nedungadu commune.
- xiii. Impts to the approach road of Arasalar from Puduthurai village near Mosque to ongoing Tail end regulator.
- xiv. Impts to the approach road of Arasalar from Puduthurai village near Mosque to ongoing Tail end regulator.
- xv. Re-constrn. Of damaged regulator cum culvert at Sellur tail end of drainage channel.
- xvi. Providing drainage facilities to Neravy channel near Kavundatheru culvert in Karaikal.
- xvii. Improvements to the Karuvaldi voikal below ONGC Godown in Nadukalampet village.

- xviii. Improvements to the Old Oduthurai channel from offtake to infall point.
- xix. Reconstruction of foot bridge across Nattar at Puthagaram Athangarai street in Nedungadu commune.
- xx. Construction of culvert at the confluence point of Athiyadi channel and Grand canal at Rayampalayam in Kottucherry.
- xxi. Construction culvert across Keezhaparithigudi channel near Pillaiyar koil street at Keezhaparuthikudi in Nedungadu.
- xxii. Reconstruction of culvert cum H/S (Korakattu H/ S) Karapattam channel in Mathalangudy village in Nedungadu.
- xxiii. Urgent Repairs to the LB and RB of Nattar near Parithikudy channel H/S in Nedungadu.
- xxiv. Construction of foot bridge across Karukuthi channel below Surplus escape in Varichikudy at Kottucherry.
- xxv. Re construction of Nallathur vadigal syphon across Vadakkuvveli drainage channel at Pandaravadai village in Nedungadu commune.
- xxvi. Re construction of culvert and strengthening the banks of Sadayan channel at Usupoor pet in Nedungadu.
- xxvii. Re construction of culvert across Sadayan channel at Pandaravadai in Nedungadu commune.
- xxviii. Construction culvert across Kuthiraikuthi channel and protecting the banks at Narikurumbai village.
- xxix. Re construction of Anayarangam channel Head Sluice in the LB of Vanjiar above Agaramangudy regulator in Nedungadu commune.
- xxx. Re construction of culvert across Sadayan channel at Ch. 1975 m to Pandaravadaipet in Nedungadu commune.
- xxxi. Construction of Foot bridge across Karukuthi channel below Surplus escape in Varichikudy.

(c) Programme envisaged for Annual Plan 2006-07 :

- i. Comprehensive Impts. to Suthukeny anicut and Suthukeny channel feeding Oussudu tank.
- ii. Providing retaining wall to the left bank and right bank of Chinna voikal of Bahour tank at ch.1080m to ch.1300m in the down stream of Bahour - Karikalampakkam road culvert at Seliamedu old pet in Bahour Commune, Pondicherry.
- iii. Construction of retaining wall on the right bank of Thiruvandarkoil tank feeding channel at Thirubuvanipet.
- iv. Improvements to Thalatheru channel from Keezhatheru to off take regulator.
- v. Improvement to Sadayan channel from Pandaravadai syphon to Saravanairruppu road culvert in Nedungadu.
- vi. Improvements to the RB of Grand xcanal from Athiyadi channel to Perumalkoil shutter.
- vii. Improvements to the Agaram channel in reaches.
- viii. Impts. To the approach road of Arasalar from Puduthurai village connecting Athipadugai river bund road near Arasalar tail end regulator.
- ix. Formation of New B.T road on the RB of Vanjiar from Lemaire bridge to infall point of Vanjiar into Arasalar.
- x. Providing water lifting facility to Athipadugai village in Thirunallar commune.
- xi. Improvements to the Mudalimedu channel below north Vanjore road culvert.
- xii. Protecting the Kar voikal in T.R.Pattinam commune.
- xiii. Re construction of Rettapallam culvert across Sadayan channel in Narikurumbai pet in Nedungadu commune.
- xiv. Re construction of Mugundhanoor syphon across Kuthiraikuthi channel.

4. Remarks : Continuing scheme

Sector : MINOR IRRIGATION

Implementing Department : PUBLIC WORKS

1. **Name of the Scheme** : Ayacut Development

2. **Objective of the Scheme** :

The work comprises of realignment re-sectioning and regrading of supply channels and lining of canals including irrigation outlet. Irrigation outlets and irrigation structures will be replaced to scientific management of irrigation water. Cross regulators will be constructed. All outmoded bridges will be constructed.

3.(a) Actual physical Achievement 2004-05 :

- i. Impts. to Oulgaret Mettuvoikal from ch.4430m to 5330m in Pondicherry.
- ii. Lining the French channel from Artikayalanka to Muduthumulu, Yanam.
- iii. Grouting and pointing to the revetment and retaining wall in water works.

(b) Anticipated Physical Achievement 2005-06 :

- i. Impts. to Pillaiyarkuppam.
- ii. Protecting the right bund of Periya voikal of Seliamedu sluice of Bahour tank at Seliamedupet village in Bahour Commune.
- iii. Impts. to Pillaiyarkuppam anicut , Pondicherry.
- iv. Protecting the right bund of Periya voikal of Seliamedu sluice of Bahour tank at Seliamedupet village in Bahour Commune.
- v. Impts. to Pillaiyarkuppam anicut , Pondicherry.
- vi. Construction of Retaining wall on right side of Isukakalava from Dommetipeta to Blossom oils Factory in Dariyalathippa Village in Yanam.
- vii. Construction of RCC wall to drainage channel from water works to 8/000 KM.Stone in Dariyakathippa village, Yanam.
- viii. Forming a Metal road from French channel road to Sivudumanyam drainage channel road in Mettacuru village in Yanam.

c) Programme envisaged for Annual Plan 2006-07 :

- i. Formation of Alathuveli road on right bank of Chunnambar in Pornankuppam village.
- ii. Construction of culvert across Kodathur surplus course for approach to Kodathur pet burial ground.
- iii. Providing Lift irrigation Facilities from Godavari river at Farampeta .
- iv. Improvements to the French channel from Bheem Nagar to water works inlet including Reconstruction of damaged retaining wall in Yanam.

4. **Remarks** : Continuing scheme

Scheme No. 5

Sector : MINOR IRRIGATION

Implementing Department : PUBLIC WORKS

1. **Name of the Scheme** : Survey and Investigation of Surface Water

2. **Objective of the Scheme** :

To undertake studies on availability and utilisation of surface water and its conservation and also exploration of soil studies for the proposed irrigation structures.

3.(a) Actual physical Achievement 2004-05 :

- i. Supplying & fixing of granite boundary stone required for demarcation the boundaries of various chls, III batch of tanks in Bahour sub division.
- ii. Surveying & Levelling operation for the work under ISD-II, of ID PWD

(b) Anticipated Physical Achievement 2005-06 :

- i. Survey and demarcation of drainage course of Krishna Nagar, Pondicherry.
- ii. Demarcation & Planting of survey stones for the supply channels of 1st and 2nd sluices of Murungapakkam supply channel.

(c) Programme envisaged for Annual Plan 2006-07 :

- i. Survey and demarcation works.
- ii. Demarcation & Planting of survey stones for the supply channels.

4. **Remarks** : Continuing scheme

Scheme No. 6

Sector : MINOR IRRIGATION

Implementing Department : PUBLIC WORKS

1. **Name of the Scheme** : Ground Water Recharge scheme and Machinery and Equipment.

2. **Objective of the Scheme** :

Adopting various methods for ground water recharge and utilisation of water for irrigation/drinking water supply.

3.(a) Actual physical Achievement 2004-05 :

- i. Desilting the Guduvaiyar river from Kizhur anicut to Mangalam anicut from ch.0m to 8000m in Pondicherry.
- ii. Construction of Diversion anicut across river Pennaiyar (Sitheri) Pondicherry.
- iii. Deepening and improving the Kottagam Shnanam kulam, Kiliyanoor snana kulam and Keezhasembiyangal snana kulam in.
- iv. Deepening of Thamarai kulam, Savadi kulam in Kottucherry and Mariamman koil kulam in Varichkudy koil kulam in Kottucherry commune.
- v. Desilting of Allikulam in Thalatheru Cettiyar kulam in Poovam village Ponnaiyapillai kulam in Thiruvettakudy village in Kottucherry commune.

- vi. Deepening the Karaikal Ammaiyar koil kulam in Karaikal.
- vii. Desilting of Omakulam and Adappan kulam in Karaikal.
- viii. Forming of Mini lake at Chettikottagam at Thennagundy villge in TNR commune.
- ix. Desilting the eareekulam, Oozhipathukulam and pidayrikulam in Neravy commune.
- x. Deepening the periyakulamnear Government higher secondary school at T.R.Pattinam, Karaikal.

(b) Anticipated Physical Achievement 2005-06 :

- i. Construction of bed dam with foot bridge across the river malatar at ch.2220m at Nettareppam village in Nettareppam commune, Pondicherry.
- ii. Construction of bed dam cum bridge across Pambaiyar at the confluence point at Sellipet village.
- iii. Construction of check dam cum low level causeway across Pennaiyar at Aratchikuppam village.
- iv. Construction of bed dam with foot bridge across the river Malatar at Vadukuppam near Pandasozhanallur village.
- v. Construction of check dam foot bridge across south Pambaiyar at Sorapet villae in Mannadipet commune Panchayat.
- vi. Construction of check dam across south Pambaiyar at Sagadapet village in Mannadipet commune Panchayat.
- vii. Construction of bed dam across Guduvaiyar on the Upstream side of Keezhagraharam road bridge in Pondicherry.
- viii. Removal of shoal in the Left Bank and widening the Vanjjar river below Agaramangudy regulator in Agaramangudy village.
- ix. Augmentation of storage capacity of tail end regulator at Kazhugumedu.
- x. Formation of Mini lake at Chettikottagam in Thennangudy village. Sub work: protecting the lake bund eastern side on the road side.
- xi. Deepening the Pidarikulam and Thamburankuttainin T.R.Pattinam, Karaikal.

(c) Programme envisaged for Annual Plan 2006-07 :

- i. Construction of bed dam in chunnambar on the bed of old bridge to prevent entry of salt water in Nonankuppam village, Pondicherry.
- ii. Construction of bed dam across Malatar on the upstream side of T.N.Palayam bridge.
- iii. Impts. to the approach road to Chettikottagam from Muppaithankudy to Agalancannu.
- iv. Augmentation of storage capacity at Nellivoikal.
- v. Impts. To the inspection path in the LB of Arasalar from Neivacherry road culvert to Ozhiapathu foot bridge.
- vi. Construction of tail end bed dam across Mullaiyar river below Nagore road.
- vii. Construction of tail end regulator across Pravadyanar river below Nagore road bridge.
- viii. Formation of minilake in Padutharkolai village.
- ix. Formation of minilake at Mullipalam near Melaiyur village.

4. Remarks : Continuing scheme