

MINOR IRRIGATION

AGRICULTURE

Water is an important basic need for agriculture development and economic advancement in U.T. of Puducherry. It is required for irrigation, drinking and industrial purposes which are mainly met out from ground water resources. Hence the ground water development and management presents a special challenge in view of its cross-sectoral users for drinking, irrigation and industrial purposes. During the Eleventh Five Year Plan, concentration is given on rain water harvesting, water conservation & management. The Puducherry ground water authority under takes periodical monitoring to record the change in the water level and the water quality from the network of observation tubewells. The ground water pollution studies in suspected industrial sites were carried out and remedial measures were initiated.

The Hydrology Project is implemented through the Departments of Agriculture and Public Works with loan assistance from the World Bank for bringing all water related data viz Surface Water, Groundwater, Water Quality, and Climatologically data under one roof, is under implementation in Puducherry region , since 2006-07 onwards and the project will be completed by 2011-2012 (2006-07 to 2010-12).

ACHIEVEMENTS DURING 2009-10

The important physical achievements of the project are as follows :

- 5 observation tube wells have been constructed.
- The proposed river gauging sites (4 nos.) have been finalized and the estimates have been prepared.
- Establishment of a Wide Area Network through BSNL has been finalized.
- The required infrastructural facilities including vehicles for transportation have been created for the project.
- The construction of Data Centre and Level II+ lab building (2 storeyed) is under progress.
- Arc GIS and geotechnical softwares have been procured and being utilized for creation of digital layers.

- Tenders for purchase of technical books for establishing a technical library have been floated.
- 14 nos. of renovation of dug wells / dug-cum-bore wells, 3 nos. of Construction of roof top / rain water harvesting structures, 52 nos. of sprinklers/drip irrigation, and 39,022 mtrs of underground pipelines and 18 nos. of medium / deep tube wells were installed.
- 6 nos. of tube wells in SC farmers holding, 12 nos. of construction of medium/deep tube wells and 13 nos. of construction of filter points / shallow tube wells were installed.

LIKELY ACHIEVEMENTS DURING 2010-11

- Tenders have been floated for construction of 10 nos. of observation tubewells. The balance 12 nos. of observation tubewells are to be constructed before end of March, 2011.
- Tenders floated for establishment of an Automatic Weather Station.
- Tenders towards purchase of water testing equipments, groundwater equipments and surface water equipments were floated.
- Construction of observation tubewells
- Establishment of Wide Area Network(WAN)
- Construction of Data Centre and Level II+ lab
- Establishment of Automatic Weather Station
- GW Equipments, Level II+ lab equipments will be purchased

PROPOSED TARGETS FOR 2011-12:

- Under the World Bank Loan Assisted Project “Hydrology Project Phase-II”, research studies to improve the recharge potential in the North Western parts of Puducherry and a full-fledged climatic station will be established.
- Provision of infrastructure in the State Data Centre
- Purchase and installation of Level II+ lab equipments & Office equipments
- Establishment of full fledged Automatic Weather Station will be established.

PUBLIC WORKS

Puducherry region mostly depends on tank irrigation and underground water resource, while Karaikal, Mahe and Yanam regions depend on river water for the purpose of irrigation.

In Puducherry region, there are about 84 tanks and the total Ayacut covered by the 84 tanks is 6456 Hectares.

The Karaikal region mainly depends on the surface water of Cauvery river distributaries and the total Ayacut covered is 10,974 Hectares.

The Yanam and Mahe regions are of small enclaves in Andhra Pradesh and Kerala States respectively, the irrigation system is in micro level only and the Ayacut coverage in Yanam is 1350 Hectares and in Mahe region is 774 Hectares.

Under this Sector, it is proposed for construction of Bed Dams/Check Dams in order to save more surface water in order to recharge the depleted ground water to avoid the adverse situation arising out of continuous drawl of ground water resulting intrusion of salinity in the coastal region.

- Improvement of storage capacity of ground water.
- Development of surface water by storing water by storing rain water during monsoon season in the irrigations through feeder canals.
- Desilting and deepening of tanks.
- Ponds and kulams.
- Removal of shoals in the river banks.
- Improvements to the inspection paths in the banks of rivers.
- Providing common banks of channels, formation of mini lakes and acquisition of lands for formation of mini lakes at various places.

ACHIEVEMENTS DURING 2009-10

- Construction of check dam cum foot bridge across river pambaiyar at Sorapet village in MCP.
- Construction of beddam cum bridge across Pambaiyar at the confluence point @ Sellipet village, Puducherry.

- Sinking 2 Nos of recharge barewell on the upstream side of Sellipet bed dam Cum bridge at Pambaiyar in Puducherry.
- Sinking of recharge barewell on the upstream side of Ariyapalayam bridge in VCP.
- Construction of a barrage with two lane bridge connecting Uruvaiyar and Villianur across Sankaraparani river at Villianur.
- Sinking one number of recharge bore wells on the US side of Villianur; Sinking one number of recharge bore well at the 2nd cross Natesan Nagar.
- Construction of barrage with two lane bridge connecting NH 45 A and RC 30 across Guduvayur river at Sivarathangam village.
- Sinking two numbers of recharge bore wells one near Ellapillaichavady in Villianur NH 45 A junction and one another at Indira Gandhi Square @ Natesan Nagar.
- Construction of barrage with two lane bridge connecting NH 45 A and RC 30 across Guduvayur river at Sivarathangam village.
- Construction of beddam cum bridge across Pambaiyar at the confluence point @ Sellipet village, Puducherry - Rs.10.03 lakhs.
- Construction of drainage channel to Uthiravaginpet in VCP – 34.40 lakhs
- Construction of barrage with two lane bridge connecting NH 45 A and RC 30 across Guduvayur river at Sivarathangam village.
- Construction of tailend bed dam across Mullaiyar river below Nagore Road Bridge.
- Construction of lift irrigation pump house at island No.3 in Dariylathippa village, Yanam.

LIKELY ACHIEVEMENTS DURING 2010-11

- Augumentation of Oussudu water to Ayeekulam by providing pipe line from Ousteri for recharging the ground water of Ayeekulam Phase - I (i.e.) from Syphon to Ch.1850m.
- Augumentation of Oussudu water to Ayeekulam by providing pipe line from Ousteri for recharging the ground water of Ayeekulam Phase - II (i.e.) from Ch.1850m to Ch.3350m.

- Augumentation of Oussudu water to Ayeekulam by providing pipe line from Ousteri for recharging the ground water of Ayeekulam Phase - III (i.e.) from Ch.3350m to Ch.4800m.
- Reconstruction of Box culvert across Putherivoikal at Mailam Road in Sandaipudukuppam, Puducherry.
- Regrading of the channels in Sivaganapathy Nagar in Villianur Commune, Puducherry.
- Construction of Kondam and protection work to link channel P.S.Nallur tank's feeding channel at Sembadapet Village, Nettapakkam commune.
- Protecting the banks of Pattinam Channel.
- Reconstruction of Konakavelly Head sluice, Puthakudy Head sluice.
- Construction of Retaining wall in LB of Vanjiar at Meerapalli Street
- Reconstruction of Polagam vadigal outfall sluice on the left bank of Pravadayanar in T.R.Pattinam
- Reconstruction of head sluice of Melakottucherry, Senthilery and Paruthikudy
- Strengthening the RB of Thalaganiyar North near Thondamangalampet
- Raising the existing barrage weir level on the northern & southern side of sluice gate Sankaraparani river Villianur Uruvaiyur Bridge.
- Construction of barrage with two lane bridge connecting NH 45 A and RC 30 across Guduvaiyur river at Sivaranthagam village Puducherry.
- Construction of bed dam cum bridge across Pambaiyar at confluence point Sellipet Village, Puducherry.
- Widening the surplus weir of the Kirumampakkam Periyaeri & Cinnaeri in Bahour Commune.
- Protection work to the right bank of Poranthotti thangal surplus course in Irulanchandi village in Bahour Commune, Puducherry.
- Construction of revetment in Pallivasal kulam at Nallambalm, revetment and bathing ghat at Vadakattalaipet at T.R. Pattinam.
- Construction of revetment of LB & RB of Arasalar near Agalancannu
- Construction of Bathing ghats at Bramtheertham
- Construction of revetment and bathing ghat in LB of Thirumalairajanar
- Interlinking of French channel with Advipolam channel and strengthening and existing earthen channel with RCC lining from Pillanka off-take point at Bank canal to Artikayalanaka border limits of Yanam – Consultancy charges cost.

PROPOSED TARGETS FOR 2011-12:

- Forming Road on the main bund of Kariamanickam tank in Nettapakkam commune.
- Reconstruction of inlet shutters of Abishegapakkam tank.
- Providing outer toe wall on the Sathamangalam tank Villianur commune, Puducherry.
- Providing metal road on the foreshore bund of Vannan eri Embalam,
- Providing metal road on the western bund of Vannan leading to Northern Embalam, Puducherry.
- Providing revetment inside the Bahour tank from Karaimedu Madhagu to Valla Madhagu at Karaimedu village in Bahour Commune, Puducherry.
- Protection work to the foreshore bund [Northern side] in the Sadakulam Thangal at Arachikuppam village in Bahour Commune, Puducherry.
- Protection work to the entry point culvert of Bangaru channel at Bahour Commune, Puducherry.
- Protection to the entry point culvert of Nathamedu channels in Bahour Commune, Puducherry.
- Desilting the Sevittu voikkal from Alagulakshmi Road culvert to Kariamanickam kuttai, Nettapakkam commune.
- Acquisition of lands in Korkadu & Vannan eri tanks, Puducherry.
- Construction of the old damaged culvert across Arachikuppam tank feeding channel in Mullodai Kuruvinatham road in Bahour Commune, Puducherry.
- Construction of the old damaged culvert across Kizparikkalpet tank feeding channel in Mullodai Kuruvinatham road in Bahour Commune, Puducherry.
- Lighting facilities to Manampet Thirumaliarajanar and Ananthanallur regulators.
- Reconstruction of Tail end regulator at patchoor.
- Strengthening the Common bank of Thirumalairajanar and Neravy channel of Mulliyar from Oduthurai bridge to Keezhamani bridge.
- Reconstruction of Nattucanni Head sluice at Nalathur .
- Construction of 5 out fall sluices in LB of Mullaiyar between Manjavazhi road and Nagore road bridge .
- Desilting of Suthukeny channel from Suthukeny head regulator to Kunimudakku shutter in Puducherry.

- Construction of barrage with two lane bridge connecting NH 45 A and RC 30 across Guduvaiyur river at Sivaranthagam village Puducherry.
- Sinking recharge bore wells on various rivers beds Sub Division III of ID, PWD.
- Construction of bed dam across river Guduvaiyur at Sathamangalam village.
- Desilting Sankaraparani river from Ariyapalayam bridge DS to Villianur Uruyaiur bridge.
- Protection work in the left bank of River Pennaiyar at Manamedu village in Bahour Commune, Puducherry.
- Protection work in the left and right bank of River Pennaiyar at U/s of Sitheri Anicut in Kuruvinatham village in Bahour Commune, Puducherry.
- Protection work in the right bank of River Pennaiyar at D/s of Sitheri Anicut in Kuruvinatham village in Bahour Commune, Puducherry.
- Construction of two lane road bridge connecting NH 45 A & RC 30 across Guduvaiyar River at Sivaranthagam Village, Villianur commune, Puducherry.
- Reconstruction of the surplus weir of the Panayadikuppam village in Bahour Commune, Puducherry.
- Augmentation of Storage capacity of Nandalar Phase-I.
- Forming Mini Lake at Paduthakollai.
- Providing down stream apron at Agalancannu regulator.
- Protecting the RB of Arasalar at Pump House, Vizhidiyur.
- Interlinking of French channel with Advipolam channel and strengthening and existing earthen channel with RCC lining from Pillanka off-take point at Bank canal to Artikayalanaka border limits of Yanam.
- Formation and providing revetment inside the ground level reservoir in the newly acquired land and providing protection wall along the border of newly acquired land campus near NH 214 road and junction of Yanam drakahsrama road in Yanam.

OUTLAY AT A GLANCE

Sector : MINOR IRRIGATION

No. of Schemes : 5

Department : 1. AGRICULTURE
2. PUBLIC WORKS

(₹ in lakh)

Eleventh Five Year Plan 2007-12 Approved Outlay	:	17474.94
Annual Plan 2007-09 Actual Expenditure	:	2460.08
Annual Plan 2009-10 Actual Expenditure	:	1384.33
Annual Plan 2010-11 Approved Outlay	:	4091.00
Annual Plan 2010-11 Revised Outlay	:	2191.00
Annual Plan 2011-12 Proposed Outlay	:	4515.00

(₹ in lakh)

Sl. No.	Name of the Scheme	Eleventh Five Year Plan 2007-12	Annual Plan 2007-09	Annual Plan 2009-10	Annual Plan 2010-11		Annual Plan 2011-12
		Approved Outlay	Actual Expdr.	Actual Expdr.	Approved Outlay	Revised Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

AGRICULTURE

1.	Integrated Scheme for Development, Harvesting, Recharging and Conservation of Ground Water	1986.00	393.76	263.84	215.00	115.00	215.00
2.	Hydrology Project – II with World Bank Loan Assistance (EAP)	1034.36	--	--	--	200.00	400.00
Sub-Total		3020.36	393.76	263.84	215.00	315.00	615.00

PUBLIC WORKS

3	Augmentation of Surface Water and Strengthening of Infrastructure	7500.00	1056.16	509.92	597.25	597.25	600.00
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(₹ in lakh)

Sl. No.	Name of the Scheme	Eleventh Five Year Plan 2007-12	Annual Plan 2007-09	Annual Plan 2009-10	Annual Plan 2010-11		Annual Plan 2011-12
		Approved Outlay	Actual Expdr.	Actual Expdr.	Approved Outlay	Revised Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
4	Augmentation of Ground water recharge scheme	6850.00	960.16	562.78	278.75	278.75	300.00
5	Creation of infrastructure facilities in Tsunami affected areas	104.58	50.00	7.79	--	--	--
	Negotiated Loan	--	--	40.00	3000.00	1000.00	3000.00
	Sub - Total	14454.58	2066.32	1120.49	3876.00	1876.00	3900.00
	Total	17474.94	2460.08	1384.33	4091.00	2191.00	4515.00