

FLOOD CONTROL

All the four regions of the Union Territory of Pondicherry are located on the sea coast traversed by major river estuaries. Pondicherry region lies at the tail end of two major river basins viz. river Sankaraparani and river Pennaiyar. Karaikal region is situated at the tail end of Cauvery river basin. Yanam is located at the tail end of Godavari river basin and Mahe is situated at the tail end of river Mahe and river Ponniam. Pondicherry, Karaikal and Yanam receives an average rainfall of 1200 mm and Mahe receives 3300 mm as it is located on the rain fed region of western ghats. Being located at the tail end of river valleys, the Union Territory suffers for want of utilizable water on the one hand while it has to bear the brunt of floods on the other. Out of the 4 regions, Pondicherry, Karaikal and Yanam are worst affected by floods. Mahe is comparatively less affected. Pondicherry region being a flat terrain, there are no storage reservoirs in the region which would otherwise serve as flood moderators. There is a ridge of high land running along the northern and northwestern fringe of the urban area of Pondicherry with average elevation of 35.40m above MSL which brings flash floods during high intensity rains through the ravines emanating from these high lands. These flash floods submerges the entire urban and sub urban residential areas over a radius of 6.50 Km.

In the rural areas, raise of flood levels in the rivers, overflowing minor irrigation tanks, canals and drains cause inundation of vast area of agricultural lands in addition to disrupting traffic thorough fares. It has been identified that out of 172 Km long rivers and 1031 Km long canals in Union Territory of Pondicherry, 20% of the length is found to be weak against floods requiring strengthening/standardization. During the Ninth Plan 38 Sq.Km of lands were protected by flood control measures out of the total vulnerable area of over 100 Sq.Km. Tail end regulators were constructed in 3 rivers in River Nandalar, Thirumalairajanar and Arasalar in Karaikal. One more tail end regulator is being constructed at the estuarine reach of river Arasalar. During Tenth Plan 4000 Ha (40 Sq.Km) are proposed to be protected from floods and sea erosion.

OUTLAY AT A GLANCE

Sector : FLOOD CONTROL
Department : PUBLIC WORKS

No. of Schemes: 4

(Rs. in lakh)

Ninth Five Year Plan 1997-02 Approved Outlay	:	2150.00
Annual Plan 1997-2000 Actual Expenditure	:	1392.31
Annual Plan 2000-01 Actual Expenditure	:	544.39
Annual Plan 2001-02 Approved Outlay	:	588.50
Annual Plan 2001-02 Revised Outlay	:	588.50
Tenth Five Year Plan 2002-07 Proposed Outlay	:	3600.00
Annual Plan 2002-03 Proposed Outlay	:	700.00

(Rs. in lakh)

Sl. No.	Name of Scheme	2000-01	2001-02		2002-07	2002-03
		Actual Expenditure	Approved Outlay	Revised Outlay	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Drainage Scheme	171.93	87.00	87.00	1000.00	175.00
2.	Embankment Scheme	230.01	291.00	291.00	1450.00	300.00
3.	Improvements to Drainage Channel	142.45	210.00	210.00	1145.00	224.50
4.	Study on Sea-Wave Dynamics In Pondicherry	--	0.50	0.50	5.00	0.50
Total		544.39	588.50	588.50	3600.00	700.00

Sector : FLOOD CONTROL

Implementing
Department : PUBLIC WORKS

1. Name of the Scheme : Drainage Scheme.

2. Objective of the Scheme :

The scheme is mainly for improvements to various surface drainage carriers by way of Lining the existing canals, construction of ‘U’ drains and cross masonry structure. Also this scheme intended for drains at the storm water during rainy season to avoid inundation. Further, most of the urban drainage channels have to be protected with lining from off takes point to in fall point. Most of the Ayacut Tanks have been converted into residential areas. These drainage have to be properly protected and strengthened to avoid submerge of the residential areas. Also, construction of rural and urban drainage and construction of culverts.

(Rs. in lakh)

3. Ninth Plan 1997-02 :

a) 1997 – 2000 (Actual expenditure)	: 457.80
b) 2000 – 2001 (Actual expenditure)	: 171.93
c) 2001 – 2002 (Revised Outlay)	: 87.00

d) Actual Physical Achievement (1997 – 2000) :

- i) Improvements to Veeman Nagar odai from Mettu street to Gorimedu in Thelashpet (length 750 m).
- ii) Reconstruction of Anitha Nagar drain running on the South of AFT Mill road (length 1430 m).
- iii) Construction of masonry drain in Sathamangalam village (length 1450 m).
- iv) Construction of masonry drain from Sathyasai Nagar to Pudu Nagar at Reddiarpalayam (length 900 m).
- v) Improvements to Shanmugapuram drain upto Bharathipuram (length 750m).
- vi) Construction of culvert across NH 45A near Housing board and extension of link drain.
- vii) Formation of cement concrete lining road at Shanmugapuram (length 1,000m).
- viii) Construction of Mettupalayam drain (length 1210 m).
- ix) Standardisation of inspection path on the bank of Grand canal.
- x) Construction Of link drain with culvert for Oulgaret Mettuvoikal and south of NH 45A in Pondicherry.
- xi) Construction Of masonry drain with two culvert in Pallavaikal between ECR culvert and point care road in Pondicherry.

- xii) Improvements to Chekilian channel in Nedungadu and Nanavoikal and strengthening the bank of Mullaiyar at Karaikal.
- xiii) Construction Of masonry drain with two culvert in Pallavaikal between ECR culvert and point care road in Pondicherry.

e) Actual Physical Achievement (2000 – 01) :

- i) Improvements to Veeman Nagar odai from Mettu street to Gorimedu in
- ii) Thelashpet (length 750 m).
- iii) Reconstruction of Anitha Nagar drain running on the South of AFT Mill road (length 1430 m).
- iv) Construction of masonry drain in Sathamangalam village (length 1450 m).
- v) Construction of masonry drain from Sathyasai Nagar to Pudu Nagar at Reddiarpalayam (length 900 m).
- vi) Construction of masonry drain in pallavoikal between east coast road culvert and point care road culvert
- vii) Improvements to Shanmugapuram drain upto Bharathipuram (length 750m).
- viii) Construction of culvert across NH 45A near Housing board and extension of link drain.
- ix) Formation of cement concrete lining road at Shanmugapuram (length 1,000m).
- x) Construction of Mettupalayam drain (length 1210 m) (Rs.45,00,000/-)
- xi) Removal of shoal and formation of reservoir in river Arasalar from Agalancannu bed dam in Karaikal and the shoal filling up the land acquired for the stadium at Keezhaveli village, Karaikal.(160 Ha.)
- xii) Improvements to the Veeman Nagar odai behind Dhanvanthri nagar Police station from proposed cement road to Police ground, Pondicherry.
- xiii) Construction of masonry drain with two culverts in Pallavaikal between ECR culvert, Pondicherry.
- xiv) Improvements to Shanmugam ravine from chainage 0 mts. To 740 mts. Upto Bharathipuram culvert.
- xv) Construction of culvert across NH 45-A near Housing board at only and extension of link drain in lieu of RCC hume pipe at Northern side of NH 45-A, Pondicherry.

f) Anticipated Physical Achievement (2001 – 02) :

- i) Urgent repair to the existing revetment in Subbaiah Nagar voikal, Pondicherry.
- ii) Protection work to the Kanaganeri voikal in Pavazhakaranchavady, Pondicherry.
- iii) Protection repairs to the existing revetment to the Iyyanarkoil voikal, Pondicherry.
- iv) Protection to the Pallavoikal near new R.T.O. office in Pondicherry.
- v) Protecting the RB of Arasalar near Melaoduthurai graveyard in Karaikal.
- vi) Providing common bank and shuttering arrangements at Pathakudy channel and Valathamangalam, Karaikal.

- vii) Construction of masonry drain with two culvert in Pallavoikal between ECR culvert and Pointcare road culvert, Pondicherry.
- viii) Improvements to Shanmugapuram ravine from chainage 0 mt. To 740 mts. Upto Bharathi Nagar culvert, Pondicherry.
- ix) Improvements to Veema nagar odai behind Danvanthri Nagar odai behind Danvanthri Nagar Police Station from the proposed concrete road to the Police ground, Pondicherry.
- x) Construction of masonry drain in Sathamangalam village at Villianur Commune, Pondicherry.
- xi) Improvements to Mozhiankulam drainage channel at Pooranankuppam village, Pondicherry.
- xii) Repairs to the Veeman Nagar oadai from Mettu street to Gorimedu junction in Pondicherry.

4. Proposed Outlay for the Tenth Plan 2002 – 07	:	1000.00
Proposed Outlay for the Annual Plan 2002 – 03	:	175.00

5. Programme envisaged for the Tenth Plan (2002-07) :

Undertaking works like strengthening and lining of drains, improvements to channels, construction of retaining wall, foot bridge, regulators, reconstruction of syphons, dumping of boulders etc.

6. Programme envisaged for the Annual Plan (2002-03) :

Strengthening and Lining of the following drains:

- i) Kurusukuppam drain 2025 m
- ii) Mettu Voikal 10380 m
- iii) Pallavoikar 10500 m
- iv) Gorimedu drain 2400 m
- v) Strengthening and Cleaning of Uppar drain 2900 m
- vi) Standardisation of karpattam voikal at Mahalangudy village in Nedungadu Commune, Karaikal.
- vii) Lining and improvements to Chozhanodai channel from H/S to syphon in Pillaitheruvasal in Nedungadu Commune, Karaikal.
- viii) Lining and improvements to Puthakudy drainage channel at Puthakudy village from off take point to in fall point in Nedungadu, Karaikal.
- ix) Construction of common retaining wall at Ammai voikal at Neivacherry in Thirunallar, Karaikal.
- x) Construction of regulator across pannai voikal at Agalancannu, Karaikal.
- xi) Construction of foot bridge across Noolar river near Patchoor village, Karaikal.
- xii) Construction of foot bridge across Nelivoikal in Sorakudy village, Karaikal.
- xiii) Reconstruction of syphon in Pandaravadai channel, Karaikal.
- xiv) Improvements to 9 vents regulator in D/S of apron across Nandalar near

- Andoor village, Karaikal.
- xv) Standardisation of left out portion of Agaram channel in Nedungadu Commune, Karaikal.
 - xvi) Providing launching apron and revetment to RB of Nandalar in reaches in Nedungadu Commune, Karaikal.
 - xvii) Providing launching apron and revetment to the LB of river Vanjiar in reaches in Nedungadu Commune, Karaikal.
 - xviii) Forming of drainage channel from Keezhaiyar TER to D/S of TER Nandalar in Nedungadu Commune, Karaikal.
 - xix) Deepening of drainage channel below Kilianoor syphon in Nedungadu Commune, Karaikal.
 - xx) Improvements to the RB of Arasalar below Nagore road bridge III reach, Karaikal.
 - xxi) Dumping of boulders in the downstream side of solid apron at tail end regulator across Thirumalairajanar in Karaikal.
 - xxii) Removal of shoal in river Thirumalairajanar below Manapet regulator at various places, Karaikal.
 - xxiii) Construction of across regulator across Pannai voikal near in fall point into Ammai voikal in Agalancannu village, Karaikal.
 - xxiv) Standardisation of Ammai voikal from chainage 4610 m to 4950 m in Karaikal including providing drainage channel, Karaikal.
 - xxv) Providing and raising the LB of Arasalar near Puduthurai village in Karaikal.
 - xxvi) Improvements to Nallazhundur channel from offtake point to Peralam road culvert, Karaikal.
 - xxvii) Standardisation of both banks of Pannai voikal from offtake point to Madur road culvert, Karaikal.
 - xxviii) Standardisation of Kalladi voikal in Sellur village, Karaikal.
 - xxix) Improvements to Servari channel from H/S to Ambagarathur road culvert and straightcut of the downstream, Karaikal.
 - xxx) Improvements to existing inspection track and LB of Noolar from Sethur road bridge to Valathamangalm road culvert, Karaikal.
 - xxxi) Improvements to existing inspection track from Nallambal regulator to Madhur channel offtake point, Karaikal.
 - xxxii) Protecting the both banks of Nallazhundur channel from Pathakudy road culvert to Sorakudy road culvert in reaches, Karaikal.
 - xxxiii) Improvements to Ethanoor voikal in Subbarayapuram village in Karaikal (0m to 300 m).
 - xxxiv) Improvements to improvement drainage channel from Kamaraj salai to beach road, Karaikal.

7. Remarks : Continuing scheme.

Sector : FLOOD CONTROL

Implementing

Department : PUBLIC WORKS

1. Name of the Scheme : Embankment Scheme

2. Objective of the Scheme :

This scheme is mainly intended for protection of river banks and channel banks to avoid flood erosion and to protect the fields from inundation, formation of flood embanks to prevent submission of neighbouring lands, protection of existing embanks by providing revetment/retaining walls.

(Rs. in lakh)

3. Ninth Plan 1997-02 :

a) 1997 – 2000 (Actual expenditure) : 615.53

b) 2000 – 2001 (Actual expenditure) : 230.01

c) 2001 – 2002 (Revised Outlay) : 291.00

d) Actual Physical Achievement (1997 – 2000) :

- i) Lining of Kuttiankuppam chl. for a length of 600m.
- ii) Protecting eroded RB of Sankaraparani river for the length of 300m .
- iii) Protecting to vulnerable portion of Ariankuppam river bund the length of 300m.
- iv) The drainage channel in Saradambal Nagar for a length of 75 mts. is provided with masonry drain to protect Rathina Nagar, Saradambal Nagar and Periyar Nagar, Pondicherry.
- v) Inspection track on left bank of Thirumalairajanar, Karaikal.
- vi) Improvements to right bank Arasalar, Karaikal.
- vii) Protecting the banks of Neravy channel and banks of Kankeyan channel at Karaikal.

e) Actual Physical Achievement (2000 – 01) :

- i) Protecting the left bank of Muttrampet tank feeding channel, Pondicherry.
- ii) Improvements to the road leading to the Sornavur anicut, Kuttiankuppam channel and balance work of Thuthipet tank, Pondicherry.
- iii) Deepening and strengthening the bunds of Pallavoikal in Pitchaveerampet, Pondicherry.
- iv) Construction of masonry drain in Kanaganeri, Pondicherry.
- v) Protecting the left bank of Malatar, Pondicherry.

- vi) Construction of protection wall in left bank of Gorimedu drain, Pondicherry.
- vii) Strengthening the scored portion of Murungapakkam tank, Pondicherry.
- viii) Raising of existing shore protection wall at Vambakeerapalayam from ch.475 to 915 m from New Tower (south).
- ix) Providing BT to the LB of Thirumalairajanar below Nagore road bridge in Karaikal. (70 Ha.)
- x) Standardising of banks and inspection track of grand canal from Rayampalayam BT road in Perumal Koil regulator III reach, Karaikal. (70 Ha.)
- xi) Standardising of banks of Sadayan channel from offtake point to in fall point in Nandalar river from Nallathur road to Kottogam H/S, Karaikal.
- xii) Improvements to Nelli voikal from offtake point to in fall point in reaches II reach, Karaikal.
- xiii) Improvements to the left bank of Vanjiar from confluence of Arasalar river upto Lemarie bridge at Karaikal.
- xiv) Metaling and black topping the new beach road, Mahe.
- xv) Construction of protection wall for West bank of channel near Govt. Servants quarters, Mahe.
- xvi) Protection work to south bank of Kohinoor footpath, Mahe.
- xvii) Protection work for embankment of Chalakkara channel at tail end near Thoonoli Industries, Mahe.
- xviii) Providing a ring bund around new colony of Rajiv nagar in Yanam. (1650 mts.)
- xix) Extension of ring bund from old Rajiv Nagar to flagmast in Yanam (380 mts.).
- xx) Protecting the Godavari river margin in Adivipolam area from 5/720 km. to 6/770 km (III reach), Yanam.
- xxi) Protecting the earthen ring bund around the Savithri Nagar in Yanam.
- xxii) Protecting the Godavari river margin from Ferry point to in fall point in Goringa river at Yanam.
- xxiii) Protecting the Godavari river margin from Artikayalanka to Ferry Point at most vulnerable points (chainage 610 to 1180 mts.), Yanam.

f) Anticipated Physical Achievement (2001 – 02) :

- i) Consultancy charges for construction of barrage with 2 lane bridge.
- ii) Protecting the eroded RB and LB of Sankaraparani river below Sellipet causeway upto confluence point of Perambai river, Pondicherry.
- iii) Construction of cement concrete lining road in the ravine (Vellavari) at Shanmugapuram southern Bharathipuram upto Vazhudavur road in Pondicherry.
- iv) Formation and construction of side drain and road in the Shanmugapuram Vellavari from Vazhudavur road to Kanaganeri mouth in Pondicherry.
- v) Construction of protecting side wall at Mettupalayam voikal from Sanarapet to in fall point at Shanmugapuram vellavari, Pondicherry.
- vi) Strengthening the LB of Bangaru channel chainage 3556 m to 3736 m., Pondicherry.

- vii) Construction of protecting wall on RB of Karuvadikuppam from Venus theatre to Ambika theatre culvert, Pondicherry.
- viii) Improvements to Bangaru channel from Chinna Karayambuthur bridge to Perichampakkam bridge and revetment in Karupatti channel, Pondicherry.
- ix) Providing revetment to the Kodathur feeding channel from offtake point of Vikkaravandi main channel upto pipe culvert @ 260m., Pondicherry.
- x) Protection work to the feeding channel of pallavoikal near Ansari Duraisamy Nagar, Pondicherry.
- xi) Protection work to the Velrampet voikal in Pondicherry.
- xii) Forming inspection track RB of Thirumalairajanar river below Nagore road bridge in Karaikal (30 Ha.)
- xiii) Improvements and providing BT to the inspection track on the RB of Mullaiyar from Melaoduthurai to Nagore road bridge, Karaikal (40 Ha.)
- xiv) Construction of H/S cum culvert across Panadaravadai voikal at Kumarakudy (75 Ha.), Karaikal.
- xv) Construction of barrage against saline water intrusion near Aravilagath palam, Mahe.
- xvi) Improvements to Grand canal at discharge point and construction of link bridge, Mahe.
- xvii) Protection work for embankment of channel along Palloor vayal, Mahe.
- xviii) Cleaning the mouth of Grand canal, Mahe.
- xix) Protecting the ear tern bund around Gurempeta village at Yanam 1950 mts.
- xx) Providing protecting drainage course from tidal lock point to Rice Mill point in Yanam (375sqm.)
- xxi) Providing revetment to the flood bank of Coringa river from Yanam old age home to Lord Sivalayam temple in Yanam (300 mts.)
- xxii) Construction of culvert and revetment for the drainage channel near Poleramma temple in Yanam (110 mts.)
- xxiii) Construction Of culverts across Anitha Nagar drain in between point care street and Cuddalore road, Pondicherry.
- xxiv) Improvements to T.R.Pattinam channel to reaches in Karaikal.
- xxv) Inspection paths to Vanjiar river to Ambagarathur Hospital road to state border in Thirunallar, Karaikal.
- xxvi) Improvements to Calingula surplus course from Manapet Thangal upto Mullodai in Bahour commune, Pondicherry.
- xxvii) Providing revetment in Mettuvoikal from N.H crossing culvert upto Pon Nagar in Pondicherry.
- xxviii) Improvements to tank channel from confluence point of Uppar and Grand canal upto in fall point Pondicherry.
- xxix) Raising the shore protection wall at Vambakeerapalayam from ch.300 m to 475m from New Tower towards south in Pondicherry.
- xxx) Emergency protection of Le-café Restaurant buildings by providing rock revetment along the sea margin near Gandhi statue at Pondicherry.

4.	Proposed Outlay for the Tenth Plan 2002 – 07	:	1450.00
	Proposed Outlay for the Annual Plan 2002 – 03	:	300.00

5. Programme envisaged for the Tenth Plan (2002-07) :

Strengthening of revetments in the old and new pier, Construction of bed dams, tail end regulators, barrages, check dams and foot bridges protection of river banks , retaining walls etc.

6. Programme envisaged for the Annual Plan (2002-03) :

- i) Construction of barrage with two lane bridge across Sankaraparani river near Uruvaiyar (9 crore).
- ii) Protection work to the weaker portion of Sankaraparani river.
- iii) Construction of 2 bed dam across Sankaraparani river (1.33 crores)
- iv) Improvements of Suthukeny anaicut and Pillaiyarkuppam anaicut.
- v) Construction of check dam across Pambaiyar river.
- vi) Construction of check dam across Guduvaiyar river, Pondicherry.
- vii) Strengthening of bunds and desilting of Malatar and Guduvaiyar, Pondicherry.
- viii) Construction of tail end regulator across Nana voikal and protecting the left out portion of Nana voikal in Kottucherry Commune, Karaikal.
- ix) Improvements to Iyanar koil channel from Uccadai channel to Vathian channel to 0 to 1000 m., Karaikal.
- x) Standardisation of flood banks of river Nandalar RB frm Keezhaiur H/S to Porayar road in Kottucherry Commune, Karaikal.
- xi) Improvements to Thalatheru channel from Keezhatheru to regulator in Karaikal.
- xii) Standardisation of Karukathi channel from offtake point to in fall point in Kottucherry commune in Karaikal.
- xiii) Standardisation of banks of Kiliyanoor channel from offtake point to in fall point in Nedungadu commune in Karaikal.
- xiv) Protecting ande strengthening the LB of Thirumalairajanar below Nagore road bridge in Karaikal.
- xv) Protecting the RB of Arasalar at Agalancannu above reservoir in Vizhidiyur village II reach, Karaikal.
- xvi) Improvements to the Mullaiyar river LB & RB above Melaoduthurai bridge I reach, Karaikal.
- xvii) Improvements to the inspection track lead from Nagore Road to Pattinacherry in RB of Thirumalairajanar river in T.R.Pattinam, I Reach, Karaikal.
- xviii) Improvements to the LB of Pravadayanar river below Nagore road bridge I reach, Karaikal.
- xix) Improvements to the RB of Pravadayanar river below Nagore road bridge I reach, Karaikal.
- xx) Improvements to the LB of Pravadayanar river above regulaore I reach, Karaikal.
- xxi) Protecting the LB of Pattinam channel in various places below Ananthanallur regulator I reach, Karaikal.

- xxii) Providing and strengthening the banks of Noolar from Thenoor road culvert to Poomulayanmangalam regulator in Thirunallar, Karaikal.
- xxiii) Improvements to lining Poomulayanmangalam channel from Nalankulam to Ambagarathur road in Thirunallar, Karaikal.
- xxiv) Construction of foot bridge across Nellivoikal in Karaikal.
- xxv) Protecting the both banks of Noolar from Keezhaveli Puthamangalam regulator to Subrayapuram road culvert in Thirunallar, Karaikal.
- xxvi) Protecting the LB of Vanjiar from Kalayankattai bridge to Lemaire bridge in reaches, Karaikal.
- xxvii) Protecting the LB of vanjiar from railway culvert to Kalayankatti bridge in Karaikal.
- xxviii) Protecting and strengthening the banks of Noolar from Thenoor road culvert to Puthamangalam regulator in Thirunallar, Karaikal.
- xxix) Protecting and strengthening the both banks of Noolar (left out portion) from Nallambal regulator to Sethur road bridge in Thirunallar, Karaikal.
- xxx) Forming inspection track in RB of Vanjiar from Lemaire bridge to confluence of Arasalar in Karaikal.
- xxxi) Construction of retaining wall and drainage facility at the LB of Vanjiar from Lemaire bridge confluence point, Karaikal.
- xxxii) Construction of foot bridge across river Vanjiar near Meerapallithottam in Karaikal.
- xxxiii) Improvements to Poomulaiyanmangalam channel, Karaikal.
- xxxiv) Standardisation of banks of Sadayan channel from offtake to in fall point in Nandalar from Nallathur road to Kottapakkam village in Karaikal.
- xxxv) Standardisation of banks and launching apron RB of Nandalar from Kulakudy to Uspur road village in Nedungadu commune, Karaikal.
- xxxvi) Protecting the coastal bund at various places in Karaikal.
- xxxvii) Improvements to the launching apron in US and D/S of Nandalar at Nallathur regulator in Nedungadu commune in Karaikal.
- xxxviii) Improvements to launching apron in U/S & D/S of Nandalar at 9 vents regulator at Karaikal.
- xxxix) Removal of shoal and formation of bund in the RB of Thirumalairajanar river below Nagore road bridge in Karaikal.
- xl) Improvements to the apron & upstream side & D/S side in Manampet regulator, Karaikal.
- xli) Improvements to inspection track leading to the Ananthanallur regulator and protecting the RB of Pattinam channel in Karaikal.
- xlii) Protecting the LB of Thirumalairajanar from Kavundatheru to Alathur iron bridge I reach, Karaikal.
- xliii) Removal of shoal and protecting the banks of RB of Thirumalairajanar above vannan vadigal to Anandanallur regulator, Karaikal.
- xliv) Improvements to Elayankudy pai voikal in Thirunallar commune, Karaikal.
- xlv) Protecting eroded portion in RB of Noolar at Karukkankudy village, Karaikal.
- xlvi) Protecting and strengthening the banks of Nallambal channel from Off take point to in fall point, Karaikal.
- xlvii) Protecting the left out portion in RB and LB of Noolar from

- Valathamngalam road culvert to Karukkankudy regulator, Karaikal.
- xlvi) Protecting the LB of river Arasalar below Pettai bridge in Thirunallar commune, Karaikal.
 - xlix) Protecting the both banks of Subbarayapuram escape channel above and below Sembiampalayam regulator, Karaikal (left out portion).
 - l) Improvements to Nelli voikal from off-take point to in fall point in reaches in Karaikal region II reach from Ambagarathur road to Pettai regulator, Karaikal.
 - li) Protecting and strengthening the banks of Pandaravadai channel in Thirunallar commune, Karaikal.
 - lii) Formation of inspection tracks in the LB of Nelli voikal from Karukkankudy arch to Pettai regulator, Karaikal.
 - liii) Formation of inspection tracks in the RB of Noolar from Sethur road culvert to Avvaiyar moolai.
 - liv) Improvements to discharge point of grand canal, Mahe.
 - lv) Protection work to embankment of channel along Palloor vayal, Mahe.
 - lvi) Protection work to Pandakkal-Poduvacherry and Ponniyam channels, Mahe.
 - lvii) Protecting the Godavari river margin from Artikayalanka to Groyne at +1500 mts. at Francethippa in Yanam (1000 mts.)
 - lviii) Protecting the Godavari river margin in Adivipolam area Yanam from 6.770 km to 7.90 km(IV reach)(1130 mts.)
 - lix) Protecting the Godavari river margin at Francethippa from Iskalava towards Adivipolam upto 4/55 km in Yanam (1000 mts.)
 - lx) Providing revetment to the inner side of Savithri Nagar ring bund in Yanam (1030 mts.)
 - lxi) Strengthening the existing rock revetment in the vulnerable stretch at south of New pier from ch.0 mts. to 150 mts. of sea coast in Pondicherry.
 - lxii) Strengthening of banks Malatar river below Kumaramangalam regulator upto Cuddalore road including the improvements to the existing command bund of Malatar river kand Authuvoikal in T.N.Palayam.

7. Remarks : Continuing scheme.

The existing two plan schemes 'Anti-Sea erosion works' and 'Bank Protection' are merged under this scheme.

Scheme No. 3

Sector : FLOOD CONTROL
 Implementing Department : PUBLIC WORKS

1. Name of the Scheme : Improvement to drainage channels

2. Objective of the Scheme :

Deepening, levelling, lining of channels for effective and quick draining of flood to safeguard the standing crops.

(Rs. in lakh)

3. Ninth Plan 1997-02 :

a) 1997 – 2000 (Actual expenditure)	:	308.00
b) 2000 – 2001 (Actual expenditure)	:	142.45
c) 2001 – 2002 (Revised Outlay)	:	210.00

d) Actual Physical Achievement (1997 – 2000) :

Providing inspection bank on the left bank of Thirumalairajanar below Nagore road bridge. Protecting the common bank of Neravy channel and Thirumalairajanar near Iron Bridge. Left bank and right bank of Kangeyan channel III reach. Standardisation of banks of Sadayan channel off-take point to in fall point Nandalar river I reach and banks of river Nattar from entry point to Keeshavely regulator in Karaikal.

e) Actual Physical Achievement (2000 – 01) :

- i) Resectioning and regrading the Maducarai drainage channel in Pondicherry.
- ii) Improvements to Nallezhundur drainage channel from bed dam at chainage 2350 m to Pathakudy road culvert at chainage 5150 m in Thirunallar, Karaikal.
- iii) Improvements to Elayankudy channel from offtake point to in fall point ilayankudy village II reach left side 1900 mts. in Karaikal.
- iv) Improvements to Agaram channel in Melakasakudy village in Nedungadu Commune, Karaikal.
- v) Reconstruction of Nana voikal syphon across North Thalaganiar in Kottucherry Commune, Karaikal.
- vi) Lining and Improvements to Keezhakasakudy channel I reach (from offtake point to internal road culvert Keeshakasakudy), Karaikal.
- vii) Construction of tail end regulator across river Arasalar near Melaoduthurai village in Karaikal.

f) Anticipated Physical Achievement (2001 – 02) :

- i) Construction of culvert across Anitha Nagar drain inbetween Point care street and Cuddalore road in Pondicherry.
- ii) Improvements to Calingula surplus course from Manapet thangal upto

- Mullodai in Bahour Commune in Pondicherry.
- iii) Providing revetment in Mettuvoikal from NH crossing culvert upto Pon Nagar in Pondicherry.
- iv) Improvements to link channel from confluence point of Uppar and Grand canal upto in fall point Pondicherry.
- v) Removal of shoal and strengthening the banks of Arasalar river between Agalancannu barrage and Pettai road bridge in Karaikal.
- vi) Protecting the banks of Neravy channel at various places in Neravy Commune Phase-I, Oduthurai channel offtake to Kakamozhi channel offtake, Karaikal.
- vii) Arasalar river bank strengthening from Athipadugai to Agalancannu bed dam, Karaikal.
- viii) Construction of culvert across Kuthirakutti channel at Adaikalapuram village in Nedungadu Commune, Karaikal.
- ix) Improvements to Sadayan channel (II reach) from Nallathur road to Kottapakkam village in Nedungadu Commune, Karaikal.
- x) Construction of bed dam at Veerazholanar on the D/S side of Govindakalagam surplus in Tamil Nadu.

4. Proposed Outlay for the Tenth Plan 2002 – 07 : 1145.00
Proposed Outlay for the Annual Plan 2002 – 03 : 224.50

5. Programme envisaged for the Tenth Plan (2002-07) :

Construction of culverts, resectioning and regrading of various drainage channels.

6. Programme envisaged for the Annual Plan (2002-03) :

- i) Construction of culvert across Anitha Nagar drain inbetween Point care street and Cuddalore road in Pondicherry.
- ii) Improvements to Calingula surplus course from Manapet thangal upto Mullodai in Bahour Commune in Pondicherry.
- iii) Providing revetment in Mettuvoikal from NH crossing culvert upto pon Nagar in Pondicherry.
- iv) Improvements to link channel from confluence point of Uppar and Grand canal upto in fall point Pondicherry.
- v) Improvements to Mullodai drainage channel from Cuddalore road to tail end regulator in Pondicherry.
- vi) Resectioning and regrading river Guduvaiyar from Kizhur anicut to Uruvaiyar road culvert in Pondicherry.
- vii) Improvements to Nettapakkam drainge channel in Pondicherry.
- viii) Improvements to Vinayampet Odai in Pondicherry.
- ix) Deepening and strengthening of Improvements channel from offtake point to Karialmedu in Karaikal.
- x) Construction Of culvert across Kuthiraikutti channel in Adaikalapuram

- village in Nedungadu, Karaikal.
- xi) Improvements to Arasapuram channel in left out portion in Karaikal.
 - xii) Construction Of H/s Kandiyamadai in Nallathur village in Nedungadu.
 - xiii) Construction Of H/s at Korakattu channel at Mathalangudy village in Nedungadu commune.
 - xiv) Improvements to inspection track from F.R. to Nattar causeway near Mukkuttu regulator.
 - xv) Improvements to Koilpathu channel.
 - xvi) Reconstruction of culvert across river Nattar at various places.
 - xvii) Construction Of tail end regulator in river Vanjiar near confluence point river Noolar, Karaikal.
 - xviii) Improvements to Pattavarthi channel in Neravy commune, Karaikal.
 - xix) Improvements to the leading channel in lift irrigation at Vanjiur, Karaikal.
 - xx) Improvements to the Oduthurai channel from Thoothuponamoolai road culvert to Keezhamanai road culvert I & II reaches, Karaikal.
 - xxi) Improvements to the Mudalimedu voikal in TR.Pattinam, I & II reach at Karaikal.
 - xxii) Providing and Armour of layer stone in the downstream side of bed dam at Agalancannu across in river Arasalar in Karaikal.
 - xxiii) Improvements to Ambagarathur channel from Pasic borewell to Peralam road culvert, Karaikal.
 - xxiv) Improvements to Ambagarathur channel from Peralam road culver to in fall point, Karaikal.
 - xxv) Improvements to Elayankudy channel in Thennangudy village, Karaikal.
 - xxvi) Improvements to the approach road to the Nallambal regulator to Ambagarathur road in Thirunallar, Karaikal.
 - xxvii) Improvements to Ambagarathur channel form H/S to main road culvert in reach, Karaikal.
 - xxviii) Protecting the banks of Nallambal channel from oftak point to in fall point in Thirunallar Commune, Karaikal.
 - xxix) Protecting the both banks of Madhur channel in Thirunallar Commune, Karaikal.
 - xxx) Improvements to Serumavilangai vadigal in Thirunallar Commune, Karaikal.
 - xxxi) Restoration of the flood damage of Nana voikal III reach from Porayar R/C in Thiruvettakudy R/C in Karaikal.
 - xxxii) Standardisation of banks of river Nattar from Keezhaponbethy foot bridge in Mukkuttu regulator in Nedungadu Commune in reaches II reach from Keezhaponbethy foot bridge to Puthakudy, Karaikal.
 - xxxiii) Standardisation of banks of river Nattar from Keezhaponbethy foot bridge to Mukkuttu regulator in Nedungadu Commune in reaches III reach from Puthakudy bridge to Mukkuttu regulator, Karaikal.
 - xxxiv) Standardisation of banks of Nattar from Mukkuttu to Thiruvettakudy regulator in Thiruvettakudy regulator in Kottucherry Commune, Karaikal.
 - xxxv) Improvements to the existing road in the LB of Vanjiar river from Lingathady regulator to Mukkuttu regulator in Nendungadu Commune,

- Karaikal.
- xxxvi) Improvements to Anaiyarangam channel at Agaramangudy village in reaches I reach from H/S to Surakudy road in Nedungadu Commune, Karaikal.
- xxxvii) Improvements to Anayarangam channel at Agaramangudy village in II reach from Surakudy road to Mahana vadigal in Nedungadu Commune, Karaikal.
- xxxviii) Improvements to Puthagaram channel in Nedungadu Commune, Karaikal.
- xxxix) Providing inspection track to the LB of Thirumalairajanar river from Kavundatheru to Sanniyasi vadigal, Karaikal.
- xl) Improvements and providing BT to the inspection track on the RB of Mullaiyar river from Melaoduthurai road bridge to Nagore road bridge, Karaikal.
- xli) Protecting the banks at various places in Neravy channel Karaikal (space-1) Oduthurai channel offtake to Kakomozhi channel, Karaikal.
- xlii) Standardisation of Narithinna voikal drainage channel in Neravy Commune, Karaikal.
- xliii) Improvements to Vadakattalai channel from offtake point to Nagore road in Karaikal.
- xliv) Removal of shoal and strengthening the banks of river Arasalar between Agalancannu bridge and Pettai road bridge in Karaikal.
- xlv) Improvements to the shuttering arrangements to the existing Manampet regulator, Karaikal.
- xlvi) Desilting of various channels in Neravy and T.R. Pattinam, Karaikal.
- xlvii) Construction Of section office at LB of Nellivoikal near Karukkangudy arch in Thirunallar Commune, Karaikal.
- xlviii) Forming of lift irrigation system near LB of river Arasalar in Pettai village in Thirunallar, Karaikal.
- xlix) Lining work to Madhur channel in reaches, Karaikal.
- l) Protecting the banks of Pandaravadai channel from offtake point to Madur road culvert, Karaikal.
- li) Improvements to Nelli voikal from Peralam road culvert to Pettai regaulator in Thiunallar, Karaikal.
- lii) Protecting the LB of Arasalar below Nagore road bridge to sea by dumping jeddy stone in reaches II and III , Karaikal.
- liii) Protecting the strengthening the banks of Noolar from Sayampalayam regulator to in fall point of Vanjiar, Karaikal.
- liv) Improvements to Melaveli voikal from H/S to in fall point in Thirunallar, Karaikal.
- lv) Improvements to Pathakudy paikal voikal in Thirunallar, Keeshaveli voikal, Vadakuveli channel and Puduthurai channel, Karaikal.
- lvi) Lining and improvements to Olakudiyan voikal in Thirunallar, Karaikal.
- lvii) Inspts. To Pannai voikal from Madur road culvert to in fall point to Agalancannu, Karaikal.
- lviii) Construction Of foot bridge across Noolar near Nalankulam North street in Thirunallar, Karaikal.
- lix) Inspection path to Vanjiar river from Ambagarathur Hospital road to

- State Border in Karaikal.
- lx) Desilting of various channels in Karaikal.
- lxi) Resectioning and regarding the Mullaodai drainage system from Keelparikalpet surplus upto tail end regulator at Murthykuppam including construction of pipe culverts and establishment of min lake at tail end portion.
- lxii) Construction of causeway across Bahour surplus just below Muttrampet regulator connecting Sellimedu and T.N. Palayam.

7. Remarks : Continuing scheme.

Scheme No. 4

Sector : FLOOD CONTROL
 Implementing Department : PUBLIC WORKS

- 1. Name of the Scheme** : Study on Sea wave dynamics in Pondicherry.
- 2. Objective of the Scheme** : To study the dynamics of Sea Waves.

(Rs. in lakh)

- 3. Ninth Plan 1997 – 02** : --
- a) **1997 – 2000 (Actual expenditure)** : 0.98
- b) **2000 – 2001 (Actual expenditure)** : --
- c) **2001 – 2002 (Revised Outlay)** : 0.50
- d) **Actual Physical Achievement (1997 – 2000)** : Study was conducted.
- e) **Actual Physical Achievement (2000 – 01)** : --
- f) **Anticipated Physical Achievement (2001 – 02):**

This Seashore on the urban area for a length of 5.5kms. is gradually getting eroded. It is proposed to conduct study on the dynamics sea wave to adopt adequate protection work along the Seashore.

- 4. Proposed Outlay for the Tenth Plan 2002 – 07** : 5.00
Proposed Outlay for the Annual Plan 2002 – 03 : 0.50

5. Programme envisaged for the Tenth Plan (2002-07) :

This Seashore on the urban area for a length of 5.5 kms. is gradually getting eroded. It is proposed to conduct study on the dynamics sea wave to adopt adequate protection work along the Seashore.

6. Programme envisaged for the Annual Plan (2002-03) :

This Seashore on the urban area for a length of 5.5kms. is gradually getting eroded. It is proposed to conduct study on the dynamics sea wave to adopt adequate protection work along the Sea-shore.

7. Remarks : Continuing scheme.