9.12 Irrigation, Command Area Development and Flood Control

Overview

Irrigation

Tamil Nadu with a geographical area of 130 L.ha. is ranked eleventh in size among the Indian States. The net area sown in Tamil Nadu is about 55 L.ha. of which about 30 L.ha. gets irrigation facility from canals, tanks, wells, tubewells and other sources. There are 65 Major and Medium reservoirs, 39,202 tanks, 12,611 km length of canals and 18,39,754 wells in the State.

According to the assessment of the Central Water Commission, the ultimate surface water potential in Tamil Nadu is 2.70 Mham. The potential created is 2.40 Mham, which works out to 89 percent. The ultimate ground water potential is assessed to be 3.35 Mham, the potential developed being about 2 Mham. Having almost exhausted the surface water potential, the only hope for any further irrigation development is in the use of this balance ground water potential and in conservation and optimisation of the water use.

Another important resource that can be tapped for further irrigation development in Tamil Nadu is the diversion of surplus waters from the west flowing rivers in Kerala State and the additional surplus waters that would be available by inter-linking the east flowing Peninsular rivers viz. Mahanadhi, Gothavari, Krishna, Pennar, Palar, Cauvery, Vaigai and Gundar through the trans-basin diversion of waters from surplus basin to deficit basins. Government of India has formulated schemes and worked out the feasibility of the Peninsular River Development components of the National Perspective Plan. The National Water Development Agency is entrusted with the task of investigation and preparation of the project proposals for the Peninsular River Links.

Command Area Development

The Command Area Development Programme (CADP) is implemented in the State by the Agricultural Engineering Department basically to ensure improved agricultural activities with efficient water management to enable easy and convenient distribution of water below the sluices to the farm holding in the river commands. This programme is a centrally sponsored one and the cost is shared equally on 50:50 basis between the State Government and the Government of India.

The Agricultural Engineering Department has been implementing the programme in Cauvery Command, Lower Bhavani Project, Parambikulam Aliyar Project, Amaravathy Reservoir Project, Kodaiyar Chittar Pattanamkai Project, Cumbum Valley Project, Periyar Vaigai Project, Sathanur Reservoir Project and Tambiraparani River Basin Project. The programme has been completed in Lower Bhavani Project, Cumbum Valley Project, Periyar Vaigai Project, Sathanur Reservoir Project and Amaravathy Reservoir Project. During the Ninth Five Year Plan period, the Government of India approved three new projects namely Krishnagiri Reservoir Project, Thoppaiyar Project and Palar Porandalar Project. The Command Area Development Programme
has three main elements, viz., On Farm Development, Rotational Water Supply and Farmers' Participation.

**Flood Control and Anti Sea Erosion**

Of the coast line of Tamil Nadu 960 K.M. in length of which 900 K.M faces the Bay of Bengal and remaining 60 K.M. faces the Arabian Sea, the coastal erosion has occurred in a few vulnerable reaches and adjoining lands used for various purposes including coastal road, historical monuments, houses, churches, mangroves etc., have been eroded and lost.

**Performance during the Ninth Five Year Plan**

As against the outlay of Rs. 785 crores for Major and Medium Irrigation, the expenditure incurred was Rs. 1366.49 crores. In respect of Minor Irrigation a sum of Rs. 243.17 crores was spent as against the outlay of Rs. 515 crores.

**Major and Medium Irrigation**

Based on the inspection report of Dam Safety Review Panel, works for ensuring safety and additional flood disposal facilities were taken up in 13 dams. The works were completed in 8 Dams and are in progress in 5 dams. An amount of Rs. 6 crores was spent. Under the Tamil Nadu Water Resources Consolidation Project (WRCP) Phase I, schemes were taken up for rehabilitation and modernization of 16 irrigation systems and 25 Minor Irrigation Schemes (except those in Cauvery Basin) and for completion of the nine on-going irrigation projects viz. Poigaiyar, Nambiyar, Sothuparai, Mordhana, Rajathopekanar, Kodumudiyar, Vadakupachayar, Adavinainarkoil and Gridhamal Schemes. Rehabilitation of 620 non system rainfed tanks were also taken up during the Plan period. The Government accorded administrative sanction for 2,347 packages for a total cost of Rs.1,062 crores. Among the nine projects, Poigaiyar, Sothuparai, Mordhana, Rajathopekanar and Gridhamal Athikulam anicut were completed during the Ninth Five Year Plan period. In respect of the remaining 4 projects the works are likely to be completed before March 2003. These irrigation projects have enhanced agricultural production in about 6 L.ha. (about 50% of the State's surface irrigated areas) directly benefitting 40 lakhs farmers. During the Ninth Five Year Plan period a sum of Rs. 796 crores was spent. Under the Participatory Irrigation Management programme, the Water Resources Organisation as well as the Agriculture Engineering Department, undertook the task of establishing the farmers organizations under the various programmes, viz., WRCP, CADP, EEC Programme, NABARD and others. During the Ninth Five Year Plan period, 1,750 Farmers Councils have been formed. A committee consisting of members from Agriculture Department, Revenue Department and Water Resources Organization was formed to monitor and take effective steps for periodical interaction. To integrate the activities of all Departments and maintain the sustainability of the water resources, River Basin Management and Development Boards were formed in two river basins. An amount of Rs. 1.61 crores was spent for this purpose. For creating awareness on detrimental effects of over exploitation of Ground water, a documentary film “Thanneer Desam” was produced and telecast in
Doordharsan. A handbook on rainwater harvesting was also published. Regarding sprinkler irrigation, bulletins were brought out. For the efficient management of irrigation system, Irrigation Management Training Institute, Trichy conducted a number of training programmes for the farmers, field staff and NGOs. An expenditure of Rs. 9.01 crores was incurred during the Plan period. The Nanganjiar Reservoir scheme for the formation of a reservoir across Nanganjiar, a tributary of river Amaravathy near Idayankottai village in Palani Taluk, Dindigul District to benefit 2,530 ha. of new ayacut and to stabilize 24 ha. of old ayacut in Idayankottai, Valayapatti and Chinakkamapatti village in Vedasandur Taluk of Dindigul District and Sendamangalam village of Karur Taluk of Karur District at an estimated (revised) cost of Rs. 37.35 crores is in progress. So far 80% of the work has been completed, the expenditure incurred being Rs. 33.91 crores. Remaining works are in progress. The Irukkangudi scheme was taken up for the formation of a reservoir across Vaippar near Irukkangudi village, Sattur Taluk, Virudhunagar District at a cost of Rs. 28.70 crores to stabilize irrigation in 254 ha. for bridging the gap in irrigation of 255 ha. and for giving new irrigation facilities to 3,705 ha. of dry lands in Vilathikulam Taluk of Thoothukudi District. So far 75% of the work has been completed. Remaining works are in progress. The expenditure incurred on the project was Rs. 19.60 crores.

**Minor Irrigation**

The World Bank Hydrology project is intended to improve the institutional and organizational arrangements, technical capabilities and infrastructure available for measurement, validation, collection, analysis, transfer and dissemination of hydrological, hydro meteorological and water quality data. A permanent modern hydrological data management system has been set up. Under surface water component (i) 112 gauging and gauging discharge stations have been completed, (ii) 116 Automatic Water level recorders have been installed, (iii) 65 meteorological stations have been established, (iv) 15 numbers of Level I laboratories, 44 numbers of site equipment stores, 15 numbers of silt laboratory buildings have been completed, (v) buildings for 4 division offices, 12 sub division offices, 16 section offices have been completed and (vi) 25 vehicles have been procured. Under the Ground Water Component (i) 690 bore wells were drilled in hard rock regions, 162 bore wells drilled in the Alluvial soil areas, (ii) 645 Digital Water Level recorders were procured and 455 numbers have been installed, and (iii) 4 numbers of geo chemical laboratory buildings have been constructed. A sum of Rs. 37.67 crores had been spent during the Ninth Five Year Plan.

Under Ground Water Survey for monitoring the Ground Water condition of Tamil Nadu both, in respect of quality and quantity, multi-disciplinary studies were taken up during the Ninth Plan, viz., 1) monitoring the water level fluctuation in wells every month, 2) collection of water samples from observation wells and bore wells and surface water sources once in six months and conducting geo-chemical analysis for quality, 3) conducting hydrological observations in the selected watershed maintained by Ground Water Wing, 4) analysis of rainfall data collected from 400 rain gauge stations every month, 5) preparation of Geomorphological maps,
(1) Cauvery command - Rs. 47.12 crores (2) Parambikulam Aliyar Project - Rs. 22.22 crores (3) Lower Bhavani Project - Rs. 5.32 crores (4) Cumbum Valley Project - Rs. 1.11 crores (5) Periyar Vaigai Project - Rs. 0.18 crore (6) Amaravathy Reservoir Project - Rs. 7.22 crores (7) Kodaiyar Chittar Pattanamkal Project - Rs. 11.33 crores (8) Tambiraparani River Basin Project - Rs. 3.52 crores (9) Sathanur Reservoir Project - Rs. 0.15 crore (10) Technical cell at Head quarters - Rs. 0.56 crore.

Physical Performance

An area of 8.85 L.ha. has been covered out of total cultivable command area of 10.79 L.ha. with On Farm Development in 12 command areas and 7.17 L.ha. has been covered under Rotational Water Supply in nine Command areas.

The command wise physical targets and achievements in respect of construction of field channels and introduction of Warabandi undertaken by the Agricultural Engineering Department during the Ninth Five Year Plan period are given as follows:
### 9.12 Irrigation, Command Area Development and Flood Control

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Item of works</th>
<th>Target</th>
<th>Achievement during the IX Plan period</th>
<th>Cumulative achievement upto IX Plan period</th>
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<tr>
<td>1</td>
<td>Construction of Field Channels</td>
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<td>232858</td>
<td>884819</td>
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<td>2</td>
<td>Introduction of Warabandi</td>
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<td></td>
<td>Total</td>
<td>619251</td>
<td>635339</td>
<td>1602000</td>
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</tbody>
</table>

**Flood Control**

To provide permanent solution to Coastal erosion and Flood Control, a total sum of Rs. 67.82 crores had been allotted during the Ninth Five Year Plan, out of which a sum of Rs. 54.42 crores has been spent.

**Tenth Five Year Plan**

**Objectives And Strategies**

The main objective is to maximize the productivity per unit of water. The other objectives are

- Creating awareness of the message of water deficiency widely among the water users for irrigation by publishing journals and periodicals and circulating handouts about the water management practices,
- Increasing the efficiency of the use of water by evaluating the performance of the irrigation system annually,
- Implementation of the Participatory Irrigation Management Programme to promote and encourage the participatory activities of the water users in all the activities in their river basins and making decisions on the management of the irrigation system as well as regulating, controlling and developing of ground water.

The strategies suggested for adoption during the Tenth Plan are

- to rationalize and standardize the collection of hydrological data,
- to improve and maintain the existing irrigation systems through rehabilitation and modernization programme,
- to ensure economy in the use of water by avoiding possible losses in storing, conveyance and distribution of water,
- to provide facilities for the improved and modernized communication system for efficient water management system,
- to undertake research and development activities using remote sensing, geographic information system and other technologies for application to the problem of irrigation water management.
Targets for the Tenth Plan

- Increase in efficiency in use of water by implementing Participatory Irrigation Management.
- Rehabilitation and maintenance of Irrigation System, improving the storage condition and stabilizing the existing ayacut.
- Creation of new irrigation potential in 10,000 ha. by implementing the existing ongoing schemes.
- Enforcement of Ground Water Regulation.

New initiatives envisaged / contemplated in the Tenth Plan

- Rehabilitating / modernizing the water resources already created.
- Bridging the gap between the irrigation potential created and utilized.
- Improving water use efficiency of irrigation through economic use of water and appropriate water management methods.
- Planning will be sufficiently broad based and decentralized to enlist the participation of the people and involve them at both the formulation and implementation stages.
- Management of all irrigation tanks having command areas more or less than 40 ha by the water users association.
- To safeguard the reservoirs and tanks, sedimentation by soil erosion from the catchments to be reduced. For this catchment area treatment measures will be taken up.
- To safeguard the rivers and other water resources getting polluted, which adversely affect in the quality of both irrigation and drinking water, environmental planning will be implemented.

Enactment of law for enforcing discipline in water uses and removal of encroachments on water bodies and curbing of unauthorised water users is urgent. The diversion of surplus waters available in the west flowing rivers towards east and transfer of surplus flows from Mahanathi and Godavari to Cauvery and Vaigai has to be pursued. It may be worthwhile to constitute an Irrigation Research and Coordination Advisory Committee with knowledgeable Scientists and technologists both in and outside the Government to guide the research activity in the Water Resources Organisation. The Committee may give suitable advice and suggestions for collaborative efforts with the academic institutions in the State. For mobilising resources, revision of water rates, collection of betterment levy from beneficiaries, issue of water bonds and financial assistance from the external agencies can be considered.
Tenth Five Year Plan Schemes
Major and Medium Irrigation
Ongoing Schemes
I. Externally aided programmes
1. Water Resources Consolidation Project (Phase-I)

Water Resources Consolidation is a World Bank aided project. The project period is 7 years from 1995-96 to 2001-02. The Government accorded administrative sanction for 2,347 packages to modernize over 57 irrigation projects at a cost of Rs. 1,062 crores till March 2002. The World Bank has given its approval for the extension of the project by one-year upto March 2003. (Proposal for additional packages for a value of Rs. 158 crores has to be cleared by World Bank due to variation in exchange rate in the loan amount agreed in SDR (Special Drawing Rights). Therefore for completing the balance works a total provision of Rs. 266 crores is made in the Tenth Five Year Plan.

2. Dam Safety Assurance Project

Based on the Inspection report of the Dam Safety Review panel, the Dam Safety Project Phase I works were carried out in 13 dams and completed in 8 dams. In order to carryout the spill over works, the World Bank has agreed to give a credit of Rs. 35.70 crores for the Sathanur, Vidur and Gomukhi Dam, Willington Reservoir and Sethiarthope Anaicut for which a provision of Rs. 30 crores is made in the Tenth Five Year Plan.

3. Rehabilitation of 620 Minor Irrigation Tanks in Palar, Thamiraparani and Vaigai Basins under WRCP with World Bank Assistance

Government have accorded administrative sanction for rehabilitation of 620 Minor Irrigation Tanks at an estimated cost of Rs. 106.26 crores in Palar, Thamiraparani and Vaigai basins under WRCP with World Bank assistance. Tenders in respect of 615 tanks have been finalized and works are in progress. Remaining 5 tenders will be finalized soon and the work will be completed in the year 2002-2003. During the Tenth Five Year Plan a sum of Rs. 61 crores is provided.

II. State Schemes

1. Nanganjar Reservoir (Dindigul District)

The scheme contemplated formation of a reservoir across Nanganjar, a tributary of river Amaravathi near Idaiyankottai Village in Palani Taluk, Dindigul District to benefit 2530 ha. new Ayacut with a stablisation of 24 ha. of old Ayacut in Idaiyankottai, Valayaptti and Chinna Kamapatti villages in Vedachandur Taluk of Dindigul District and Sendamangalam Village of Karur Taluk in Karur District at an estimated cost of Rs. 25.70 crores during the Ninth Five Year Plan period. The Government have approved the reappraisal estimate of this project for Rs. 37.36 crores. The construction of uncontrolled spill way, construction of Dam and main canal works are in progress. To
complete the balance work a sum of Rs. 3.60 crores is provided in the Tenth Plan.

2. Irukkangudi Reservoir (Virudhunagar District)

This scheme is for the formation of reservoir across Vaippar near Irukkangudi village, Sattur Taluk, Virudhunagar District at a cost of Rs. 28.70 crores. The scheme is to stabilize an extent of 254 ha., bridging the gap of 255 ha. and giving new irrigation facilities to 3,705 ha. of dry lands in Vilathikulam Taluk of Thoothukudi District. In this scheme, the work of providing surplus regulators across Arjuna and Vaippar rivers is in progress and formation of earth dam (Shoal Portion) has to be taken up. To complete the balance works, a sum of Rs. 52.40 crores has been provided in the Tenth Plan period.

3. Medium and Minor Irrigation Projects

26 Medium and Minor Irrigation schemes / anicuts have been taken up during the Ninth Plan. Out of this, one scheme has been completed. To complete the remaining 25 Medium and Minor Irrigation projects/anicuts a total provision of Rs. 400 crores is made in the Tenth Five Year Plan.

New Schemes

1. Water Resources Consolidation Project (Phase-II)

Under Water Resources Consolidation Project Phase II the left out works under Water Resources Consolidation Project Phase I such as rehabilitation of MI tanks, channels and improvement of irrigation works will be undertaken with the cooperation of Water Users Association. The main aim of the project is to improve the storage capacity of reservoirs and tanks and improve irrigation efficiency. A preliminary proposal has been prepared at a cost of Rs. 2600 crores and sent to Government of India to seek World Bank aid under this project. The scheme will be taken up during the period 2003-2010. The proposal will benefit 6 L.ha. and 30 lakh farmers after its completion. In anticipation of World Bank approval for this project, a provision of Rs. 383 crores is made in the Tenth Five Year Plan.

2. Medium Irrigation Schemes

It has been proposed to carry out new works with an outlay of Rs. 40 crores during Tenth Five Year Plan.

3. Participatory Irrigation Management

In Tamil Nadu a command area of about 17 L.ha. is under the management and control of the Water Resources Organisation of PWD and only 6 L.ha. have been covered by FOT programme under the Water Resources Consolidation Project. Participatory Irrigation Management is gaining momentum in the State. The policy of the State Government is to extend PIM activities to more areas so as to consolidate the participatory activities of the water users in taking decisions relating to management of irrigation sources. Further, the PWD lands on both sides of the canal systems are to be resurveyed and demarcation to be made for identifying the correct boundary. To implement PIM activities, a sum of Rs. 225 crores is provided in the Tenth Five Year Plan.
4. Training

Irrigation Management Training Institute is imparting training to farmers, field level staff and officials of WRO, Agricultural Engineering Department and Agricultural Department on modern irrigation methods, problems on soil and quality of irrigation water, water management and broad based agriculture, water management for sustainable agriculture, Command Area Development and On farm training. In addition to the above, seminars on specific topics are also conducted periodically. For this purpose, a total provision for Rs. 30 crores is made in the Tenth Five Year Plan.

Minor Irrigation

Ongoing Schemes

1. World Bank Aided Hydrology Project

The Hydrology project was sanctioned for execution with the World Bank assistance in the year 1995. The project attempts to improve institutional arrangements, technical capabilities and infrastructure facilities available for collection, transmission, processing, storage, dissemination of hydrological, hydro meteorological and water quality. The project period is 6 years from 1995. To complete the balance work, the World Bank has extended the project period upto March 2003 for which a provision of Rs. 8 crores is made in the Tenth Five Year Plan.

2. Modernisation of 44 Non-System Tanks, Minor Irrigation Tanks with Loan Assistance of National Bank for Agriculture and Rural Development (NABARD) RIDF-V

The NABARD has extended loan assistance for modernizing 44 minor irrigation tanks spread over 23 districts of Tamil Nadu at an estimated cost of Rs. 14.66 crores to enhance the irrigation potential benefitting 5054 ha. The State Government has accorded sanction to this project for Rs. 14.66 crores. The work has been taken up for execution and will be completed during 2002-03 (ie., in the first year of Tenth Plan period). A total provision of Rs. 12 crores is made in the Tenth Five Year Plan.

3. State Tank Irrigation Project

The scheme was launched during the year 1995 to complete the ongoing works taken up for standardization and improvements of PWD tanks and ex-Zamin tanks. An amount of Rs. 8 crores is provided in the Tenth Five Year Plan.

4. SMIP & DCR Schemes

To complete the balance work taken under Ninth Plan for Special Minor Irrigation programmes and desilting cum rehabilitation of tanks, lump sum provision of Rs. 10 crores is made in the Tenth Five Year Plan.
New Schemes

1. **Rehabilitation of MI Tanks Under Assistance From Japan Bank of International Co-operation (JBIC)**

   It is proposed to rehabilitate 1798 Minor Irrigation tanks for the development of rural areas with the assistance from Japan Bank of International Cooperation (JBIC) in the Districts of Kancheepuram, Thiruvallur, Sivaganga, Ramanathapuram and Virudhunagar benefiting 1,71,600 ha. The proposal had been sent for consideration for assistance. The project will be implemented during the Tenth Five Year Plan period after getting sanction from JBIC. A sum of Rs. 50 crores is provided for the scheme in the Tenth Five Year Plan.

2. **Modernisation of Non System Minor Irrigation Tanks With Loan Assistance of NABARD RIDF-VII.**

   It is proposed to modernize 1500 Minor Irrigation tanks in Tamil Nadu with the loan assistance from NABARD RIDF-VII for enhancing the irrigation potential. The project will be implemented for which Rs. 50 crores is provided during Tenth Five Year Plan period after getting loan sanction from NABARD.

3. **Ground Water Survey**

   The State Ground and Surface Water Resources Data Centres of Water Resources Organization in Public Works Department is in charge of Ground Water Investigation and assessment of Ground Water potential in the State. The Data centre is also responsible for collection of data pertaining to surface water flow in the entire Tamil Nadu State. Special studies on development, augmentation, conservation and management of ground water resources are also undertaken which are essential for equitable distribution of the available ground water resources. For carrying out Ground Water Survey, Data Processing, Research and Development, Publication of Journal, Rain Water Harvesting, Awareness Programme, a total provision of Rs. 54 crores is made in the Tenth Five Year Plan period.

4. **SMIP AND DCR Schemes**

   To carryout new DCR schemes and 105 SIMP schemes, proposals are under consideration of the Government. A total provision of Rs. 108 crores is made in the Tenth Five Year Plan.

5. **Minor Irrigation Projects**

   For 19 new schemes, proposals are under consideration of the Government, for which a sum of Rs. 200 crores is provided in the Tenth Five Year Plan.
Command Area Development Programme

I. Ongoing Project

A. On Farm Development Works

In respect of On Farm Development works, it is programmed to continue seven commands viz., Cauvery Command, Parambikulam Aliyar Project, Kodaiyar Chittar Pattanamkal Project, Tambiraparani River Basin Project, Krishnagiri Reservoir Project, Palar Porandalar Project and Thoppaiyar Project.

An outlay of Rs. 200.61 crores is provided in the Tenth Five Year Plan for implementation of the scheme to cover an area of 2,00,610 ha. by adopting unit cost of Rs. 10,000/- per ha.

B. Rotational Water Supply

During the Tenth Five Year Plan, it is aimed to cover an area of 4,28,970 ha. under Rotational Water Supply with unit cost of Rs. 500/- per ha. A sum of Rs. 21.45 crores is provided for the purpose.

II. New Schemes

1. On Farm Development and Rotational Water Supply

It is programmed to take up Command Area Development Programme in 10 commands viz., Marudhanathi Project, Noyyal Project, Kariyakoil Project, Aanaimaduvu Project, Chinnar Panchapalli Project, Vattamalaikarai Odai Project, Gadana and Rama Nadhi Project, Nambiar Project, Neyyar Project and Manimuthar Project during the Tenth Five Year Plan period. A total provision of Rs. 43.88 crores is made in the Tenth Five Year Plan, of which a sum of Rs. 41.79 crores is for On Farm Development works and Rs. 2.09 crores for Rotational Water Supply under new schemes.

2. Training Centre at Trichy

To impart training on latest water management techniques to the executive staff of the sub-divisions it is programmed to construct training centre at Trichy. A sum of Rs. 1.50 crores is provided in the Tenth Five Year Plan.

III. One Time Functional Grant

In Command Area Development Works, the success of the scheme depends on the involvement of farmers who are the ultimate beneficiaries. In the long run, they are motivated for group action to organize and associate themselves for taking up water management activities on their own. An amount of Rs. 30 crores is provided to release the one time functional grant to the registered farmers councils during Tenth Five Year Plan period at the rate of Rs. 500/- per ha (centre share Rs. 225/- per ha, State share Rs. 225/- per ha and farmers contribution Rs. 50/- per ha).
IV. Establishment cost of all commands and Technical Cell at Head
Quarters

To cover the establishment cost of all commands and Technical Cell at
headquarters, a sum of Rs. 53.19 crores is provided in the Tenth Five Year
Plan.

Tenth Five Year Plan Outlay

A sum of Rs. 350 crores is provided for Command Area Development
Programme in the Tenth Five Year Plan of which the State's share will be
Rs.175 crores and Central assistance on matching basis will be Rs.175
crores.

Flood Control And Anti-Sea Erosion Works

Ongoing scheme

To complete the spill over works taken up in the Ninth Plan, a sum of
Rs.10 crores is provided in the Tenth Plan period.

New Schemes

To take up flood control and anti sea erosion measures, new scheme
proposals with an outlay of Rs. 169.39 crores for incorporation in the National
Coastal Projects have been sent to the Central Water Commission, New Delhi
for posing for external assistance to Netherlands. For this a total sum of
Rs. 169 crores is provided in the Tenth Five Year Plan.

The list of the projects/ schemes and the requirement for the Tenth Five
Year Plan as indicated above may be seen from the Table below:

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<thead>
<tr>
<th>S.No.</th>
<th>Name of the Scheme</th>
<th>Tenth Plan Outlay (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>A Spillover schemes / programmes / projects</td>
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<tr>
<td></td>
<td>Externally aided projects</td>
<td></td>
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<tr>
<td>1.</td>
<td>Water Resources Consolidation Project – Phase I</td>
<td>266</td>
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<tr>
<td></td>
<td>(World Bank Project)</td>
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<tr>
<td>2.</td>
<td>Dam Safety Assistance Scheme</td>
<td>30</td>
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<td>3.</td>
<td>Tank Modernisation Programme (620 tanks)</td>
<td>61</td>
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<td>State schemes</td>
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<td>4.</td>
<td>Medium Irrigation schemes (Nanganjiyar and Irrukangudi)</td>
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<td>5.</td>
<td>Medium and Minor Irrigation Schemes/ anicuts</td>
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<td>Sub Total (I)</td>
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<td>II.</td>
<td>New Schemes/ Programmes / Projects</td>
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<td>Externally aided projects</td>
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<td>1.</td>
<td>Water Resources Consolidation Project – Phase II</td>
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<td>New Schemes ((Medium) to be identified)</td>
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### II. Minor Irrigation

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<td>1.</td>
<td>Hydrology Project for Tamil Nadu (World Bank)</td>
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<td>2.</td>
<td>Modernisation of Non system MI Tanks with NABARD-RIDF—V assistance</td>
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<td>3.</td>
<td>SMIP and DCR Schemes</td>
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<td>4.</td>
<td>State Tank Irrigation Programme</td>
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<td>Ex-Zamin Tanks</td>
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<td>b)</td>
<td>PWD Tanks</td>
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<td>Sub Total (I)</td>
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<td>II.</td>
<td>New Schemes / Programmes / Projects</td>
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<td>1.</td>
<td>NABARD – Assistance RIDP-VII</td>
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<td>2.</td>
<td>Rehabilitation of Minor Irrigation Tanks under Assistance from JBIC</td>
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<td>3.</td>
<td>State Plan -Ground Water</td>
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<td>4.</td>
<td>SMIP Schemes (105 Schemes and DCR Schemes)</td>
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<td>5.</td>
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<td>462</td>
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<tr>
<td><strong>Total: Minor Irrigation</strong></td>
<td></td>
<td><strong>500</strong></td>
</tr>
</tbody>
</table>
III. Command Area Development Programme

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the Scheme</th>
<th>Tenth Plan outlay (Rs. in crores)</th>
<th>Physical Target (in ha.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>On Farm Development Works</td>
<td>242.40</td>
<td>242400</td>
</tr>
<tr>
<td>2.</td>
<td>Rotational Water Supply Works</td>
<td>23.54</td>
<td>470760</td>
</tr>
<tr>
<td>3.</td>
<td>Training Centre at Trichy</td>
<td>1.50</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>One Time Functional Grant</td>
<td>30.00</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>Establishment cost of all Commands and Technical cell at Head Quarters</td>
<td>53.19</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total - Command Area Development Programme</td>
<td>350.63*</td>
<td></td>
</tr>
</tbody>
</table>

**ABSTRACT**

(Rs. in crores)

| I. Major, Medium Irrigation and Flood Control | 1670 |
| II. Minor Irrigation                         | 500  |
| III. Command Area Development Programme      | 175  |

**Total - Irrigation Sector** 2345

The outlay approved by the Union Planning Commission for Major, Medium Irrigation and Flood Control is Rs. 1700 crores. There is a minor variation in the requirement as indicated above of Rs. 1670 crores from the outlay approved by the Union Planning Commission - the reduction has been dictated by the need to provide a higher amount for certain other sectors. This will be taken care of in the Annual Plans and the Mid-Term Appraisal.

* The outlay will be restricted to Rs. 350 crores (shared equally between the State and Central Government. The share of the State Government will therefore be Rs.175 crores.)