

## 8. TAMILNADU WATERSHED DEVELOPMENT AGENCY (TAWDEVA)

### Introduction

Tamil Nadu Watershed Development Agency (TAWDEVA) was established in 2002 and registered under Society Registration Act 1975 with Head quarters at Chennai. This agency is functioning under the administrative control of Government in Agriculture Department and an independent and autonomous authority vested with full executive and financial powers. The primary objective is to develop the wasteland and subsequently the watershed development programmes like National Watershed Development Project for Rainfed Areas (NWDPR), Watershed Development Fund (WDF) and Integrated Watershed Management Programme (IWMP) funded by various Ministries. National Agriculture Development Programme (NADP) is also implemented by this agency. In addition, from 2010-2011 onwards, Western Ghats Development Programme (WGDP) is implemented in 3 districts viz., Theni, Dindigul and Madurai on Watershed approach basis.

TAWDEVA is the Nodal Agency for various State / Central schemes such as National Agriculture Development Programme (NADP), National Food Security Mission (NFSM), Agriculture Technology Management Agency (ATMA), AGRISNET and National Project on Management of Soil Health & Fertility.

### 1. Distribution of Government Wasteland to Landless Poor Agricultural Labour Families:

The Government announced this scheme during 2006-2007. The scheme is implemented in all districts

except Chennai and Nilgiris. The lands covered under this scheme are categorized into 3 types:

Category I	:	Government wastelands without any encroachment
Category II	:	Government wastelands under encroachment by small and marginal farmers
Category III	:	Private patta waste lands of small and marginal farmers

### Objectives of the Scheme:

- i. Identification of wastelands and developing these lands by undertaking land development wherever required and issue of patta to landless poor agricultural labourer families.
- ii. Wherever contiguous blocks of 10 acre and above of category I and II lands exist with sufficient ground water, efforts are taken to develop them.
- iii. Wherever the private patta wastelands along with punjai lands are available in a cluster of 50 acre and above with sufficient ground water, such lands are taken up for cluster development.

In case, the ground water is not available, depending upon the preference Bio-mass tree species and fodder crops are planted and given to the farmers.

### Project Implementation

#### a. Land Development:

After the identification of wasteland by the Revenue Department, wherever the land development is required, it is undertaken by Agricultural Engineering Department. So far, 33,287 farmers have been benefited through 53,818 acres land development. Under this programme, 16,471 farm ponds have been formed.

**b. Development of land parcels of 10 acre and above:**

Under the development of land parcels of 10 acre and above in category I and II, 120 clusters with an extent of 2253.78 acres (out of 143 over an extent of 2656.92 acres) with an outlay of ` 609.72 lakhs have been developed by planting of Horticulture crops.

**c. Development of Horticulture crops in private patta wastelands along with punjai lands in a cluster of 50 acre and above.**

The Government have sanctioned the scheme to develop in the patta wasteland and dry lands of 50 acres and above lands of small and marginal farmers in clusters. So far 47 clusters benefiting 1620 farmers covering an extent of 2627.23 acres have been taken up for development by planting horticulture / bio-mass crops with ` 623.97 lakhs. Out of this, 10 clusters covering an extent of 552.20 acres have been developed.

**d. Development of Agriculture crops in private patta wastelands along with punjai lands in a cluster of 50 acre and above.**

This scheme is being implemented from 2009-2010 onwards for the development of agriculture crops in patta wasteland and dry lands in an extent of 50 ac. and above lands of small and marginal farmers. So far, 10 clusters covering an extent of 563.03 acres have been taken up for development by planting agricultural crops with ` 275.19 lakhs.

An expenditure of ` 2716.64 lakhs has been incurred towards the development of wastelands.

**2. National Watershed Development Project for Rainfed Areas (NWDPR):**

National Watershed Development Project for Rainfed Areas (NWDPR) Programme is being implemented in Tamilnadu from VIII Five Year Plan (1990 – 1991) onwards. The project is shared between Centre and State on 90:10 basis.

**Objectives:**

- ❖ Conservation, development and sustainable management of natural resources including their use.
- ❖ Enhancement of Agricultural productivity and production in a sustainable manner.
- ❖ Restoration of ecological balance in the degraded and fragile rainfed eco-systems by greening these areas through appropriate mix of trees, shrubs and grasses.
- ❖ Reduction in regional disparity between irrigated and rainfed areas.
- ❖ Creation of sustained employment opportunities for the rural community including the landless.

The scheme is implemented under the Chairmanship of the District Collector through DWDA at District level and through Watershed committees/Associations at Village level. Under NWDPR during X plan, an area of 2,90,338 ha was developed with an outlay of ` 130.65 crores covering 755 watersheds in 23 districts.

During XI Plan, it is proposed to treat an area of 1,15,600 ha. covering 200 watersheds in 18 districts at an estimated cost of ` 69.36 crores.

During 2011-2012, it is proposed to treat 20,583 ha with an outlay of ` 12.35 crores.

### 3. Watershed Development Fund assisted by NABARD:

Watershed Development Fund in Tamilnadu has been created to treat 100 watershed projects at a cost of ` 60 Crores with the assistance of National Bank for Agriculture and Rural Development (NABARD). The scheme is in operation since 2004-2005.

#### Objective of the scheme:

1. To spread the message of Participatory Watershed Development.
2. Involvement of Government, NGOs/Voluntary organization in implementation.
3. Constitution of Watershed Associations & Watershed Committees to develop the watersheds, based on the local needs.

#### Components of Watershed Development Fund:

As per new Guidelines made operational since 21.11.2007

1. Capacity Building Phase of Watershed Development Fund is 100% grant component being released by National Bank for Agriculture and Rural Development (NABARD).
2. For the development of watersheds during Full implementation phase funds are provided by NABARD to the State Government on 50% loan and the rest on grant basis. Hence the number of projects has been increased from 100 to 154.
3. Interest rate is 4.5%
4. Repayment period 9 years (3 years after availing Loan)

#### Project period:

1.	Capacity Building Phase (50 to 100 Ha. to be covered)	18 months.
2.	Preparation of feasibility study report.	6 months.
3.	Full implementation Phase	3 years
	<b>Total period</b>	<b>5 years.</b>

### Area of Implementation:

At present the programme is being implemented in 24 Districts viz Coimbatore, Cuddalore, Dharmapuri, Dindigul, Kancheepuram, Karur, Krishnagiri, Madurai, Namakkal, Perambalur, Ariyalur, Pudukottai, Ramanathapuram, Salem, Sivaganga, Theni, Thoothukudi, Tirunelveli, Thiruvallur, Tiruvannamalai, Tiruchirapalli, Vellore, Villupuram and Virudhunagar.

Apart from the regular watersheds that are being approved by the State Steering Committee, there are 11 PPID projects (Pilot Project for Integrated Development of Backward Blocks) in 5 Districts namely Ramnathapuram, Dindigul, Thoothukudi, Tiruchirapalli and Nagapattinam which is fully funded by NABARD.

Allotment of fund for different component which would be effective for new Full Implementation projects from 2009-2010.

Unit cost per Ha.		` 12,000
Physical treatment	70 %	` 8,400
Administrative overheads	10%	` 1,200
Livelihood support for Landless Farmer & Women	7.5%	` 900
Community Organisation & Training programme	12.5%	` 1,500

### Project Implementation:

In the first 2 years period of the project, Capacity Building is done during the first 18 months and Feasibility Study is done in the next 6 months with the assistance from NABARD.

From the third year the project is handed over to TAWDEVA by NABARD to carry out works in the Full Implementation Phase.

Presently, with NABARD Grant assistance, the number of projects taken up is 154 of which 79 projects are in full implementation stage.

In total so far an area of 20000 hectares has been treated at a cost of ` 1334.78 lakhs. During 2011-2012, treatment works would be taken up in the current 44 full implementation projects handed over to TAWDEVA by NABARD.

#### **4. National Agriculture Development Programme**

The National Agriculture Development Programme has been launched to achieve 4% annual growth rate in agricultural sector.

##### **Objective:**

- To promote participation of farmers in cluster mode in agriculture.
- Reducing yield gap in key crops through focused interventions.
- Maximize returns to the farmers.
- Bringing quantifiable changes in the production and productivity of agriculture and allied sectors.

The pattern of funding is 100% grant by the Government of India. Under the programme, schemes of Agriculture, Horticulture, Agricultural Engineering, Tamilnadu Agricultural University, Seed Certification, Agricultural Marketing, Animal Husbandry, Dairy Development & Milk Production, Fisheries, Tamilnadu Veterinary & Animal Sciences University, Public Works Department (Irrigation) and Tamilnadu Civil Supplies Corporation are being implemented. Tamilnadu Watershed

Development Agency (TAWDEVA) is the Nodal Agency for National Agriculture Development Programme (NADP).

#### **5. Integrated Watershed Management Programme (IWMP)**

The IWMP is being implemented in 1149 watersheds of 24 districts from 2009-2010 onwards. The share of the Central and State funding pattern is 90:10. The Government of India have sanctioned to treat an area of 5.71 lakh Hectares with a project cost of ` 685.25 crores over a project period of 7 years. So far ` 84.18 crores have been released by the Centre and State and an expenditure of ` 19.53 crores has been incurred towards preliminary activities. It is proposed to treat an area of 2.71 lakh Ha in 7 years with a project outlay of ` 325.20 crores for the year 2011-2012.

##### **Objectives:**

- ❖ Balanced use of Natural Resources and Livelihood by Watershed approach and efficient watershed management by mobilizing social capital.
- ❖ Restoring ecological balance by harnessing, conserving and developing national resources.
- ❖ Resource development usage will be planned to promote farming and allied activities, to promote local livelihood, to ensure resource conservation and regeneration.
- ❖ Creating sustainable water resources and to have sustainable source of income for the rural community by conserving water in watershed areas by following multi tier approach.
- ❖ Utilizing the information technology and remote sensing inputs in planning, monitoring and evaluation of programme.
- ❖ Promoting overall development in rural areas.

State Level Data Cell (SLDC) in TAWDEVA and Watershed Cell cum Data Centre (WCDC) at district level in DWDA have been established.

For the implementation of the IWMP 2009-2010 projects over a period of 4 -7 years, 20% share amount of Government of India and State amounting ` 61.789 crores has been released so far and under this project, the preparatory phase activities like Base Line Survey, Participatory Rural Appraisal, Entry Point Activities and Detailed Project Report preparation were completed and the project works are under progress. For the year 2010-2011, 62 projects were sanctioned by Government of India and 6% of Government of India and State share of ` 22.391 crores was released by GOI and State Government to carry out preliminary activities.

#### 6. Drought Prone Areas Programme (DPAP):

Major part of Tamil Nadu falls under semi-arid tropical zone with erratic rainfall. To minimize the adverse effects of drought on the production of Crops, Productivity of land, water and human resources, the Drought Prone Areas Programme is being implemented in some districts of Tamil Nadu from 1972-1973 and presently in 80 notified blocks of 17 districts identified by the Government of India as drought prone areas. Efforts are on to mitigate the adverse effects of drought conditions in these areas.

#### List of blocks wherein the programme is under implementation

Sl.No.	Districts	Blocks
1	Coimbatore	Annur, Avinashi, Palladam, Tirupur, Suler
2	Dharmapuri	Morapur, Nallampalli, Dharmapuri, Palacode, Pennagaram, Karimangalam
3	Dindigul	Athoor, Natham, Kodaikanal,
4	Karur	Aravakurichi, K. Paramathi
5	Krishnagiri	Bargur, Hosur, Kelamangalam, Shoolagiri, Thalli, Uthangarai, Veppanapalli, Mathur
6	Namakkal	Mallachamudram, Elachipalayam, Pudukhathiram
7	Perambalur	Andimadam, Ariyalur, Sendurai, Veppur, Alathur, Jayamkondan
8	Pudukkottai	Gandarvakottai, Karambakudi, Pudukkottai, Thiruvarankulam
9	Ramanathapuram	Bogalur, Kadaladi, Kamuthi, Mandapam, Mudukulathur, Paramakudi, Thirupullani
10	Salem	Nangavalli, Mecheri, Konganapuram, M.D. Choultry, Kadayampatti
11	Sivagangai	Devakottai, Ilayangudi, Kalayarkoil, Kallal, Kannangudi, Singampuneri, S.Pudur
12	Thoothukudi	Kayathar, Kovilpatti, Ottapidaram, Pudur, Sathankulam, Thoothukudi, Udangudi, Vilathikulam
13	Tiruchirappalli	Thuraiyur
14	Tirunelveli	Kuruvikulam
15	Tiruvannamalai	Cheyyar
16	Vellore	Vellore, Kaniyambadi, Thimiri, Katpadi, Alangayam, Kanthili
17	Virudhunagar	Kariapatti, Narikudi, Sattur, Sivakasi, Vembakottai, Virudhunagar, Aruppukottai

Over the years, the objectives of the programme and the mode of implementation have undergone modifications from infrastructure creation and employment generation to rainwater harvesting and concentration on overall economic development through water-based activities. On the operational side, implementation has shifted from line departments to Village Panchayats wherein the user groups have identified the works and execute the works through village panchayats as per Hariyali Guidelines. Watershed approach with peoples' participation is given importance to tackle the problems of desertification. The Government of India and State Government share the expenditure for a watershed project with 500 hectares in the ratio of 75:25. The duration of the project is five years from the year it was sanctioned and the unit cost per hectare is ` 6000/-. The cost of the works undertaken under this programme is entirely met from project fund. However 10% contributions are collected from beneficiaries. In respect of community works and SC/ST, the contribution amount is 5% of the value of the work. These funds are deposited in a separate account maintained in the watershed and it will be utilized for the maintenance of the assets created under these programme after exit.

The following activities are taken up under the Drought Prone Areas Programme:-

- Land Development : Land Levelling, Contour Bunding, Silt Application, Stone Bunding, Retaining Wall, Summer Ploughing, Vegetative Bunding and Continuous trenching.
- Water Resources Development : Cattle Pond, Farm Pond, Formation of Oorani, Desilting of Tanks, Formation of Supply Channel and desilting, Check Dams, Percolation Pond and Development of Drinking Water Resources.

- Plantation Activities : Agro Forestry, Horticulture Plantation, Fodder Development, Crop Demonstration, Community Nursery, Social Forestry and Homestead Garden.

Under Drought Prone Areas Programme, watersheds are sanctioned by Government of India in batches. From 1999-2000 to 2006-2007 the Government of India have sanctioned 1,222 watersheds in 7 batches at a total project cost of ` 33,670 lakhs, for treating a total area of 6,14,142 Ha. The Government of India and State Government have released ` 29,604.64 lakhs. Of which ` 27,748.71 lakhs have been spent by the District Rural Development Agency of 17 districts and a total area of 5,12,199 Ha have been treated. The details of ongoing 1,222 watersheds are given below.

**(Rs. in Lakhs)**

No. of Ongoing Watersheds	1,222
Projects cost	33,670.00
Government of India	25,252.50
Government of Tamil Nadu	8,417.50
Amount Released (upto March 2011)	29,604.64
Government of India	22,258.29
Government of Tamil Nadu	7,346.35
Expenditure (upto March 2011)	27,748.71 (94%)
Area Treated (Hect) (upto March 2011)	5,12,199 (83%)

During the financial year of 2010-2011, the Government of India have released ` 1,618.195 lakhs and the State Government have released its share of ` 505.162 lakhs under DPAP and the programme is being implemented.