

4. TAMIL NADU HORTICULTURE DEVELOPMENT AGENCY (TANHODA)

Tamil Nadu Horticulture Development Agency – TANHODA registered as a society under the Tamil Nadu Societies Registration Act 1975 for implementing various Horticulture Schemes funded by Government of India and Government of Tamil Nadu, functions as a “Special Purpose Vehicle” since 2004.

Schemes Operated through TANHODA

1. **Under Mission on Integrated Development of Horticulture**
 - a) National Horticulture Mission
 - b) National Bamboo Mission
2. **National Mission on Sustainable Agriculture**
 - a) On Farm Water Management through Micro Irrigation
 - b) Rainfed Area Development
3. **National Mission on Medicinal Plants**
4. **State Horticulture Farms**
5. **Tamil Nadu IAMWARM Project (Tamil Nadu Irrigated Agriculture Modernization and Water Bodies Restoration & Management)**

108

Since horticulture produces are more perishable in nature, thrust is now being given to project based activities. 'Post Harvest Management' wherein focus on post harvest losses and promotion of Farmer Producer Organizations (FPO) and their tie up with Market Aggregators (MAs) and Financial Institution (FIs) to ensure support and adequate returns to the farmers are contemplated.

1.1.1. Area Coverage under Focus crops:

Establishment of New Gardens is aimed in fruits, vegetables, flowers, spices, aromatic and plantation crops. During the last 3 years (2011 – 12 to 13 – 14) an area of 58,576 Ha. had been covered with an expenditure of Rs.8,926.933 lakhs and during 2014-15 it is proposed to cover 13,031 Ha. with an expenditure of Rs.2,093.30 lakhs under this programme by supply of quality seeds and planting materials.

1.1.2. Quality Planting Material:

During the last 3 years (2011 – 12 to 13 – 14) an expenditure of Rs.259.50 lakhs allocated for the supply of quality Planting Material. During the year 2014 – 15 an amount of Rs.1,243.55 lakhs is proposed to be allocated for small nursery, Model nursery, and Tissue culture units and for vegetable seed production both under public and private sector for the production of quality seeds and quality planting materials.

1.1.3. Productivity Increase:

During the last 3 years (2011 – 12 to 13 – 14) an expenditure of Rs.8,323.765 lakhs allocated for increasing the productivity of the Horticulture Crops and income to the farmers assistance to the farmers through protected cultivation, Rejuvenation, mechanization, INM/IPM, Pollination Support, Creation of water resources, etc., and

110

1. Schemes Shared Between Central and State Governments

1.1. National Horticulture Mission

National Horticulture Mission aims for holistic development of horticulture that includes Expansion of area under High income generating horticulture crops, Promotion of Extension technology, Post-Harvest Management and Marketing. The focus is for crop diversification and increasing the area under horticulture crops.

This is one of the flagship programmes of Government of India being operated on a mission mode from 2005-06 onwards. This scheme is implemented in 22 districts i.e., Ariyalur, Coimbatore Cuddalore, Dharmapuri, Dindigul, Erode, Kanyakumari, Krishnagiri, Madurai, Perambalur, Pudukottai, Ramanathapuram, Salem, Sivagangai, Thanjavur, The Nilgiris, Theni, Tiruppur, Tirunelveli, Trichy, Vellore and Villupuram with Centre and State sharing pattern on 85:15 basis. During XII Plan period, i.e from 2014–15 this scheme is subsumed under Mission for Integrated Development of Horticulture (MIDH)

Activities like, area expansion under high value horticulture crops including hybrid vegetables, production of quality planting materials, rejuvenation, creation of water resources, protected cultivation, INM/IPM, Organic farming, mechanization, Post Harvest Management, creation of marketing infrastructure and human resource development, Centre of Excellence for Horticulture crops, Promotion of Farmer Producer Organization / Farmers Interest Groups / Growers Association, etc., are being implemented under this scheme.

109

an outlay of Rs.3,740.75 lakhs proposed during the year 2014-15.

1.1.4.Organic Farming

Farmers are motivated to take up organic cultivation of horticultural crops through training followed by certification. One project mode activity was started during 2013-14 under Organic Certification for 1,000 Ha. coverage in three years period. Further, during 2014-15 it is proposed to cover 5,000 Ha. in three years period with an outlay of Rs.350 Lakhs.

1.1.5.Post Harvest Management

An amount of Rs.1,140.50 Lakhs is proposed for the year 2014-15 towards assistance for establishment of pack houses, pre-cooling units, Cold rooms, Mobile pre-cooling units, Cold storages, Processing Units, Ripening Chambers, Low Cost Onion Storage, etc., on project mode.

1.1.6.Centre of Excellence

Centre of Excellence is a place to identify the technologies, improved cultivation practices and varieties very much suitable for the region through series of demonstrations and trials which will function as “One stop shop” for farmers and entrepreneurs to get trained on latest technologies of a crop.

Such Centres of Excellence, one for vegetables at Reddiyarchathiram of Dindigul District (Rs.1,018 Lakhs) and another for cut flowers at Thally of Krishnagiri District (Rs.880 Lakhs) are being established. Open cultivation of vegetables using technologies like mulching and drip irrigation demonstrated at Reddiyarchathiram during the year

111

2013-14. The crops like Tomato, Brinjal, Bhendi and Chillies are cultivated by using drip irrigation & mulching technology successfully. As a part of Centre of Excellence other works like construction of administrative building with training hall and other amenities are in progress in both the centres. The works will be completed before 2014-15.

During 2014 – 15 it is proposed to implement this scheme to cover 15,870 Ha. with an outlay of Rs.12700 Lakhs.

As per the announcement of the Hon'ble Minister for Agriculture, potato seed tuber production was taken up by 17 farmers at Thalavady, Erode district and 19 farmers of Thally, Krishnagiri District in 50 acres with a subsidy amount of Rs.5 Lakhs. The seeds have been harvested and supplied for further multiplication in State Horticulture Farms at Ooty and Kodaikanal.

The International Horti Fest 2014 will be conducted at Coimbatore during the 1st week of November 2014 as announced by the Hon'ble Minister for Agriculture.

1.1.7. National Horticulture Mission – A Boon to Horticulture Crops

Success Stories - I. Capsicum under Poly House

At Krishnagiri District, from the cultivation of 4000 No. of Red, yellow and Green coloured hybrid varieties of capsicum under poly house condition in an area of 1,000 Sq.mt, totally 12 Mt produce was harvested and sold for Rs.4.40 Lakhs with the first harvest started on 52nd day and went up to 180 days. After deducting the expenditure of Rs.1.18 Lakhs a net profit of Rs.3.32 Lakhs was received in 8 months.

112

Tamil Nadu is a water starved State. Water is a serious limiting factor as the State has harnessed the available surface water potentials. In order to enhance the water use efficiency, Hon'ble Chief Minister during 2011 announced 100% subsidy for SF/MF and 75% subsidy for Other Farmers for Micro Irrigation as it is envisaged in the Tamil Nadu Vision 2023 documents to cover atleast 50% of the States' net cultivated area in next 10 years. It gives thrust for achieving higher level of productivity with available water besides optimal use of fertilizers and restricted weed growth. This scheme has been upscaled as National Mission on Micro Irrigation (NMMI). This scheme is being implemented by TANHODA through registered and empanelled Micro Irrigation Firms. Totally 93,868 Ha. crops has been covered under Micro irrigation in the past three years for which Rs.39,070 Lakhs has been spent.

This Micro Irrigation scheme is subsuming as a component of "National Mission for Sustainable Agriculture scheme" as On Farm Water Management (OFWM) from 2014-15.

OFWM will focus primarily on enhancing water use efficiency by promoting efficient on-farm water management technologies, efficient water application & distribution system, secondary storage and drainage development. It is expected that adoption of improved methods of irrigation such as drip & sprinkler will not only save water, power, fertilizer consumption, weeding cost, etc. but it will also mitigate water logging and soil salinity.

In the year 2014-15, it is programmed to cover 34,373 Ha with an outlay of Rs.24,290 Lakhs under National Mission for Sustainable Agriculture (NMSA).

114

Success Stories – II Gerbera Cultivation under Poly House

At Hosur block of Krishnagiri district from the cultivation of 7000 nos. Gerbera plants in 1000 Sqmt totally 2.4 Lakhs flowers @ Rs.2/- flower gave a gross income of Rs.4.80 Lakhs with the first harvest started from 90th day onwards @ 2 flowers / plant up to 4th month and 3-4 flowers / plants from 5th month. After deducting the expenditure of Rs.1.80 Lakhs, a net profit of Rs.3.00 Lakhs per year was received.

1.2.National Mission for Sustainable Agriculture (NMSA)

With Objectives to optimize utilization of Water Resources to make agriculture more productive, sustainable, remunerative and climate resilient along with Comprehensive Soil Health Management Practices and to conserve Natural resources, National Mission for Sustainable Agriculture (NMSA) has been formulated by GOI during 2014-15. Components such as Rainfed Area Development (RAD), Soil Health Management (SHM), On Farm Water Management (OFWM) and Climate Change and Sustainable Agriculture Monitoring, Modelling & Networking (CCSAMN) will be implemented under NMSA.

1.2.1a.On Farm Water Management (Micro Irrigation)

Water is the most critical and precious input for cultivation of crops. The availability of water for irrigation is the deciding factor for production and productivity in Agriculture. However, the conventional irrigation system has not only resulted in poor yield and poor water use efficiency but also led to wastage of huge quantity of water. The Tamil Nadu Vision 2023 strategic plan for Agriculture and irrigation sector also provides support to micro Irrigation for increasing the water use efficiency.

113

1.2.1b. Micro Irrigation Model Village

The Hon'ble Minister for Agriculture has made announcement in the Assembly during 2012-13 that "Micro Irrigation Model Village in all districts with quick installation through IT enabled field inspection. This Micro Irrigation Model Village will serve as a demonstration village for farmers of surrounding villages and blocks.

In continuation to the above announcement, One village has been selected in each of the 31 districts (except Chennai) for adoption of Micro Irrigation in cent percent of its irrigated area. This scheme is being implemented from 2012-13 So far this scheme was implemented in 3,969.95 Ha. and 2,353 farmers were benefitted.

In 31 Micro Irrigation Model Villages, village campaigns were conducted during 2013-14 with a financial outlay of Rs.1.55 Lakhs benefitting 1,250 farmers under the leadership of the Chairman, District Micro Irrigation Committee/ the District Collector.

1.2.1c. Using Information Technology in Micro Irrigation scheme

As per the announcement made by the Hon'ble Minister for Agriculture in the Assembly during 2012-13, a State High Level Committee (SHLC) has been formed for monitoring the implementation of Micro Irrigation Scheme in Tamil Nadu. The SHLC on Micro Irrigation Scheme has recommended the use of IT tools in implementation of MI scheme and for making field inspection.

With the recommendations of SHLC, Government has issued guidelines for the adoption of IT tools for easy and quick method of field inspection.

115

- ❖ **(i) Third Party Inspection** - The Government has authorized the Commissioner of Horticulture and Plantation Crops to appoint a third party inspection agency and the expenditure is being met from the administrative cost of Micro Irrigation scheme.
- ❖ **(ii) Mobile Governance** - The objective of M-Governance is to develop a mobile phone based software using GIS/GPS and Geo-fencing concepts. Every field surveyed will be identified with its Geo-reference such as GPS co-ordinates (Latitude and Longitude) and Geo-Fencing.
The supervisory officers will visit the field and capture the photograph of the Micro Irrigation system installation. The image/photograph that is captured will be augmented with GPS coordinates, date and time of capturing the image and also unique identification. The cost will be met from the end to end computerization component of the Horticulture Department under National Agriculture Development Programme.
- ❖ **(iii) On line Monitoring:** Web based online monitoring system with the website www.mdtanhoda.gov.in/micro is already in practice in TANHODA for the implementation of Micro irrigation scheme right from Registration of application, approval by District Technical Committee, giving work completion certification, Check measurement by block level officer and release of subsidy. The existing online monitoring system has been modified and made user friendly.

National Informatics Centre, Chennai has been asked to develop "Customized software" by synchronizing of M-Governance, Third Party

116

2. Schemes Fully funded by Government of India

2.1.National Mission on Medicinal Plants (NMMP)

The major resource base of our indigenous health care traditions is Medicinal Plants. The outreach and acceptability of AYUSH systems, both nationally as well as globally, are dependent on uninterrupted availability of quality medicinal plants based raw material. More than 90% of the species used in trade continue to be sourced from the wild forest of which about 2/3rd harvest is not utilised. The cultivation of medicinal plants, therefore, is the key in meeting the raw material needs of the AYUSH industry besides offering opportunities for higher levels of income, crop diversification and growth of exports.

The National Mission on Medicinal Plants scheme was introduced in the year 2008-09 with the objective of providing support for the cultivation of medicinal plants in the farming system through crop diversification and enhances income of the farmers besides satisfying the ever increasing demand of Medicinal plants. It is a centrally sponsored scheme with 100% grant from Government of India through National Medicinal Plants Board which is functioning under the Ministry of Health & Family Welfare.

National Mission on Medicinal Plants scheme is implemented in 29 districts in the state. Under this scheme, 50% and 20% of graded subsidy assistance is provided for the cultivation of medicinal plants species such as Acorus, Aonla, Coleus, Aloe vera, Gloriosa, Solanum nigrum, Neem, Piper longum, Senna and Tulsi.

From 2011-12 onwards totally 17,139 Ha. has been covered under this scheme for which a sum of Rs.2,730 Lakhs has been spent.

118

Inspection with the Up gradation of existing on line monitoring system.

1.2.1d. Success Stories National Mission on Micro Irrigation – Model Village - Ariyur village, Namakkal district

At Mohanur block of Namakkal District Tapioca cultivated in an area of 2.90 ac with Drip Irrigation System 22.20 Mt. tuber / ac was harvested as against 17.60 Mt. tuber/ac of previous year without MI System with the incremental yield of 25% with additional net income of Rs.53,820/-.

1.2.2. Rainfed Area Development (RAD)

Rainfed Area Development Programme (RADP) was implemented as sub-scheme of NADP since 2011-12. During the last three years, 4,452 Ha. has been covered under RADP in horticulture crops with a financial achievement of Rs.1,742.51 Lakhs.

From 2014-15, RADP scheme will be implemented under National Mission for Sustainable Agriculture (NMSA) as Rainfed Area Development by following new guidelines. Farmers are encouraged to follow Horticulture based farming system in rainfed areas, protected cultivation and setting up of vermi-compost units under this component. 50% subsidy will be given for practicing the above interventions. During 2014-15, Rainfed Area Development in Horticulture Crops is proposed to cover an area of 3,120 Ha. with a financial outlay of Rs.1,041.67 Lakhs under NMSA.

117

During 2014-15, National Mission on Medicinal Plant scheme is proposed to be implemented at an outlay of Rs.1,323.075 Lakhs to cover an area of 8,272 Ha. under various medicinal plant species.

2.2.National Bamboo Mission

Bamboo is a versatile group of plants which is capable of providing livelihood security to the people. In recent past, it has remained confined to the forests (12.80% of forest cover) The importance of the crop as a source of raw material for domestic and industrial use has necessitated cultivation of bamboo in farm lands.

In Tamil Nadu, bamboo is cultivated in an area of 1,691 Ha. with an annual production of 30,438 MT. The average productivity is 18 Mt per Ha. It is cultivated mainly in the district of Thanjavur, Nagapattinam, Erode, Tiruvarur, Cuddalore, Trichy and Kancheepuram.

Keeping in view the vast untapped potential of the bamboo, the scheme on National Bamboo Mission was introduced in Tamil Nadu during 2007-08 with the objective of increasing the area coverage under bamboo in non – forest areas. The scheme also promotes marketing of Bamboo and Bamboo based handicrafts. It is a centrally Sponsored Scheme with 100% grant from Government of India.

During the year 2011-12, 250 Ha. was covered at an expenditure of Rs.40 Lakhs. During the year 2012-13, 100 Ha. was covered at an expenditure of Rs.20.05 Lakhs. 2013-14 target of 425 Ha. will be implemented in 2014-15 at an expenditure of Rs.104.04 Lakhs.

119

Now, Government of India has subsumed the National Bamboo Mission under the Mission for Integrated Development of Horticulture (MIDH) and issued new guidelines with revised cost norms to implement the scheme from 2014-15 onwards.

During 2014-15, it is proposed to implement this scheme under Mission for Integrated Development of Horticulture (MIDH) to cover an area of 310 Ha. at an outlay of Rs.186.029 Lakhs.

3. State Horticulture Farms

With an objective to produce pedigree known and quality planting materials of horticulture crops for supply to the farmers, 54 State Horticulture Farms and 10 Parks and Gardens are functioning in the State located in 20 districts. One more garden is being established at Vathalmalai in Dharmapuri district. The list of parks and gardens is given in the Annexure.

The latest technology, mechanization, farming techniques, irrigation methodologies, etc. to elucidate to the farmers, the merits of scientific horticultural practices are being demonstrated in these farms as emphasised in Tamil Nadu Vision 2023 document of Hon'ble Chief Minister. The Parks and Gardens acts as attraction centres to the tourists within the State, Nation and Internationally. It also acts as study centres to the students of Botany and Landscaping. The State Horticulture Farms act as demonstration centres for the following latest horticulture technologies.

- ✓ On high density planting of mango and cashew
- ✓ Top working in mango orchards

120

with latest choice varieties of mango, acid lime, guava, pomegranate, pine apple, sapota and some minor fruits, cashew, jasmine, rose have also been taken up in some of the farms to an extent of 55 Ha. during 2013-14.

As a new venture, high yielding varieties/hybrids of vegetables and flower seedlings are produced in pro trays for distribution to the farmers to advocate use of seedlings rather than seeds for better vigour and field establishment. During 2013-14, 15.799 Lakh Nos. of vegetable seedlings were produced and distributed and 258.539 MT of seed potato were produced and distributed to the farmers.

With an aim to expand the benefit of availability of quality planting materials within the district premises to the horticultural farmers, new farms are being established every year in the uncovered districts. From 2011 to 2013, the following farms were established.

- A new farm at Poonjuthi village in Melur taluk of Madurai district.
- A new farm at Thorakudi village in Srirangam taluk of Trichy district.
- A new farm at Polayampalli village in Harur taluk of Dharmapuri district.
- A new farm at Sandhaiyur village in Nilakottai taluk of Dindigul district.

State Horticulture Farms of Salem, Kanyakumari, Sivagangai, Pudukottai, Theni, Dindigul districts were accredited by the National Horticulture Board, Government of India certifying the production of quality and pedigree planting materials of horticulture crops. Processing for accreditation is in progress for remaining farms.

122

- ✓ Raising vegetable seedlings in pro trays
- ✓ Soft wood grafting in mango
- ✓ Introduction of new varieties of mango, pomegranate, guava and pepper
- ✓ Drip irrigation with fertigation

Under pedigree planting materials production of horticulture crops, during 2011-12, 166.77 Lakh Nos. of planting materials of horticultural crops was produced as against the target of 165.45 Lakh Nos. accounting to more than 100 % achievement with an expenditure of Rs.1,106.09 Lakhs and receipt through sales of planting materials was Rs.2,143.89 Lakhs. Similarly, during 2012-13, 209.98 Lakh Nos. were produced as against the target of 178.44 Lakh Nos. with an expenditure of Rs.1,502.82 Lakhs and receipt through farm sales was Rs.2,251.29 Lakhs.

During 2013-14, 178.79 Lakh Nos. of planting materials were produced as against the target of 189.48 Lakh Nos. accounting to 93% only. Severe depletion of irrigation water in farms resulted in constrained production of plants. The expenditure incurred during 2013-14 is Rs.1,616.45 Lakhs and receipt collected is Rs.3,063.13 Lakhs.

During 2014-15, it is programmed to produce 200.240 Lakh Nos. of plants with a proposed expenditure of Rs.2,079.43 Lakhs. The proposed receipts are projected as Rs.3,546.89 Lakhs.

To cover cultivable unutilized area in the farms and to bring them into production for increasing the land use efficiency and income of the farms, new area expansion and gap filling with latest choice varieties of horticultural crops is taken up every year. New area expansion and gap filling

121

To facilitate quality planting materials production for quality distribution, the State Horticulture Farms have to be constantly upgraded and modernized with the latest developments. With this idea, funds to a tune of Rs.1,423.42 Lakhs and Rs.502.383 Lakhs during 2012-13 and 2013-14 respectively has been sanctioned from National Agriculture Development Programme for Modernization and up gradation of State Horticulture Farms.

Accordingly, during 2012-13 and 2013-14, the State Horticulture Farms were provided with irrigation facilities, water conservation facilities and drip irrigation to closer planting areas besides providing farm infrastructures required for plant propagation activities. Further recently developed farm machinery and equipments for labour saving were also provided to the farms. In particular, during 2012-13 five farms namely State Horticulture Farm Vichanthangal (Kancheepuram), Mulluvadi (Salem), Aduthurai (Thanjavur), Vallathirakottai (Pudukottai) and Srivilliputhur (Virudhunagar) have been selected for overall development to attain saturation in terms of farm land and farm income and the works are in progress. During 2013-14 two farms namely Neyveli (Cuddalore) and Devakottai (Sivagangai) are selected for overall farm development and the detailed project report is under preparation.

4. Parks and Gardens

During 2011-12 there were 7 Parks and Gardens functioning under the control of TANHODA. Now, it has been increased to 10 numbers. These parks and garden attract large number of visitors. To further encourage the botanists and researchers and to attract more number of visitors, parks and gardens are being developed by acquiring lands and also by utilizing the available land in the State Horticulture Farms. The parks and gardens are

123

established to accomplish the aesthetic sense of tourists and public.

The Hon'ble Chief Minister on 15.10.12 inaugurated 3 parks and gardens through video conferencing for the benefit of the public.

- An Eco Park at Courtrallam in Tirunelveli District with an out lay of Rs.573 Lakhs in the State Horticulture Farm, Courtllam.
- A Government Botanical Garden at a cost of Rs.745 Lakhs in an area of 36 acres at Yercaud, in Salem district.
- A Genetic Heritage Garden at Yercaud in the Salem district at a cost of Rs.856 Lakhs in an area of 20 acres.

Apart from the above parks and gardens, works have commenced at Achadipirambu in Ramanathapuram District to establish a Genetic Heritage Garden in an area of 10 acres at an estimated cost for Rs.816 Lakhs and an Ornamental and Demo garden at Horticulture Training Centre, Madavaram in an area of 20 acres at an estimated cost of Rs.593 Lakhs.

In 2014-15, 205 Lakh Nos. of planting materials will be produced and distributed to the farmers. Rs.2,048.44 Lakhs will be utilized for planting materials production with receipt outlay of Rs.3,460.54 Lakhs.

During 2014-15, it is programmed to establish one ECO park at SHF, Kanyakumari and a Rose garden and Cut flower demonstration unit at SHF Kodaikanal apart from a Government Botanical Garden at Vathalmalai in Dharmapuri District and a Tea Park at Doddabetta in Nilgiris District.

4.1. Creation of Rose Garden and cut flower Demonstration unit at State Horticulture Farm, Kodaikanal.

TANHODA have taken steps to create a Rose Garden in an area of 4 Ha and a cut flower demonstration unit in an area of 0.40 Ha at State Horticulture Farm, Kodaikanal in Dindigul District based on the announcement made in the floor of Assembly.

In order to attract more No. of tourists to Kodaikanal and also to act as a study centre for the students and for the farmers, it is proposed to create a Rose Garden with a Cut Flower Demonstration Unit at State Horticulture Farm, Kodaikanal. The empanelled Landscape Architects had prepared the Landscape Design, drawing and project and the work was commenced in the first phase to the tune of Rs.380 Lakhs.

5. Externally Aided Project TN IAMWARM PROJECT Tamil Nadu Irrigated Agriculture Modernization and Water Bodies Restoration and Management Project – Horticulture.

TN IAMWARM project, an externally aided project is under implementation with an objective to bring crop diversification and area expansion with high value horticultural crops, in 61 sub basins of Tamil Nadu with a total outlay of Rs.7,846.50 Lakhs for Horticulture department.

The project was implemented in 9 sub-basins viz., Varahanadhi, Upper Vellar, South Vellar, Pambar, Manimuthar, Kottakkaraiyar, Arjunanadhi, Palar and Aliyar in

The details of number of visitors visited the Parks & Gardens in the State are given below.

S. No	Parks & Gardens	Extent (in Ha)	No. of Visitors	No. of Visitors
			2012-13	2013-14
1	Government Botanical Garden, Ooty	22.00	22,20,168	20,50,619
2	Government Rose Garden, Ooty	14.40	8,96,938	7,52,282
3	Sim's Park, Connoor	12.14	6,44,800	5,21,630
4	Park at SHF, Kattery, Ooty	18.96	16,265	24,714
5	Bryant park, Anna park & Chettiar park at Kodaikanal	10.28	6,66,954	6,52,412
6	Anna Park and lake view park at Yercaud	3.14	2,06,058	1,53,903
7	Semmozhi Poonga, Chennai	3.17	2,32,188	1,50,880
8	Eco park at Courtallam	14.89	40,014	49,118
9	Genetic Heritage Garden, Yercaud	8.27	65,206	69,438
10	Government Botanical Garden, Yercaud	14.58		
	TOTAL	121.83	49,88,591	44,24,996

the **first Phase** in 2007-08. subsequently the project was extended to another 16 sub-basins viz., Pennaiyar (up to Krishnagiri), Swethanadhi, Anaivari Odai, Chinnar, Agniar, Ambuliya, Upper Vaigai, Varattar-Nagalar, Upper Gundar, Therkar, Senkottaiyar, Sindapalli-Uppodai, Nishabanadhi, Kalingalar, Poiney and Koundinyanadhi in the **second Phase** during 2008-09. Further in the **third Phase**, the project was extended to 30 sub basins viz, Araniyar, Kosasthalaiyar, Ongur, Nallavur, Thurinjalar, Pambar to Thirukoilur, Gadilam, Markandanadhi, Kambainallur, Pambanar –Verattar, Gomukinadhi, Theniar, Girdhamal, Kanal Odai, Lower Gunder, Vembar, Uthirakosamangai, Palar, Sevalaperiar, Deviar, Nagarier, Vallampatti, Uppathur, Kovilar, Uppodai, Salikulamaru, Korampallam, Karumeniyar, Vaipar and Hannumannadhi during 2009-10, but started implementation during 2010-11. In the **fourth Phase**, the project was extended to 5 sub basins viz, Adayar, Cooum, Cheyyar-Kiliyar, Paralaiyar and Kayalkudiar for implementation during 2011-12. In the **fourth phase-2** the project was extended to one sub basin viz Amaravathi for implementation during the year 2012-13.

Due to implementation of this project for the past 3 years the total area expansion done under Horticulture crops is 21,264 Ha. and the financial achievement is Rs.3,458.399 Lakhs.

The project is coming to an end by 30th September 2014.

Progress of Schemes Implemented by TANHODA

Financial: Rupees in Lakhs

Sl. No.	Name of the Scheme	Unit	2013-14				2014-15	
			Physical		Financial		Target	
			Target	Achmt.	Target	Achmt.	Phy.	Fin.
1	Mission on Integrated Development of Horticulture National Horticulture Mission	Ha.	10,215	10,215	9,675.232	9,097.39	15,870	12,700.00
B	National Bamboo Mission	Ha.	0	0	0	0	310	186.029
2	National Mission on Micro Irrigation	Ha.	22,700	39,780	17,775.000	16,792.00	Subsumed under NMSA	
3	National Mission on Sustainable Agriculture Micro Irrigation under On Farm Water Management	Ha.	-	-	-	-	34,373	24,290.00
B	Rain fed Area Development	Ha.	-	-	-	-	3,120	1,041.665
4.	National Mission on Medicinal Plants	Ha.	7,480	7,480	1,026.939	1,026.939	8,232	1,323.075
5.	State Horticulture Farms	Lakh Nos.	189	179	1,986.861	1,616.45	200.24	2,079.43
6.	Tamil Nadu IAMWARMA	Ha.	7,500	7,408	1,350.590	1,314.241	-	-
TOTAL					31,814.622	29,847.02		41,620.199

128

on credit (or) cash basis to government institutions, Co-operative societies, Hospitals, factories, Clubs and Hotels.

5 a) Special Purpose Vehicle – for supply of quality Agricultural and Horticultural inputs and Water Soluble Fertilizers

Hon'ble Chief Minister for Tamil Nadu under Rule 110 during the Tamil Nadu Legislative Assembly on 06.05.2013 announced that a Special Purpose Vehicle will be established at the Commissionerate of Horticulture for assured and timely supply of quality inputs to the farmers under the various Agricultural and Horticultural schemes. Accordingly, orders were issued that TANHODA will serve as a Special Purpose Vehicle for procurement and supply of liquid fertilizers and seeds. An interest free amount of Rs. 50 Crores (Rupees Fifty Crores only) was released as revolving fund and deposited in the TANHODA SPV account. The Governing Council of TANHODA will act as Empowered Committee for the Special Purpose Vehicle. To assist the Empowered Committee, Two Technical Committees for purchase of Seeds and plants/ Manures and Fertilizers headed by the Additional Director of Horticulture have been constituted. From this year, Water Soluble Fertilizers and seeds will be procured through Special Purpose Vehicle, and supplied to the farmers in time.

130

5. TAMIL NADU HORTICULTURAL PRODUCERS CO-OPERATIVE ENTERPRISES LIMITED (TANHOPE)

To benefit small and marginal horticultural farmers in order to encourage Horticultural activities with good market linkage, Tamil Nadu Horticultural Producers Co-operative Enterprises Limited (TANHOPE) was registered in the year 1994 as a primary Horticultural Co-operative Society under Tamil Nadu Co-operative Societies Act 1983.

The area of operation of the institution is entire state of Tamil Nadu. The President is the head of TANHOPE and Joint Director of Horticulture is the Managing Director. So far 3,936 Horticultural crop growers have been enrolled in this society by paying Rs.100/- as share capital.

The main activity of TANHOPE is to supply inputs required for Horticulture schemes implemented by Department of Horticulture and Plantation crops. TANHOPE facilitates joint venture with private partners to help the farmer to market their produce and to get reasonable price. Procurement centres at Salem and Ottanchatram, procure and market fruits and vegetables to Ulavar sandhai, Government institutions, Co-operative societies, Hostels, etc.

The mandates of TANHOPE are to promote and encourage the development of Horticulture crops and to organize value addition and marketing of fruits and vegetables on modern lines by means of grading, sorting and standard packaging, marketing on Co-operative basis and marketing through retail outlets and branches to undertake export of fresh and processed produces. The most important activity is to supply horticultural produce

129

6. AGRICULTURAL ENGINEERING

1. Introduction

Soil and water conservation, Irrigation water management and Agricultural Mechanisation hold the key to achieve goals of the Second Green Revolution. The Agricultural Engineering Department, apart from promoting farm mechanisation, is engaged in the Soil Conservation, Development and Management of the agricultural land and water resources of the State. Ensuring "Water Security" by appropriate use of technology is the focus of the Department. Through integration of on farm development and micro irrigation, the department proposes to move towards saving every drop of rainwater, ensuring more crops per unit of water and adequate supply of water for agriculture. Water Management through on farm development and critical life supporting irrigation are the major strategies of the department contributing to the sustainable increase in agricultural production. Promoting agricultural mechanization to overcome the shortage of farm workers in the rural areas is accorded highest priority.

Agricultural Engineering Department is promoting value addition as a thrust area with an aim to increase farmer's income. The department is focusing on Infrastructure and strengthening of Post Harvest Management infrastructure for value addition of agricultural commodities like Chilly and Onion. Efforts are taken to minimize the Post harvest losses in Chilly and Onion by proper handling and management through Solar Chilly Drier and Onion storage structures. Further, the department has initiated action to promote use of non-conventional energy in Agriculture sector i.e., solar energy which is abundantly available in our State. In addition to Solar PV pumping system linked with micro irrigation farmers are encouraged

131