

2 Sectoral Profile

2.1 Agriculture

2.1.1 Tamil Nadu is an agrarian economy with a geographical area of 130 lakh ha. Tamil Nadu has 7% of the country's population but it has only 4% of land area and 3% of water resources of the country. Of the total Gross Cropped Area only 47% of the area is under irrigated condition. Around 52% of the area is under dryland farming. The fallow lands have increased from 17.6 lakh ha. in the 50's to 24.35 lakh ha in 2001-02 and it is hovering around 25 lakh ha in the recent years. The Gross Cropped Area which was 70.20 lakh ha (including area under Horticulture crops) during 1995-96 has come down to 63.38 lakh ha. in 2000-01 which further reduced to 58.89 lakh ha in 2004-05. The reasons attributed for the increase in fallow lands and reduction of gross cropped area are: urbanization and industrialisation, inadequate water availability and depletion of ground water, failure of monsoon rains, uncertainty in release of water in Cauvery and rising cost of cultivation, scarcity of agricultural labour and uneconomic returns.

2.1.2 The Land Use pattern in Tamil Nadu for the past 15 years is indicated below:

	Classification	1990-91	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05
1	Forest	21.6	21.4	21.34	21.3	21.31	21.2	21.22
2	Barren and unculturable land	5.1	4.9	4.76	4.77	4.78	5.09	5.09
3	Land put to non-agricultural uses	18.2	19.1	19.86	19.98	20.12	21.1	21.5
4	Permanent pastures and other grazing land	1.2	1.3	1.23	1.18	1.18	1.14	1.14
5	Cultivable waste	2.9	3.5	3.52	3.87	3.89	3.79	3.74
6	Land under miscellaneous tree crops and groves	2.3	2.2	2.55	2.71	2.77	2.83	2.9
7	Current fallow	12.7	12.9	11.34	10.26	15.02	9.54	6.92
8	Other fallow	10.5	11.3	12.28	14.09	14.91	18.6	17.04
9	Net Area Sown	55.8	53.5	53.03	51.72	45.9	46.9	50.97
10	Area sown more	10.5	9.3	10.35	10.54	6.01	6.27	7.92

	than once							
11	Gross cropped area	66.3	62.7	63.38	62.29	51.91	53.2	58.89
12	Cropping intensity	118.9	117.3	119.5	120.3	113.1	113	119
13	Total (geographical) area	130.2	130	129.9	129.9	129.9	130	130.3

2.1.3 The State had aimed at achieving 4% growth rate in Agricultural production during the Tenth Five Year Plan. The task becomes difficult in view of the following constraints.

- Erratic and inadequate monsoons leading to severe drought situation;
- Depletion of ground water;
- Uncertainty in release of water from Mettur reservoir;
- Deterioration of soil health;
- Increase in fallow lands.

2.1.4 The Agricultural performance during the past years is given below:

Crop	2000-01	2001-02	Tenth Plan			
			2002-03	2003-04	2004-05	2005-06 (Forecast)
Area coverage (L.Ha.)						
Paddy	20.80	20.60	15.17	13.97	18.73	21.63
Millets	7.33	7.06	7.12	9.03	8.24	10.12
Pulses	6.88	6.85	5.63	5.37	5.90	6.88
<i>Total foodgrains</i>	35.01	34.51	27.92	28.37	32.87	38.63
Cotton	1.69	1.64	0.76	0.98	1.29	1.41
Sugarcane	3.15	3.21	2.61	1.92	2.22	3.44
Oilseeds	8.39	7.80	5.93	6.96	7.15	8.16
Total	48.24	47.16	37.22	38.23	43.53	51.64
Production (L.MT.)						
Paddy	73.66	65.84	35.77	32.23	50.62	61.27
Millets	9.38	8.34	6.84	8.88	8.68	10.18
Pulses	3.13	2.71	2.00	2.01	2.16	2.69
Total foodgrains	86.17	76.89	44.61	43.12	61.46	74.14
Cotton	3.16	2.30	0.84	1.27	1.86	2.13
Sugarcane	33.18	32.61	24.16	17.66	24.46	38.03

Oilseeds	14.41	13.12	7.60	9.64	10.61	12.56
Productivity (Kg/Ha)						
Paddy	3541	3196	2359	2308	2703	2833
Millets	1284	1181	959	983	1053	1006
Pulses	454	395	356	374	367	391
<i>Total foodgrains</i>	2461	2228	1597	1520	1870	1919
Cotton	316	238	188	213	244	257
Sugarcane	10525	10155	9244	9192	11018	11055
Oilseeds	1717	1684	1282	1385	1484	1539

Crop Prospects for 2006-07:

2.1.5 The torrential rain received in four spells in the North East Monsoon during 2005, though caused floods and damaged the crops to the tune of 4.91 L.Ha. had largely helped to recharge the ground water besides increase in storage position in the reservoirs and tanks to a comfortable level. A favourable agricultural year is anticipated during 2006-07 in view of:

- Release of water from the Mettur reservoir on the scheduled date 12th June 2006 for Kuruvai cultivation in delta districts.
- Waiver of the farm loans to the tune of around Rs.7000 crore.
- Allocation and release of Rs.1000 crore for extending crop loans for kuruvai as 1st installment.
- Comfortable storage in the major reservoirs.

2.1.6 The enthusiasm among the farmers and the above favourable conditions are the backdrop for the target for the area and production of agricultural crops for the year 2006-07, which is proposed as below:

Crop	Area (L.Ha.)	Production (L.MT)
Paddy	21.70	78.10
Millets	10.50	13.65
Pulses	7.50	3.60
Total foodgrains	39.70	95.35
Oilseeds	10.00	17.00
Cotton (L.Bales)	2.00	3.80
Sugarcane (Gur)	3.30	39.60

2.1.7 To achieve the above goal, the following strategies are proposed during 2006-07.

Strategies and Programmes for 2006-07

- Conduct of intensive pre-season campaign for one month each for Kharif and Rabi prior to peak sowing season to provide technologies.
- Bringing every piece of cultivable land under cultivation and to bring considerable area of fallow lands under cultivation.
- Timely stocking and distribution of quality inputs and special thrust to achieve enhanced SRR.
- Bringing more area under contract farming to ensure remunerative prices.
- Involving Tamil Nadu Women in Agri Business and Extension (TANWABE) groups in extension activities, seed production and distribution and seedlings production.
- Involving select TANWABE groups to establish Biocontrol Agents Production centres, Mini Soil Testing Laboratories and owning agricultural machineries for hiring activities.
- Effective use of Information and Communication technology in Agriculture for speedy transfer of information like technology, weather forecast, Market trend and assistance extended to farmers through various Government schemes.
- Promotion of Jatropha and establishing proper linkage with the industrial entrepreneurs.
- Formation of more Farmers Interest Groups (FIGs) and federating them upto State Level. Involving them in extension and planning activities.
- Implementation of programmes under Rainfed Mission by establishing Model Water Conservation Park at Annapannai, establishment of Rainfed Academy, establishment of Nuclear watersheds and training programmes.

- Intensifying crop diversification activities.
- Promotion of micro irrigation in large extent under coconut, pulses, groundnut, oilpalm and horticultural crops.
- Special programmes for coconut development and assistance to farmers for area expansion and productivity increase.

Major Schemes

2.1.8 The following major programmes will be implemented for extending assistance to the farmers to get higher production.

State Schemes:

Sl.No.	Scheme / Component	Programme for 2006-07
1.	Production and Distribution of Quality seeds (MT)	
	a) Paddy	17000
	b) Millets	400
	c) Pulses	1600
	d) Oilseeds	4500
	e) Cotton	250
2.	Production and distribution of Green Manure seeds (MT)	250
3.	Bio fertilisers (MT)	1400
4.	Micro Nutrients (MT)	1400
5.	Production and distribution of quality coconut seedlings (L. Nos.)	
	a) Tall	6.41
	b) Tall x Dwarf	4.10
	c) Dwarf x Tall	0.30
6.	Distribution of Pleurotus kits for composting of farm waste	2000 kits
7.	Training on Vermicompost Production	5000 farmers

Centrally Sponsored Scheme

2.1.9 Under Centrally Sponsored schemes, crop oriented development programmes are proposed to be implemented by providing subsidy to the farmers to enable them to adopt latest technologies. In each scheme, the assistance is extended for production and distribution of seeds, distribution of biofertilisers, micro nutrient mixtures, gypsum in case of

groundnut and pulses, bio pesticides, weedicides, Plant Protection equipments, drip and sprinkler sets, demonstration on latest technologies, farmers training etc.

Centrally Sponsored Scheme

SI No.	Scheme / Component	Financial Outlay for 2006-07 (Rs. in lakh)
I.	Macro Management Mode Schemes	
1.	Cereal Development Programme	459.150
2.	Sugarcane Development Programme	32.310
3.	Balanced and Integrated Use of Fertilisers	95.200
4.	Innovative schemes	
	a) Farmers Interest Group	60.000
	b) Tamil Nadu Women in Agri Business and Extension	291.790
	c) Demonstration on Drip fertigation in sugarcane	119.460
	d) Promotion of sugarbeet	5.000
II	Integrated Scheme for Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)	
1.	Oilseeds	1111.378
2.	Pulses	603.399
3.	Oil Palm	450.307
4.	Maize	66.000
III	Integrated Cotton Development Programme under Mini Mission II	419.817
IV	Coconut Development Board Scheme	286.00

2.1.10 Schemes such as Multiplication and distribution of paddy, millets and pulses, preparation and distribution of Micronutrients, Intensive Cotton Development, Coconut Development Programme, Farmers' Training Centre are being implemented with State funds. Some of the major Centrally sponsored schemes which are being implemented are Integrated Cereal Development Programme for Rice, Millet, and Oilseed Production Programme, Pulses Development Programme, Intensive Cotton Development Programme, etc.

Horticulture

2.1.11 Tamil Nadu is one of the leading horticulture States in India contributing 7.6 per cent to the National Horticultural production with 5.4 per

cent of the national level area. Tamil Nadu has been blessed with diversified agro-climatic conditions, suitable for a wide range of horticulture crops like fruits, vegetables, spices, plantation crops, flowers and medicinal plants.

2.1.12 A large extent of wastelands and under-utilized lands are available in the State for horticulture development. Tamil Nadu has a long coastal belt of 1000 km. suitable for crops like cashew, coconut, tropical orchids etc. The southern part of Tamil Nadu has the potential for growing off-season mangoes and grapes.

2.1.13 A lot of awareness has been created among the farmers of Tamil Nadu about cultivation of high value horticulture crops. It is aimed to achieve 8 per cent annual growth rate during X Five-Year Plan in the horticultural sector and doubling the production at the end of the 11th five year plan period i.e. 2011-12.

(Area: Lakh Ha., Production: Lakh MT., Productivity: MT/Ha.)

Sl. No.	Crops	2004-05 (Actual)			2005-06 (Provisional)			2006-07 (Estimated)		
		Area	Prodn.	Pvty.	Area	Prodn.	Pvty.	Area	Prodn.	Pvty.
1	Fruits	2.36	44.99	19.06	2.55	48.56	19.07	2.75	52.43	19.07
2	Vegetables	2.15	63.08	29.34	2.32	68	29.33	2.5	73.32	29.33
3	Spices	1.43	8.05	5.63	1.54	8.58	5.64	1.66	9.37	5.64
4	Plantation Crops	2.36	8.08	3.42	2.49	8.3	3.23	2.64	8.54	3.23
5	Flowers	0.23	1.87	8.13	0.25	2.02	8.11	0.27	2.19	8.11
6	Medicinal Plants	0.05	0.10	2.00	0.06	0.11	2.00	0.06	0.12	2.00
	Total	8.58	126.17	14.71	9.21	135.57	14.77	9.88	145.97	14.77

Policy Focus for 2006-07

- Thrust on Hi-Tech Horticulture and precision farming.
- Expansion of area under micro-irrigation and fertigation.
- Stabilizing the area of water loving crops and expanding the area under dry land crops with a focus on effective water management.

- Strengthening the system of production of pedigree and hybrid planting materials in both public and private sectors.
- Promotion of Organic farming with focus on export market.
- Promotion of Agri Export Zones (AEZ) for specified crops.
- Building up of Public and Private Partnership.
- Promotion of Contract / Corporate farming.
- Empowerment of farmers with special focus on farmwomen.
- Effective transfer of technologies by tour-cum-training to farmers.
- E-Governance and Human Resources Development through effective training for extension officers.
- Linkage with Agro Processing Industries.
- Post harvest management and reduction of post harvest losses.

2.1.14 Recognizing the fact that horticulture would be the growth engine of Agriculture, the State has set up a **Mission for Horticulture Development in Tamil Nadu**, to give impetus for cultivation, processing for value addition and marketing of vegetable, fruits and flowers in the State. Thirteen districts have been selected for the implementation of National Horticulture Mission, viz. Coimbatore, Erode, Salem, Dharmapuri, Krishnagiri, Cuddalore, Madurai, Theni, Dindigul, Tiruchirapalli, Sivagangai, Tirunelveli and Ramanathapuram. Further, a detailed proposal has also been sent to Govt. of India for extending the above project in the following five districts. viz. The Nilgiris, Pudukkottai, Perambalur, Thoothukudi and Virudhunagar.

2.1.15 The mission aims at improving production through balanced nutrition management, evolving suitable mechanism for regulating the production of quality planting materials and giving impetus to need based research, establishing adequate infrastructure for post harvest management especially preservation and marketing, encouraging active involvement of Farmers' Associations in adoption of modern technological practices. The Tamil Nadu Horticulture Development Agency (TANHODA) will act as a special purpose vehicle for implementing National Horticulture Mission, Micro

Irrigation Project of Govt. of India and Govt. of Tamil Nadu schemes and programmes.

2.1.16 Horticulture development is taken up through programmes such as Integrated Horticulture Development scheme (IHDS)(proposed outlay of Rs.876.54 lakh), Integrated Tribal Development Programme (ITDP) (proposed outlay of Rs.40 lakh), Western Ghats Development (WGDP) (proposed outlay of Rs.150 lakh) and Hill Area Development Programme (HADP) (proposed outlay of Rs.275 lakh). Besides, Integrated Programme for Development of Cashew, Integrated Programme for Development of Fruits, Integrated Programme for Development of Spices, and Integrated Programme for Development of Vegetables including Root and Tuber crops, Integrated programme for Development of Medicinal and Aromatic Plants, Development of Cocoa, Floriculture, Mushroom cultivation are being implemented as State and Centre shared schemes.

2.1.17 The Tamil Nadu Precision Farming Project was sanctioned with an outlay of Rs.992.95 lakh for implementation in 7 more districts in Tamil Nadu viz:- Theni, Vellore, Erode, Madurai, Thirunelveli, Kancheepuram, and Thiruvallur. 105 ha will be covered in each district and a total of 735 ha will be cultivated.

2.1.18 As against the outlay of Rs. 32214.9 lakh for Crop Husbandry sector for 2005-06, an amount of Rs.16121.16 lakh is expected to be spent. The agreed outlay for 2006-07 is Rs. 9725.08 lakh. Of this, an amount of Rs.1742.47 lakh and Rs.43.74 lakh is set apart for Scheduled Caste Sub Plan and Tribal Sub Plan respectively.

2.1.19 ***Agricultural Research and Education*** is an essential prerequisite for agricultural development. The new research paradigm will revolve around sustainability of biophysical resources, conservation of bio-diversity, strengthening of infrastructure, development of novel products of international standards, perfect bio-security measures to curb economically important pest and diseases. In this transformation process, the role of Research Institutions like the Tamil Nadu Agricultural University and the Tamil Nadu Veterinary and Animal Science University is very crucial.

2.1.20 The Tamil Nadu Agricultural University has been constantly orienting its activities on agricultural education, research and extension towards the goal of maintaining the tempo of self sufficiency in food production and exploring the agricultural potential of the State for export of agricultural produce and thus improves the Rural Tamil Nadu.

2.1.21 Research work in 2006-07 will be focused on the following lines:

- To develop rice hybrids with acceptable grain quality with in built resistance for biotic and abiotic stress.
- Development of hybrids on various vegetable crops with superior consumer preference.
- Cotton hybrids with resistance to bollworm.
- Maize hybrids with downy mildew resistance.
- Sunflower hybrids with high oil content and sunflower necrosis virus disease.
- Drought and mosaic resistant green gram, black gram.
- In Horticulture and Forestry, work will be concentrated to identify and multiply suitable fruit, timber, and non-timber species for growing in wastelands since wasteland constitutes major area of arable land.
- Medicinal plants will be given special attention. In addition to standardization of cultural techniques for important medicinal plants, the identification and extraction of alkaloids and secondary metabolites will be taken up.
- Standardization of agro techniques for growing biofuel-yielding trees like jatropha, sweet sorghum, sugarbeet, pungam etc, and development of technique for efficient extraction of oils from such crops.
- Developing alternative cropping strategies for various agro-climatic zones of Tamil Nadu.

- Developing suitable strategies for doubling the crop yields in the State.
- Developing Good Agricultural Practices (GAP) for horticulture crops.
- Drip fertigation for widely spaced crops like coconut, sugarcane, banana, cotton, maize and other horticulture crops.
- Promotion of organic farming in agricultural and horticulture crops for export and also for domestic market.
- Maximising the rice yield in rainfed areas, documentation of low cost and no cost agro technologies of dry tracts.
- Possibilities for redistributing wastelands to rural landless labour and their implications for income and employment.
- Designing policies for effective provision of cheaper credit for agriculture sector.
- TNAU will coordinate the preparation of 'Strategic Research and Extension Plan' (SREP) in 9 districts of the State.

2.1.22 The main mandate of the Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) is to impart education in different branches of Veterinary, Animal Sciences and Fisheries Sciences, prosecution of research and undertake extension. The research findings of this University have a direct bearing on the farmers and enable them to enhance their production and income. Research encompasses cattle, buffaloes, pigs, sheep and goat, poultry, pet animals and fish and various aspects of management, nutrition, diagnosis, prevention and control of diseases, production of diagnostic kits and vaccines and development of products from livestock and fishes.

2.1.23 As against the outlay of Rs. 5045.27 lakh for 2005-06 for the Agricultural Research sector, an amount of Rs.6191.9 lakh is expected to be spent. The agreed outlay for 2006-07 is Rs. 9795.74 lakh .

Agricultural Marketing and Quality Control

2.1.24 The prime objective of the Department of Agricultural Marketing & Agribusiness is to help the farmers in marketing their agricultural produce in a fair manner and to ensure remunerative returns to them. The objective is being achieved by regulating the agricultural produce trade as per the act "Tamil Nadu Agricultural Produce Marketing (Regulation) Act 1987". This department is also focusing on the other related activities like creation of modern marketing infrastructures, post harvest management, food processing, agri exports, which indirectly help the farmers to realize better returns.

2.1.25 There are 273 Regulated Markets, 15 Sub-Markets, 16 Check posts, 108 Rural Godowns and 108 Grading centres functioning under 20 Market Committees. Competitive and remunerative prices are ensured for the produce sold by the farmers through closed tender system in the Regulated Markets. 40 agricultural commodities like cereals, pulses, oilseeds, cotton, turmeric etc have been notified. To help the producers to get better price for the produce according to their grades, 96 Commercial Grading Centres, 11 Kapas Grading Centres and 1 Tobacco Grading Centre are functioning in the Regulated Markets.

2.1.26 The strategy of the Agricultural Marketing and the measures taken are as follows:

- Enhancing marketability of Agri commodities, by providing necessary Infrastructural facilities.
- Preventing the wastage through post harvest facilities.
- Provision of backward and forward linkages through marketing; agro processing, port and contract farming.
- Educating the farmers on marketing practices - with extension network.
- Better realization to agri produce through alternative markets like product - wise Terminal Markets/Mega Markets.

- Revamping Regulated Markets with structural changes in the existing system.
- Stepping up export of agri / horti produce - with setting up of AEZ and establishment of Food Parks.
- Commercialization of agriculture - market driven approach.
- Policy interventions to attract private sector into storage and agro processing industries.
- Integrated approach - from planting to marketing - which includes choice of crops, grading, packaging, storage and marketing in domestic and international markets.

Measures taken

Infrastructure Creation

2.1.27 Required infrastructure like transaction sheds, input shops, godowns, office cum godowns, payment counters, rest sheds, drinking water facility, sanitary facilities etc are being created in the regulated markets year by year in a phased manner to enhance the facilities to farmers and traders which will ensure better marketability of agricultural produce. During the year 2005– 2006, Rs. 16.14 crore has been spent towards creation of above such infrastructures in the regulated markets.

Post harvest management

2.1.28 In Tamil Nadu there are about 133 cold storage units with a combined capacity of 1.00 lakh MT. Taking into account the present production of fruits and vegetables and projected future production it is estimated that the State would be requiring cold storage units with capacity of another one lakh MT in the next five years. This department has identified 15 potential places in the State and proposals sent to Government to establish integrated cold chain at a total cost of Rs.41.95 crore through Public Private Participation mode with financial assistance from National Horticulture Board and RIDF.

Construction of Drying Yards in the Villages

2.1.29 In order to help farmers to minimize the post harvest losses in grains, the department has taken up construction of drying yards at village

level. Under this scheme, so far 1130 drying yards have been constructed at a total cost of Rs.20.95 crore.

2.1.30 Locating suitable site in villages for putting up drying yards takes longer time and hence it is considered that mechanical or solar driers can be installed in villages for drying commodities like chillies, pulses, cereals etc. On a trial basis solar driers have been installed in Surandai and Naduvayal villages of Thirunelveli District at a total cost of Rs.19.00 lakh under World Bank sponsored programme. Based on the response it is proposed to install solar driers in some more needy villages.

Product specific markets

2.1.31 At Madurai, a market complex is being established exclusively for paddy at a total cost of Rs.12.60 crore. This market complex will cater to the marketing needs of paddy growing farmers and traders. In this market complex 314 shops have been built out of which 143 shops for paddy, 54 shops for input shops, 100 shops for flower and 17 shops for providing facilities like office, post office, telephone exchange, canteen, cooperative store have been allotted. So far 127 shops to paddy merchants and 44 shops to input merchants have been handed over. Action is underway to hand over the remaining shops.

2.1.32 Another Market Complex for Turmeric at a total cost of Rs.36.32 Crore is to be established near Erode town. A mega wholesale market for fruits and vegetables at a total cost of Rs. 245.20 lakh is being established at Oddanchatram of Dindigul district.

Agricultural Production And Marketing Information Centre

2.1.33 Market intelligence plays a vital role in marketing of agricultural produce. If information on commodity prices in various markets, demand in various markets etc. were made available, the farmers could plan in advance the crops to cultivate and decide the market to sell their produce in order to get better returns. Taking this objective into consideration, Agricultural Production and Marketing Information Centre has been established in fourteen Regulated Markets at a cost of Rs.45.00 lakh. Based on the success

and usefulness of the facility to the farmers, this scheme will be further expanded.

2.1.34 The above centres will have Internet facility and electronic display board. The daily price and arrivals that prevail in different regulated markets will be transmitted to all information centres which will be displayed in the electronic display boards for the benefit of farmers and traders.

Agro food processing

2.1.35 Food Processing Industries provide vital link between farm and industry which accelerates overall agricultural growth, adding value to the produce, generating employment opportunities and ensuring assured income to the farmers. While in India, only 2% of the total horticultural produce is processed in developing countries like Philippines, Brazil it is in the range of 50% and 70%. Considering the rising demand for good quality processed products, there is an urgent need to enhance capacities for value added and processed products in our country. At present, value addition is estimated at 7% of the total production and within next 5 years, there is a need to increase value addition to 20% and processing at 7% in order to reduce the post harvest wastage and to gain advantage in both domestic and international markets. Tamil Nadu with varied agro climatic zones can produce almost all the commodities and thus there is vast scope for setting up of Food Processing Industries in Tamil Nadu. In view of this the Department of Agricultural marketing & Agri business is actively taking the following measures to popularize food processing in the state.

2.1.36 This department is acting as State Nodal Agency of Ministry of Food Processing industries, Govt. of India from July 2002. Project proposals for setting up new food industries and expansion and modernisation are scrutinized, recommended and forwarded to the Ministry of Food Processing Industries for subsidy. So far 359 proposals received from food processing industries for grant have been recommended to the Ministry. The Ministry has cleared 152 proposals and sanctioned grant to the tune of Rs.31.20 Crore. In total 207 proposals are under the consideration of the Ministry of Food Processing Industries, Government of India.

2.1.37 Further a Directory of Food Processing Industries in the State has been prepared. A data bank on area and production of various agricultural commodities including fruits and vegetables, wholesale markets etc. is maintained in this department. These particulars are given to the entrepreneur, who intends to establish Food Processing industries in the state.

Food Park

2.1.38 Food Parks with common processing facilities enable small entrepreneur, small-scale industries and even farmers to take up food processing without much capital investment. A Food Park in private sector at Aruppukottai has already been established with assistance from MFPI, GOI.

2.1.39 Another Food Park at a total cost of Rs.13.00 Crore with assistance from the MFPI is proposed at Nilakkottai Industrial Estate of Dindigul District as a Joint venture of Tamil Nadu State Agricultural Marketing Board (TANSAMB) and State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT).

2.1.40 Maagrita Exports Ltd. the service provider of AEZ Mango has taken possession of 8.58 acres of land in the Food Park and created facilities like pack house, fruits and vegetables dehydration unit and fruit processing unit at a cost of Rs.16.00 Crore.

2.1.41 The Ministry of Food Processing Industries has sanctioned a grant of Rs.3.25 crore for the above Food Park as grant. Private consultant has been appointed to establish cold storage, aseptic packing and spray drying unit as common facility.

Food Processing Training Institute At Salem

2.1.42 It is considered essential to upgrade the skills of the employees currently working in food processing industry mostly in unorganised sector. It is proposed to establish a Food Processing Training Institute at Salem at a total cost of Rs.1.98 crore with assistance from MFPI, GOI. The proposal has been sent to the Ministry of Food Processing Industries, GOI for sanction of grant and order is awaited.

Agri Export Zones

2.1.43 In a competitive Global Trade Scenario, with a view to provide remunerative returns to the farming community in a sustained manner, efforts are made to provide improved access to the produce / products of the Agriculture, Horticulture and allied sectors in the global market by setting up of Agri Export Zones. The concept of AEZ attempts to take a comprehensive look at a particular Agriculture / Horticulture produce located in contiguous area for the purpose of developing and sourcing the raw materials, their processing, packing, leading to final exports.

2.1.44 An Agri Export Zone has been established exclusively for cut flowers at Hosur in Dharmapuri district at a project cost of Rs.24.85 crore. TANFLORA, a Joint venture company of TIDCO provides infrastructure facilities like common processing unit, common marketing and leasing the lands for floriculture units. All infrastructure works have been completed and export has commenced from this zone.

2.1.45 Agri Export Zone for flowers in The Nilgiris is being established with participation from a private entrepreneur at a project cost of Rs. 15.89 crore. Infrastructure facilities like cold storage, refrigerated vans, common marketing facility, etc., would be created very soon.

2.1.46 Another Agri Export Zone exclusively for mango has been established in Theni district with private sector participation at a project cost of Rs.24.60 crore covering the districts of Theni, Dindigul, Madurai, Virudhunagar, Tirunelveli and Kanniyakumari. Facilities like pack house, fruits and vegetables dehydration unit, fruit processing unit etc have been created in the Food Park at Nilakottai.

2.1.47 It is proposed to establish an Agri Export Zone exclusively for cashew at Cuddalore district with private sector participation at a project cost of Rs. 10.36 crore. Another Agri Export Zone exclusively for banana in Tiruchirappalli District with private sector participation at a project cost of Rs. 10.00 crore is proposed to be established. Necessary proposals have been sent through Government of Tamil Nadu to Agricultural and Processed Food Products Exports Development Agency (APEDA) for approval for these AEZs.

2.1.48 Further proposals to establish AEZ for Grapes at Theni, Turmeric at Erode, Medicinal Plants at Tuticorin District, Onion at Coimbatore and Dindigul Districts are under consideration.

2.1.49 Unavailability of market intelligence to the farmers is a major reason for wide differences in the prices realized by the farmers in different markets. Therefore it is proposed to provide necessary market intelligence service to the farmers along with production strategy through TNAU.

2.1.50 During 2006-07, it is proposed to set up Terminal Market Complex for fruits, vegetables, and other perishable in selected metro regions of Chennai, Coimbatore and Madurai. It is also proposed to create a export marketing complex and cold storage facilities for export quality grapes in Odaipatti in Theni District.

Seed Certification

2.1.51 Seeds are the basic input for increasing agricultural productivity. Quality seed, forms the basis to produce quality output. For protecting the farming community, a strong seed certification programme and a quality control mechanism are a must.

2.1.52 The following strategy is enunciated during the Tenth Plan Period under Seed Certification:

- Increasing the production of certified seed to maintain the quality of produce.
- The GOI formulated 'National Seeds Policy 2002'. To fulfill the aims and objectives of National Seed Policy 2002 and to safeguard the interest of Tamil Nadu farming community it is the need of the hour to evolve 'Exclusive Seed Policy' for Tamil Nadu. Exclusive Seed Policy for Tamil Nadu will lead to increased certified seed production and more intensive seed quality control measures to protect the interests of the farming community.
- Improving the storage facilities to preserve the guard samples for a long period.

- Ensuring quality of certified seed distribution among the farming community by strengthening the seed inspection wing of the department.

2.1.53 The Department of Seed Certification is implementing activities such as Seed Certification, Seed Inspection, Seed Testing and Training in order to make available quality seeds to the farming community. An area of 36,240 ha was registered under seed certification as against the target of 37,500 ha. Similarly, 55,215 number of seed samples were tested as against the target of 65,000 seed samples during 2005-06.

2.1.54 As against the outlay of Rs.19.26 lakh for Agriculture Marketing sector for 2005-06, an amount of Rs.18.23 lakh is expected to be spent. The agreed outlay for 2006-07 is Rs. 473.30 lakh.

Soil and Water Conservation

2.1.55 In a predominantly agricultural system, the objective of improving the productivity, profitability and prosperity of the farmers and achieving agricultural development on an ecologically sustainable basis can be attained only when conservation, development and management of the land and water resources are assured. The strategy in this regard are as follows:

- Conservation, upgradation and utilisation of natural endowments like land, water, vegetation, animal and human resources in a harmonious and integrated manner.
- Minimising the risk and uncertainty involved in dry land agriculture by water security for improving the productivity of agricultural crops and conserving the basic resources of soil and water in selected watersheds.
- Augmenting the water resources for drinking water purposes for the human population and cattle both by surface storage and by groundwater storage.
- To maintain the beneficial relationship between land and water cycle by arresting soil erosion and harvesting water to improve the production of the dry land agriculture.

- To promote social forestry and horticultural activity on all suitable lands.

2.1.56 The Watershed approach has been found useful in helping to reduce degradation, expedite the process of development and in the conservation of land, water and vegetation in an integrated manner. With the average annual rainfall of 976.6 mm as only source of water, in the absence of any perennial source of water and in the backdrop of having exhausted almost all irrigation potential in the State, the strategies available for sustainable water management are:

- Rain water harvesting for ground water recharge to stabilize drinking water and irrigation wells.
- Scientific use of water in canal irrigated areas and reduction of water loss.
- Rehabilitation of water bodies.
- Introduction of water saving irrigation methods like Drip and Sprinkler Irrigation on a large scale.
- Construction of Community Wells to promote conjunctive use of surface and ground water.

2.1.57 Soil Conservation schemes are implemented with the main objective of preventing degradation of dry land, rain water in-situ harvesting, improving the productivity and utilizing them profitably on a sustained basis. Soil and Water conservation works such as contour bunding, check dams, contour ploughing, deep ploughing, farm forestry, afforestation etc. in plains and bench terracing, contour stone wall etc in hills are taken up under these schemes. Major soil conservation schemes implemented in the State are Soil conservation in Hills and plains, WGDP, HADP, Soil Conservation in Tribal Areas, Soil and Water Conservation in Vaigai River Valley Catchments, Soil Conservation Works in the Catchment Area of Kundah and Lower Bhavani River Valley Project and Soil and Water Conservation Scheme in Mettur Stanely Reservoir.

2.1.58 The Government of Tamil Nadu announced a massive Wasteland Development Programme during 2001-02 to reclaim 20 lakh ha over a period of 5 years. This programme has two component viz:- 1) Participatory Watershed Development (in patta lands of the farmers) and Development of Government wasteland by Corporate Houses, Small Companies, Cooperatives, SHGs and Federation of SHGs etc., The progress made under the programme are:

Year	Target (Ha.)	Acht (Ha.)	No.of beneficiaries	No. of watershed	Financial Acht. (Rs. in lakh)
Patta Wasteland					
2002-03 to 2005-06	2,25,000	1,70,646	1,18,176	1985	8,082.40

2.1.59 A total extent of 1073.12.0 ha of Government wastelands was leased out during 2002-03 to 2005-06. Under Centrally Sponsored National Watershed Development Project for Rainfed Areas (NWDPR) as against the target of 1.56 lakh ha to covered, an area of 1.17 lakhs ha was covered during 2002-03 to 2005-06.

2.1.60 *Soil Testing-* There are 19 Soil Testing Laboratories and 16 Mobile Soil Testing Laboratories functioning in the State with an annual analyzing capacity of 7.30 lakhs and 2.20 lakhs of soil samples respectively. There are 14 Fertilizer Control Labs (FCL) with an annual analysing capacity of 17820 samples and 9 Pesticides Testing Laboratories with an annual capacity of 16236 samples which is the highest capacity compared to any other State in the country. This serves as an evidence for the importance given to quality control of both fertilizers and pesticides by the State.

2.1.61 As against the outlay of Rs.7055.93 lakh for Soil Conservation and Soil Testing Sector for 2005-06, an amount of Rs.4601.86 lakh is expected to be spent. The agreed outlay for 2006-07 is Rs.8795.27 lakh.