

### 3. AGRICULTURE

Agriculture which continues to be the back bone of the economy contributes about 15 per cent of the State Income and supports 60 per cent of the work force. Even in the process of structural transformation of the economy agriculture determines the overall growth process with strong linkages to the manufacturing sector.

#### 1. Land Use Pattern:

Land use pattern in the State is witnessing significant changes. An analysis done covering a period of 25 years (1977-2003) capture the shift taking place in this regard. During triennium ending 1979-80, the net sown area stood at 48.15 per cent, followed by forest (15.58%), land put to non-agricultural uses (12.94%) and current fallows (9.67%). The corresponding figures for the triennium ending 2002-03 were 38.65, 16.42, 15.39 and 9.40 per cent, respectively. It may be mentioned that the net area sown has been declining over a long span of time mainly due to conversion of agricultural land for non-agricultural uses such as housing and industrial sites. Besides, the share of permanent pasture and other grazing lands dwindled from 1.27 per cent to 0.92 per cent. The salient features of the land use pattern are presented below.

**Table - 1: Land Use Pattern**

(Area in 000 Ha.)

Sl. No.	Classification	Average Area T.E.1979 - 80	%	Average Area T.E.1999 - 2000	%	Average Area T.E.2002 - 03	%
1	Forests	2025	15.58	2138	16.45	2133	16.42
2	Barren and Unculturable land	610	4.69	478	3.68	477	3.67
3	Land put to non-agricultural uses	1682	12.94	1966	15.13	1999	15.39
4	Culturable Waste	351	2.70	347	2.67	376	2.89
5	Permanent Pastures and other grazing lands	165	1.27	123	0.95	120	0.92
6	Land under miscellaneous tree crops and groves not included in the net area sown	195	1.50	238	1.83	268	2.06
7	Current fallows	1257	9.67	1008	7.76	1221	9.40
8	Other Fallow Lands	456	3.50	1137	8.75	1376	10.59
9	Net area sown	6259	48.15	5560	42.78	5022	38.65
10	Total geographical area	13001	100.00	12996	100.00	12991	100.00

Note: T.E. – Triennium ending.

Source: Season and Crop Reports of Various Years, Directorate of Economics and Statistics, Chennai-6.

#### 2. Distribution of Farmers by Size of Holdings:

Agricultural Census presents data on number of cultivators and area operated reveals asymmetrical distribution of land holdings - 64.65 per cent of marginal farmers possessed an area of 21.07 per cent in 1996-97. In 1995-96 the corresponding figures are 74.28 per cent and 30.27 per cent. If the data are put in terms of *Lorenz Curve*, the *Gini Co-efficient* would be higher indicating that the inequalities in land distribution are more pronounced.

**Table - 2: Agricultural Census**

Category of operational holdings	1976-77		1985-86		1995-96	
	No.	Area	No.	Area	No.	Area
Marginal (Below 1.0 Ha.)	3951175	1607533	5497735	2017615	5951104	2210343
Small (1.0 to 2.0 Ha.)	1125740	1586429	1260306	1771545	1233836	1721288
Semi-medium (2.0 to 4.0 Ha.)	683086	1875796	648822	1778376	600833	1622811
Medium (4.0 to 10.0 Ha)	305496	1763039	260645	150987	199791	1134853
Large (10.0 Ha.& above)	46056	795663	39215	720418	26268	613910
<b>Total</b>	<b>6111553</b>	<b>7628460</b>	<b>7706723</b>	<b>7795941</b>	<b>8011832</b>	<b>7303201</b>

Source: Directorate of Economics and Statistics, Chennai 6.

### 3. Area, Production and Yield:

The major crops being cultivated are paddy, millets, pulses, oilseeds, cotton and sugarcane. Food grains have had a dominate share of crops cultivation in the State. Gross cropped area and production of principal crops is influenced by the spatio-temporal distribution of rainfall primarily during the north-east monsoon and the south-west monsoon periods.

Owing to occurrence of droughts for three years in a row, the area brought under total foodgrains recorded a fall in terms of area, production and yield rate during 2002-03. Area under total foodgrains decreased from 34.52 lakh hectares in 2001-02 to 27.92 lakh hectares in 2002-03. Total foodgrains production plummeted from 76.89 lakh tonnes in 2001-02 to 44.59 lakh tonnes in 2002-03. The yield rate of foodgrains decreased from 2228 kgs. to 1597 kgs. the area under paddy crop had declined from 20.60 lakh hectares in 2001-02 to 15.17 lakh hectares in 2002-03. A dip in the area got reflected in the production of paddy. The total paddy production drastically tumbled to 35.77 lakh tonnes in 2002-03 from 65.84 lakh tonnes in 2001-02 the decline being 45.6 per cent. In sympathy with decline in area and production, the yield rate of paddy had also dipped by 26.2 per cent from 3196 kgs. in 2001-02 to 2359 kgs. in 2002-03.

**Table - 3 : Area, Production and Yield Rate of Principal Crops**

Crops	Area (Lakh ha.)		Production (Lakh tonnes)		Yield Rate (Kgs. / ha.)	
	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03
Paddy	20.60	15.17	65.84	35.77	3196	2359
Millets	7.06	7.12	8.34	6.81	1181	956
Pulses	6.85	5.63	2.71	2.00	395	356
Food grains	34.52	27.92	76.89	44.59	2228	1597
Oilseeds*	9.58	5.92	14.35	7.60	1498	1284
Cotton@	1.64	0.85	2.30	1.53	238	189
Sugarcane\$	3.21	2.50	32.61	27.24	10155	9244

\* - includes groundnut, gingelly, castor and sunflower @ - in lakh bales of 170 kgs, of lint each

\$ - in terms of gur.

Source: 1. Directorate of Economics and Statistics, Chennai-6.

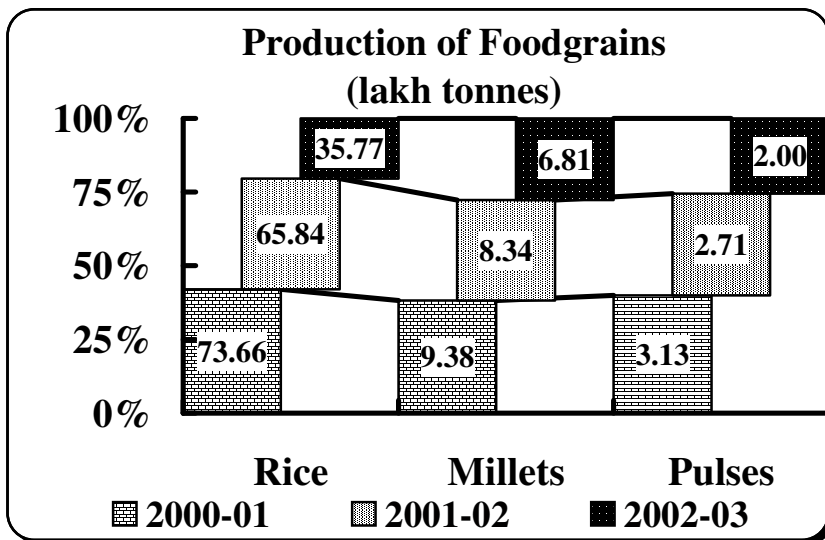
2. Commissioner of Agriculture, Chennai-5.

### 3.1. Area:

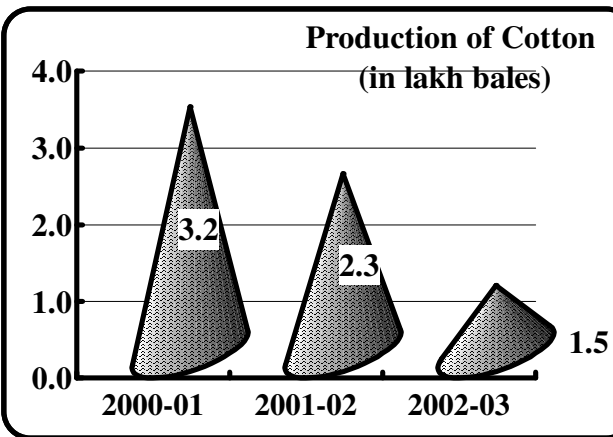
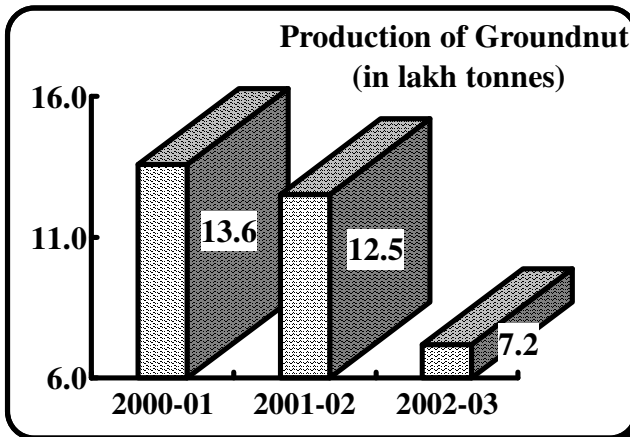
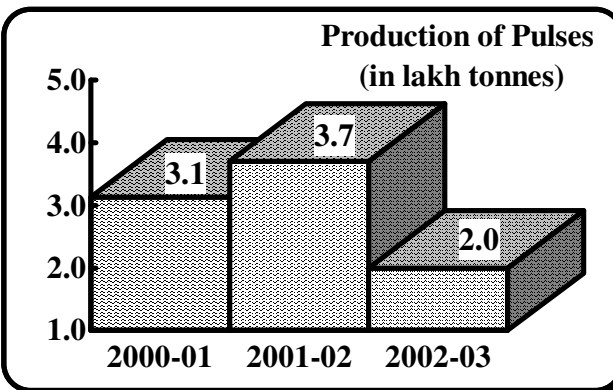
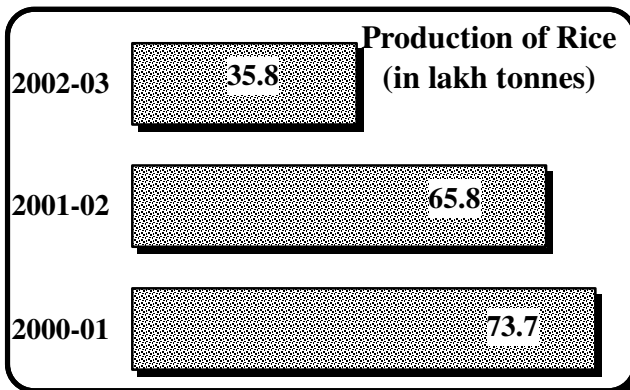
Paddy is the staple food crop grown extensively in the rice bowl of the State namely the Cauvery delta districts viz., Thanjavur, Thiruvaur and Nagapattinam. Of the total area under food grains, the share of area under paddy had come down from 60 per cent in 2001-02 to 54 per cent in 2002-03. The area under food grains had declined by 19.1 per cent from 34.52 lakh hectares in 2001-02 to 27.92 lakh hectares in 2002-03. Like-wise the total area under cotton, oilseeds and sugarcane except coarse cereals had witnessed a fall in 2002-03.

### 3.2. Production:

Foodgrains production mainly consist of paddy, millets and pulses. The production of paddy in terms of rice declined by 45.6 per cent from 65.84 lakh tonnes in 2001-02 to 35.77 lakh tonnes in 2002-03 due to drought. Like paddy, the oil seeds production decreased by 47 per cent, cotton by 33.5 per cent and sugarcane by 16.5 per cent respectively. The deficient rain fall, coupled with continued Cauvery water tangle adversely impacted crop production.



### 3.3. Yield:



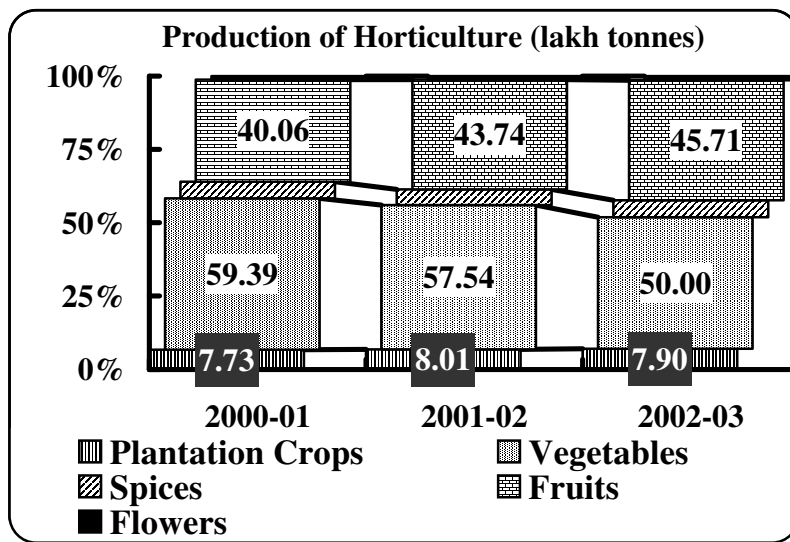
The average yield of paddy come down by 26.2 per cent from 3196 kgs in 2001-02 to 2359 kgs in 2002-03. There was a decline in the yield rate of foodgrains by 28.3 per cent and pulses by 9.9 per cent. The respective yield rate of coarse cereals had also dipped by 19.0 per cent, cotton by 20.6 per cent and sugarcane by 8.9 per cent in 2002-03.

#### 4. Horticulture:

Crop diversification is being advocated and one of the thrust areas is horticulture. The State has high potential for the development of horticultural crops. Horticulture provides value addition, avenues for employment, additional income, nutritional security, raw-materials to agro-based industries and also potential for export earnings. The

share of Tamil Nadu is 5.4 per cent in terms of area and 7.6 per cent in terms of production under horticultural crops at national level. The area under horticulture crops had slightly improved from 8.50 lakh hectares in 2000-01 to 8.52 lakh hectares in 2001-02. However, it was at 7.77 lakh hectares during 2002-03 which was below the levels of the previous year by 8.80 per cent. The fruits, vegetables and plantation crops shared more than 75 per cent of the area covered by horticultural crops.

The total horticultural production had shown an upward trend from 115.25 lakh tonnes in 2000-01 to 117.13 lakh tonnes in 2001-02. However, production was lower by 22 per cent decreasing from 117.13 lakh tonnes in 2001-02 to 91.68 lakh tonnes in 2002-03. Fruits and vegetables accounted for about 83 per cent of the total production of horticultural crops in the State. The yield had witnessed a sustained increase in 2000-01 and 2001-02 but declined during 2002-03. The yield rate which increased by 1.40 per cent in 2001-02, fell by 14.2 per cent in 2002-03.



**Table - 4: Area, Production and Yield rate of Horticultural Crops**

Crop	Area (lakh hectares)			Production (lakh tonnes)			Yield (tonnes / ha.)		
	2000-01	2001-02	2002-03	2000-01	2001-02	2002-03	2000-01	2001-02	2002-03
Fruits	2.23	2.29	2.23	40.06	43.74	40.14	17.98	19.10	17.96
Vegetables	2.20	2.18	1.62	59.39	57.54	35.99	26.97	26.39	22.25
Spices	1.68	1.61	1.46	6.62	6.37	6.25	3.94	3.96	4.27
Plantation crops	2.20	2.25	2.28	7.73	8.01	7.95	3.51	3.56	3.49
Flowers	0.19	0.19	0.18	1.45	1.47	1.35	7.75	7.74	7.65
<b>Total</b>	<b>8.50</b>	<b>8.52</b>	<b>7.77</b>	<b>115.25</b>	<b>117.13</b>	<b>91.68</b>	<b>13.56</b>	<b>13.75</b>	<b>11.80</b>

P - Provisional

Source: Directorate of Horticulture and Plantation Crops, Chennai - 5.

Horticultural is receiving a high priority in rural economy. The implementation of the Comprehensive Watershed Programme focuses on promoting perennial horticultural crops in the private holdings on a large scale. The State has vast potential for successful cultivation of crops like mango, banana, cashew, tapioca, medicinal plants and flowers which is being exploited intensively under the Horticulture Mission.

The much needed thrust to the horticulture development in the State are provided by the following programmer: (a) Integrated Horticulture Development Scheme (IHDS), Integrated Tribal Development Programme (ITDP), Western Ghats Development Programme (WGDP) and Hill Area Development Programme (HADP) as detailed below.

- Integrated Horticulture Development Scheme (IHDS);
- Area Expansion Programme;
- State Horticulture Farms;
- Horticulture Training Centre and
- Integrated Tribal Development Programme (ITDP).

## **5. Sericulture:**

Sericulture is one of the important sub-sectors in the textiles industry. Sericulture contributes significantly in terms of employment and income generation. Production of raw silk depends upon the quality of silk worms. Improved bivoltine races are being introduced which improves both productivity and income for the farmers. The cocoon and raw silk production is being done in 26 districts in Tamil Nadu. Of which 5 districts viz. Dharmapuri (50.3%), Vellore (12.7%), Erode (10.6%), Coimbatore (6.7%) and Namakkal (3.7%) shared a major share out of the total area coverage of 13486 ha.

Of 19513 farmers are engaged in silk worm rearing covering an area of 13486 hectares under mulberry with a production of 89.56 lakhs layings in 2002-03. Dharmapuri district occupies top slot with 23.01 lakh kgs. (57.5%) out of the total production of 40.65 lakhs. In the raw silk production also credit goes to Dharmapuri district with 2.801 lakh kgs. (57.2%) of the total production of 4.89 lakh kgs. during 2002-03. The average price offered for silk was higher (Rs.1022) in the month of February and lower in March (Rs.907). The prices of raw silk and competition from imports influence the growth of this sector.

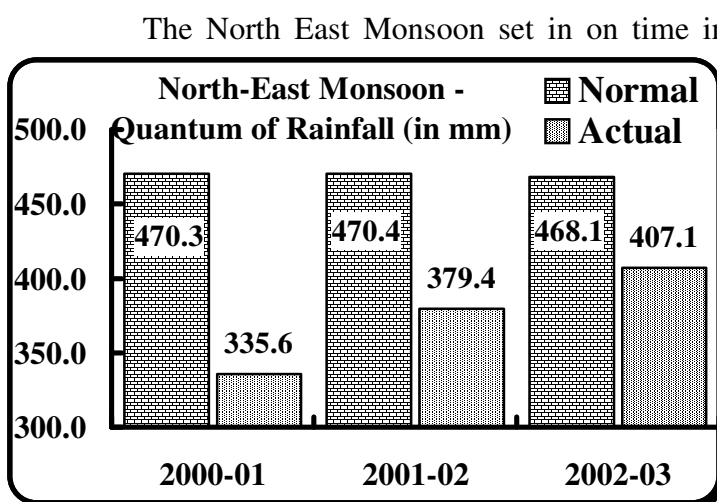
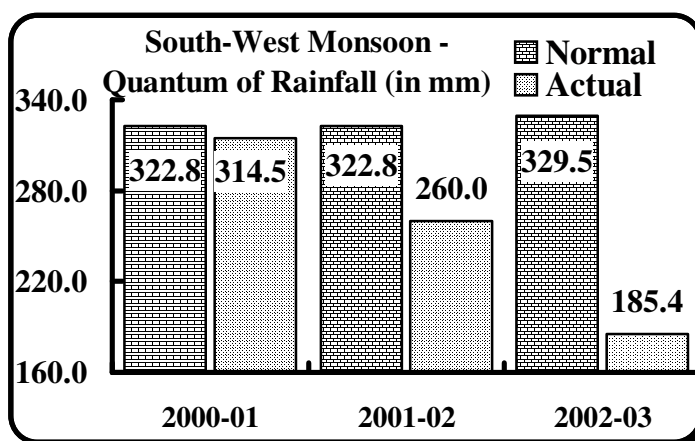
## **6. Input Management:**

The production and yield of agricultural crops in the State mainly depend on various inputs supply and management. The improved agricultural practices such as the application of hybrid seed, fertiliser, pesticides, etc. are being extensively adopted in the state.

### **6.1. Rainfall:**

Higher production and yield are influenced by good spatio-temporal distribution of rainfall. Since 2001-02 the State had been experiencing failure of monsoons. The temporal distribution of rainfall during South West Monsoon and North East Monsoon was not good during 2002-03 as in the previous year. This had an impact on area coverage, production, yield rate, employment generation and thereby decline in the demand for the industrial products.

The South West Monsoon in the State was deficient by 43.7 per cent against the normal level in 2002-03. The State average level of rainfall during this season was normal in June, deficient in August and September and scanty in the month of July 2002. The district-wise distribution of rainfall was normal in one district, deficient in 23 districts, and scanty in five districts.



The North East Monsoon set in on time in the State. The quantum of rainfall received during this monsoon was at 407.1 (mm) below the normal level of 468.1 (mm) with a deficit of (-) 13.0 per cent. During this season the rainfall was excess in four districts, normal in 14 districts and deficient in 11 districts. The deficient rainfall received during the season had seriously affected the performance of agriculture in the "rice bowl" districts viz: Thanjavur, Thiruvarur and Nagapattinam.

This overall rainfall stood at 731.0 (mm) against the normal level 964.1 (mm) leaving a gap of (-) 24.2 per cent.

**Table - 5 : Temporal Spread of Rainfall**

Year	South west Monsoon		North - East Monsoon		Overall	
	Normal	Actual	Normal	Actual	Normal	Actual
2001-01	322.8	314.5 (-)2.6	470.3	335.6 (-)28.6	979.3	785.3 (-)19.8
2001-02	322.8	260.0 (-)19.5	470.4	379.4 (-)19.3	974.7	795.2 (-)18.4
2002-03	329.5	185.4 (-)43.7	468.1	407.1 (-)13.0	964.1	731.0 (-)24.2

Source: 1. India meteorological Department Chennai - 600 006.  
2. Directorate of Economics and Statistics, Chennai-6.

There is a wide gap between the capacity of the reservoir and actual quantum of water storage.

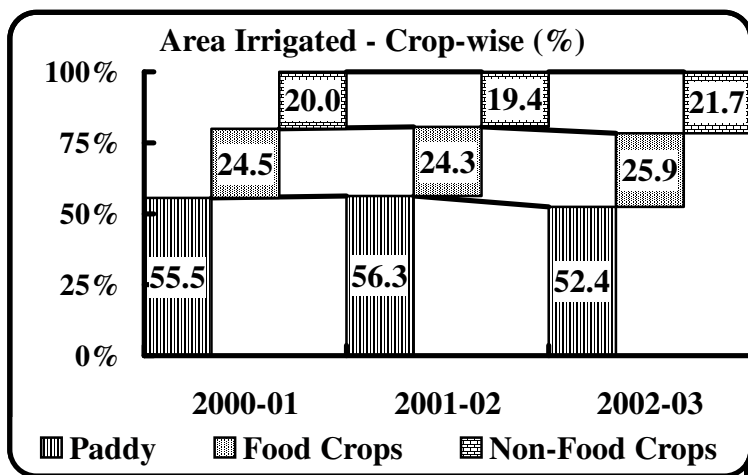
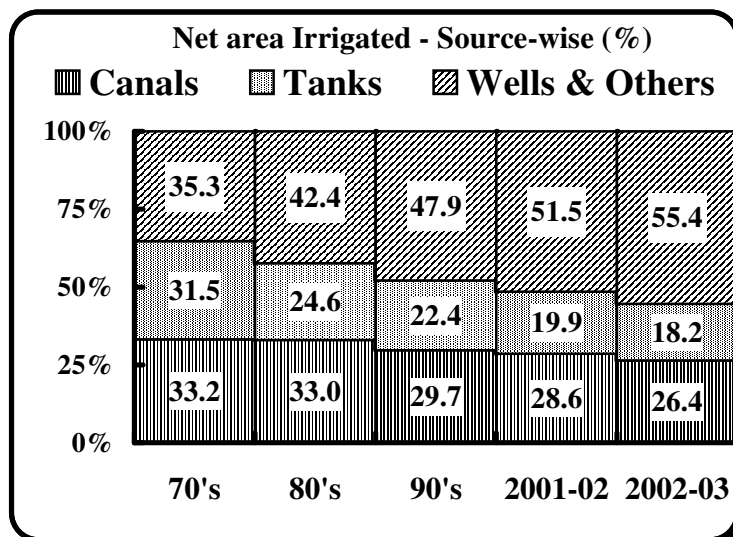
**Table – 6 : Storage Position of Major Reservoirs**

Reservoir	Full Capacity (Tmcft)	Storage (%)	
		As on 31.1.2002	As on 31.1.2003
1. Mettur	93.5	20.54	7.80
2. Bhavanisagar	32.8	3.11	8.55
3. Periyar	10.6	14.91	9.67
4. Sathanur	7.3	66.70	17.81
5. Vaigai	6.1	12.74	16.34
6. Manimuthar	5.5	43.55	61.86
7. Papanasam	5.5	27.51	37.56
8. Peachiparai	4.5	23.30	24.92
9. Amaravathy	4.0	5.61	15.05
10. Perunchani	2.9	8.86	13.08
11. Krishnagiri	1.7	91.84	29.47

Source: Monthly Review of Tamil Nadu Economy, January 2003, Directorate of Economics and Statistics, Chennai – 6.

## 6.2. Irrigation:

The irrigation potential of the State has almost been fully realised. Out of the total area under cultivation 2622291 hectares have assured sources of irrigation. In the irrigated area, the share of wells is 55.4 per cent, canals 26.6 per cent. Irrigation by canals have been influenced by factors such as the Cauvery river dispute. So the dependence on ground water has been increasing causing rapid depletion of the known and



available sources of ground water. In the State, areas have been delineated in terms of potential and usage over extraction of ground water also leads to the problem of salinity. In this situation, minor irrigation and precision farming is becoming increasingly relevant and the Government is stepping up investment. Irrigation to be sustainable has to perform focus on moisture conservation and soil conservation.

**Table - 7**  
**Irrigation Profile - Tamil Nadu**

Item	2000-01	2001-02	2002-03 (P)
Total rainfall	785.3	795.2	731.0
Net area irrigated (lakh ha.)	28.9	28.0	23.1
Canals	8.3	8.0	6.1
Tanks	5.9	5.4	4.2
Wells (tube and ordinary wells)	14.5	14.5	12.6
Others	0.2	0.1	0.2
Gross area irrigated (lakh ha.)	34.9	34.1	26.2
Net area sown (lakh ha.)	53.0	51.7	45.9
Gross cropped area (lakh ha.)	63.4	62.3	51.9
Irrigation intensity (%)	120.8	121.8	113.4
Cropping intensity (%)	119.6	120.4	113.1
Net area irrigated as percentage to net area sown	54.5	54.2	50.3
Gross area irrigated as a % to gross cropped area	55.0	55.0	50.5
Total foodgrains production (lakh tonnes)`	86.17	76.89	44.59

*P - Provisional.*

*Source: Season and Crop Report, Directorate of Economics and Statistics, Chennai-6.*

### **6.3. Seed:**

Production and productivity of crops is dependant on the quality of seeds. According to scientific analysis the improved seeds by itself contributes to about 30 per cent of the total yield. Seed, especially, hybrid seed is vital input playing an important role in the yield of crops. The State had established 39 State Seed Forms. The breeder seeds supplied by TNAU were multiplied in these forms as foundation seeds with regard to Paddy, Millets, Pulses, Cotton and other crop breeder seeds are either multiplied in Government farms and also in farmers field. The certified class of crop seeds are invariably multiplied in farmers field.

Agricultural production and productivity is dependant on adequate production and timely distribution of quality seeds. The supply of certified seeds for paddy was 18518 tonnes in 2000-01, 18799 tonnes in 2001-02 and 15483 tonnes in 2002-03. The supply of millet seed stood at 420, 404 and 363 tonnes in the respective years. However, in 2002-03 all crops had witnessed a reduced consumption whereas in 2001-02 except paddy and millets all other crops consumed lesser quantity against the target. The actual production of oilseeds during 2002-03 stood at 4269 tonnes. During 2001-02 it was (4202 tonnes) which marginally rose by 1.6 per cent.

**Table – 8 : Distribution of Improved Seed**

Crops	2000-01		2001-02		2002-03		% deviation from the target	
	Target	Achieve-ment	Target	Achieve-ment	Target	Achieve-ment	2001-02	2002-03
Paddy	18000	18518	18000	18799	18000	15483	4.4	(-)13.9
Millets	400	420	400	404	400	363	1.0	(-)8.3
Pulses	2600	1759	2600	1544	2600	941	(-)40.6	(-)63.80
Foodgrains	21000	20697	21000	20747	21000	16787	(-)1.2	(-)20.1
Oilseeds	11913	4381	11913	4202	9097	4269	(-)64.7	(-)53.1
Cotton	375	225	375	174	322	124	(-)53.6	(-)61.5
Non-foodgrain	12288	4606	12288	4376	9419	4393	(-)64.4	(-)53.4

Source: 1. Policy note on Agriculture, 2003-04, 2. Commissioner of Agriculture, Chennai - 5.

One of the methods to address the problem of plateauing of output is to change the pattern of input application, particularly seeds. The challenge is to use seeds that are drought and pest-resistant besides being high yielding. GM seeds are distributed through private firms for commercial cultivation.

#### 6.4. Seed Replacement Rate:

As seed is one of the vital inputs for the improved production and yield, the Department of Agriculture is playing a major role in the production and distribution of quality seeds (certified) as per the recent Seed Replacement Rate.

However, the farmers do not fully adhere to the seed replacement rate as recommended for major crop.

**Table - 9 : Seed Replacement Rate of Select Crops : 2002-03**

Sl.No	Crop	Seed Replacement Rate in (%)
1.	Paddy	17
2.	Millets	7
3.	Pulses	12.5
4.	Cotton - (Rainfed) Cotton -Irrigated	10 15
5.	Groundnut	5
6.	Gingelly	15
7.	Sunflower	50
8.	Castor	30
9.	Soyabean	20

Source: Police note on Agriculture, 2003-04.

#### 6.5. Fertiliser:

The pattern of utilisation of fertiliser (NPK) has been changing owing to change in subsidies and prices. Seasonal fluctuations leading to change in cropping pattern, adoption of organic farming practices etc. This has led to imbalances in application of fertiliser. This has led to change in soil fertility and depletion of nutrients Bio-fertilizer is useful for it provides nutrients and improves the quality of the soil. Timely supply and use of both chemical and bio-fertilisers are crucial for sustaining agricultural production and yield. The balanced application of three micro nutrients viz: Nitrogen (N), phosphate (P), and Potash (K) is vital for optimum production process. During 1990s, the consumption of chemical fertilisers has increased at an annual rate of 2.89 per cent against 4.11 per cent at National level. However, the fertiliser consumption had witnessed a decline in consumption during 2002-03 as compared to the consumption in 2001-02. This was to the tune of 16.8% in Nitrogenous fertiliser, 26.3% in Phosphatic fertiliser and 24.6% in Potassic fertiliser. The

total consumption of chemical fertilisers had also come down from 9.38 lakh tonnes in 2001-02 to 7.43 lakh tonnes in 2002-03 (20.8 percent). Due to this change, the consumption of chemical fertilisers has declined.

**Table - 10 : Distribution of Chemical Fertilisers**  
( Lakh Tonnes)

Nutrients	2000-01	2001-02	2002-03
Nitrogen (N)	5.47	5.05	4.20
Phosphates (P)	2.08	2.05	1.51
Potash (K)	2.08	2.28	1.72
<b>Total</b>	<b>9.63</b>	<b>9.38</b>	<b>7.43</b>

Source: 1. Policy Note on Agriculture 2003-04.

2. Commissioner of Agriculture, Chennai-5.

### 6.6. Bio-fertiliser:

There has been growing concern about the deteriorating condition of soil health and environment pollution due to injudicious application of chemical fertiliser. In order to reduce the impact of chemical on soil and environment use of Bio-fertiliser is being advocated. Bio-fertilizers are not only substitutes for chemical fertilizer but also supplement and maintain the soil fertility status. The use of Bio-fertilizers in combination with chemical fertilizer and organic manures help in increasing the crop production.

Use of Bio-fertilizer is being popularised under organic farming in the recent years. Six Bio-fertilizer production units functioning in the State at Cuddalore, Ramanathapuram, Salem, Kudumianmalai, Sakkottai and Thiruchirappalli with the annual production capacity of 1400 mts. The quality of Bio-fertilizer is being tested by quality control laboratory at Trichirappalli in the State are also at the Regional Bio-fertiliser development centre at Bangalore. The details of distribution of bio-fertiliser during 2002-03 are as follows.

**Table - 11 : Bio –Fertilizers Distirbuted**  
(Metric Tonnes)

Type	2000-01	2001-02	2002-03(P)
Rhizobium	256	241	390
Azospirillum	787	804	712
Phosphobacteria	366	383	192
<b>Total</b>	<b>1409</b>	<b>1428</b>	<b>1294</b>

P -Provisional Source: Policy note on Agriculture 2003-04.

### 6.7. Plant Protection:

Plant protection and pest control are ensured by implementing the Integrated Pest Management (IPM) technology. It conserves agro-eco system and helps to eliminate residual toxicity in plant. The application of pesticides is vital for reducing crop losses due to attack of the major pests like stem borer, leaf folder in paddy, red hairy cater pillar and prodnia in cotton are still exist. The crop protection against the attack of pests and disease is estimated to save 20 per cent of the agricultural production.

## **6.8. Pesticides:**

The pesticides consumption which was at 10367 metric tonnes of technical grade during 1982- 83 had come down to 1663 MTs during 2002-03. To ensure the availability and quality of pesticides, there are nine Pesticides Testing Laboratories functioning in the State. During 2002-03, 16513 nos. were analysed for quality maintenance of pesticides through this laboratories. The adoption of Integrated Pest Management concept, coupled with surveillance of pest, diseases are the major reasons that was helped the reduction of consumption of Technical Grade Materials in the State.

## **7. Developmental Initiatives:**

Since there is only limited scope for extensive cultivation, focus is being bestowed on intensive cultivation. At present, the State has taken initiatives to make the unproductive lands productive by bringing the wastelands under plough through adoption of appropriate technology and provision of required financial backing. The total geographical area of Tamil Nadu is 129.92 lakh ha. and the estimated area under wastelands as per NWDB definition is 36.28 lakh ha. About 5.42 lakh ha. (14.9%) have been taken up for development at an estimated cost of rs.224.89 crores since 1993-94 under DPAP, IWDP and WDP.

The State has been implementing important developmental programmes on participatory approach. They are: Comprehensive Waste land Programme (CWP), Drought Prone Area Programme (DPAP), Integrated Waste land Development Programme (IWDP) and National Watershed Development Project for Rainfed Areas (NWDPR).

### **7.1. Comprehensive Wasteland Programme (CWP):**

Recognising the importance of soil and water conservation, the State implements this programme with participatory watershed development approach. The special project envisaged reclamation of 20 lakh hectares of cultivable waste land in the State. This programme was implemented through people's participation besides private sector participation. Objectives of the programme are to bring additional area under cultivation and to create gainful employment for the unemployed and underemployed.

A project with two components had been prepared for achieving the objectives of the programme viz., Participatory Watershed Programme and Corporate Sector Participation.

The project was with an estimated cost of Rs.1630 crores. The Participatory Watershed Programme is being implemented in the districts of Salem, Namakkal, Vellore, Pudukottai, Thiruchirapalli, Ramanathapuram, Trinaveli, Dindugul, Theni and Thiruvannamalai.

A record number of 2177100 horticulture and agro - forestry seedlings were planted in 10 districts with an area coverage of 21771 hectares. Against the financial allotment of Rs.30.00 crores, a sum of Rs.21.17 crores had been spent up to 31-3-2003. For the successful implementation of the scheme, the State is advocating the participation of both private and corporate sector.

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

The project (NWDPR), a Centrally-Sponsored Scheme is being implemented in the State since 1990-91. It aims at sustaining agricultural production of bio-mass and restoration of ecological balance in the watershed areas. The scheme was implemented in 84 blocks spread over 23 districts during X Plan. A sum of Rs.73.92 crores has been utilised for the treatment of an area coverage of Rs.226645 ha. restoration of ecological balance in the degraded and fragile rainfed eco-system the programme offers scope creation of employment on farm activities during IX Plan.

The restructured NWDPR is one of the major components of macro management mode work plan implemented in all blocks where less than 30 per cent assured means of irrigation in both arable and non-arable lands. The Government of India shared a major part (90%) whereas the rest (10%) met by the State. The Central assistance comprised 80 per cent grant and 20 per cent loan had been implemented in 23 districts except Thanjavur, Thiruvarur and Nagapattinam, Chennai, Nilgiris and Kanyakumari districts. During X Plan 763 was of micro watersheds of each (500 ha.) has been proposed for treatment to cover an area of 381500 ha. in the identified (23) districts. During the first year plan period, an amount of Rs.1715.89 lakhs has been sanctioned during 2002-03. An amount of Rs.1408.33 lakhs (82%) was spent towards the area treatment of 31296 ha. out of the total allocation of Rs.1715.89 lakhs during 2002-03.

## **7.3. Regulated Agricultural Marketing:**

With a view to enabling the weaker section of the family cultivators to obtain attractive price for their produce and to ensure correct weightment of farm produces, the Regulated Marketing Network has been in vogue since 1987. The State has 20 Market Committees to monitor the working of the Regulated Markets. As on 2002-03, there were 272 regulated markets, 15 sub-markets and 15 check posts, 108 rural godowns and 108 grading centres under the 20 Market Committees.

Farm produce such as paddy, groundnut, cotton etc. are coming under the purview of Regulated Marketing Network. Though the regulated markets are catering to the needs of the farmers, the percentage of produce transacted in the Regulated Markets is found to be insignificant because of prior financial commitments made by the farmers to the local money lenders at the time of commencement of the financial operations.