Chapter – III

The Role of Agriculture Marketing in the Economy and Society
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THE ROLE OF AGRICULTURE MARKETING IN THE ECONOMY AND SOCIETY

3.1 Introduction

India is mainly an agricultural country. Agriculture is the most important occupation for most of the Indian families. In India, agriculture contributes about sixteen percent (16%) of total GDP and ten percent (10%) of total exports. Over 60% of India’s land area is arable making it the second largest country in terms of total arable land. Agricultural products of significant economic value include rice, wheat, potato, tomato, onion, mangoes, sugar-cane, beans, cotton, etc.

Agriculture is the backbone of Indian economy. Though, with the growth of other sectors, the overall share of agriculture on GDP of the country has decreased. Still, Agriculture continues to play a dominant part in the overall economic scenario of India.

Food is essential for life. We depend on agricultural outputs for our food requirements. India produces large quantity of food grains such as millets, cereals, pulses, etc. A major portion of the food-stuffs produced is consumed within the country. Our farmers’ works day and night to feed our population that counts over 1.21 billion. Besides agriculture with a commercial bias, subsistence agriculture with its emphasis on the production of food for the cultivator’s family is widespread. Traditionally, Agriculture is followed as the simplest method of obtaining food for the family. Agriculture in India is more a ‘way of life’ then a ‘mode of business.

3.2 Assessing the Role of Agriculture

It is interesting that the importance of agriculture in the economy in the six original member states in the late 1950s appears statistically very similar to Poland today in terms of agricultural employment as a share of total employment and the contribution of agriculture as a share of the total economy. That would mean that we
are about 40 years back in development. It is a special situation, but times are different now from what they were in 1958, or slightly later, and changes are coming much more quickly. It is think that closing the gap will take less time than it would have 40 years ago. But still it will take a lot. We observe in our country a kind of acceleration of development. It goes beyond my expectations.

If somebody would come to me and ask for special preferential credits for agriculture, or for any special treatment of agriculture, I would resign immediately. There is no reason to treat agriculture as a special part of the economy. Mining and ore extracting industries are in a terrible situation, construction industries, also. Why not treat construction industries or extracting industries in the same way, as a special case also.

3.3 Role of Agriculture in Society

The Specificity of agriculture absorbs the attention of many people in the nation. Why is it important? The reasons or beliefs attached to its importance vary. In India there is a focus on rural life and its symbolic values for all who felt uncomfortable with the hostile modernization of society triggered by industrialization and urbanization. It is true that the rural life is becoming attractive for highly developed countries.

In countries less developed, rural life means backwardness. It should be transformed into industrial or socialist type production. The peasant economy and rural life are full of backwardness, stupidity" and so on. Since Marx was very popular in socialist countries for political reasons, rural life, traditional family values, individual holdings and all these things were viewed by Marxists as something old fashioned that should be modernized. So there is a legacy of the communist ideology - at least in the minds of people. It is quite idiotic.

3.4 Role of Economic Efficiency

The idea of raising farmers' incomes is a very important part of the (Common Agricultural Policy) CAP and the general agricultural policy in the community. There
is a statement in Moehler's paper that in the fast years of European Community (EC) existence, "policy was aimed at increasing the incomes of farmers that did not flow exclusively from the increase of productivity."

As we know, the productivity has grown faster than the incomes of farmers in the Community during the last 25 years. Of course, there was income support in the community, but the money that was pumped into agriculture helped farmers to increase productivity tremendously. European agriculture is a great success in terms of productivity. This is an important issue in Poland, the Czech Republic, and Hungary and so on, and will be for the next few years because they cannot pump money into agriculture to increase productivity. Addressing the productivity problem is becoming a number one goal for agricultural policy in Poland and in other countries. To increase productivity in agriculture is combined usually with competitiveness in agriculture. So the emphasis is on productivity plus competitiveness.

3.5 Family Farm

The Role of Agriculture in the Economy and Society makes the point that despite all the development in Indian agriculture, it has not affected the essence of the traditional family farm. The family farms have changed a lot, but still there are mostly family farms, and there is something stable in the farms. This is confirmed by the experience of the post-communist countries. Even during the communist period, that the essence of the farm survived even in some countries where collectivization was predominant. There were small household plots that represented the essence of the farm. This is difficult for general historians, economists or rural sociologists to understand.

In market economies added value is so important because added value is the measure of productivity. In the family farms added value is an attachment to the traditional values. It is true for peasant farms; of course, Russian economist A.V. Chayanov presented one of the best analyses of the peasant economy in literature, when he stressed the point that in the peasant farm you cannot create activity as a
business firm creates routine activity. Profit is not the main goal; there is no maximisation of profit. There are some other very important goals from day to day. The added value is something additional to traditional values in family farms, especially peasant farms. It is not the same in commercial farms, especially those with hired labour.

3.6 Food Safety and Quality

The food safety is a new problem and it is becoming popularised. For example, some of our producers started to use food safety as an argument against the importation of goods. Farmers argue that imported goods have some chemical ingredients, and so on; therefore, "Buy Polish products - they are safer because they are produced in a more natural way."

3.7 Promoting Rural Development

There is a shift from agricultural policy to rural policy in a country. In 1994, some government documents were presented about rural policy and the need to shift from agricultural policy to rural policy. This shift may portend new functions for agriculture. Rural development policy is discussed as multi-functional in rural areas, but agriculture is also multi-functional - essentially it is combining the functions for rural areas and agriculture. Significantly distressed rural areas will be treated in completely new ways. The rural areas and present agriculture as not a producer of agricultural good, but as a source of multi-functional activity.

3.8 Improve Market Infrastructure

Interventions to improve market infrastructure would target roads, rail, market facilities, water points and health-control infrastructures (i.e. quarantine facilities). Projects for market-sale points, such as auction yards, need to be better designed and located. In Abiding, for example, a new concrete livestock market remained unused next to the traditional open-air market (Ariza-Nino et al, 1980). In this case, the informal market was already serving an existing need. If market facilities are provided, they need to be built on existing traditional sites and should not be so heavily regulated that agents avoid them.
Investment in water points along trekking systems may prove wasteful. Water points can cause crop damage to neighbouring fields. Often, traders are taxed at these points, which make them use traditional routes. Market trails could be created if well located in terms of supply and demand areas and grazing areas, along the route and water points. Providing grazing reserves near major livestock markets helps to stabilize the flow of cattle, but fees for such use must be reasonable if traders are to use them. Such reserves could reduce price fluctuations, reduce risk and animal weight loss.

3.9 Improve Information

Information is important for facilitating effective marketing. While traditional information systems seem relatively effective for livestock markets, one unfortunate consequence of regulated prices is a lack of information on real market prices.

3.10 Improve Institutional Infrastructure

Improving the institutional infrastructure may be the most important government role in marketing. Government interventions should promote an open and stable institutional framework. This may take the form of improving security (such as, protecting property rights and contracts) and controlling corruption and violence.

A major difference between "traditional" and "modern" markets lies in the degree of personal involvement of marketing agents. In a "modern" market system, personal involvement is minimum; traders operate through institutions which guarantee legality and value. While in traditional livestock markets transactions are guaranteed by a broker who is known to the traders, transactions in modern markets are guaranteed through regulations and supporting legislations. Unfortunately, attempts to provide these regulations have often been badly handled. As a result, traders have shifted back to operating within the informal sector.

Institutional attempts to "organise" trade through restrictive licensing or limiting the number of intermediaries have forced traders to move into the informal sector. In some Sahelian countries, authorities have tried to limit or reduce the number
of traders and organise them along artificial functional lines. The result has been less competition, less new entry into the market and the creation of informal markets. Attempts at regulation should promote rather than discourage competitive marketing to reduce costs. Finally, any new interventions should be made gradually, since new policies often cause severe market disruptions.

Most governments have not been able to resist the temptation to intervene directly in markets, particularly by setting prices to create low prices for urban consumers. In general, price-control efforts reduce the efficiency of marketing systems. Direct government intervention in the form of marketing boards is now also recognised as generally undesirable. The result has often been to incur additional costs and wastage which might not occur in a competitive marketing situation. Problems of marketing boards tend to be:

- Government management styles and procedures can be too cumbersome for efficient marketing.
  - Few incentives exist for efficiency.
  - Low salaries can produce corruption.
  - Marketing boards are too often a convenient means for taxing producers and traders.

Since, for marketing boards to operate efficiently marketing channels need to be few and concentrated, livestock markets are generally not suited to them.

### 3.11 Market Information and Intelligence

Market information is crucial to producers, wholesalers and consumers to help them make decisions on what and whether to buy and sell. In general, information is required on prices, traded or available quantities, forecasts of future supplies and demand, and general market conditions. Information must be relevant, accurate and timely and reflect all sectors of the market, especially consumer demand. Such information can be used by traders to shift to those goods with high consumer
demand. An effective market information system reduces risks to traders, eventually reducing market margins. When reliable information is not available, traders increase their margins to protect themselves from risk (e.g. if information on distant cattle markets is not reliable, traders face the risk of finding low prices at the end of a long trek).

In most African livestock markets, evidence suggests that information flows relatively freely through traditional information systems, although this may not be the case for markets that are not trading regularly throughout the year. Even external consumer preferences are conveyed well, as evidenced by a quick shift in the suggested export patterns when international demand changes.

An efficient market information system needs to address information flows in both directions between consumers and producers. Information should be evaluated in terms of its accuracy, how promptly it reaches those who need it and its degree of detail. These can be determined by comparing the results of surveys of traders and agents with known information about the market.

Methods of collecting market information vary from country to country. Central agencies may be poorly trained and the same market figures may be reported in successive years. Price information, perhaps the easiest to gather, is usually collected by reporters who go into the market and randomly sample. The systematic collection of reliable market data is a tedious and difficult task and is often avoided because of large recurring costs. In cattle markets, collecting systematic data may not be feasible because of the large volume of informal trading that takes place. Whether information about the number of animals presented at market or slaughtered can be transmitted rapidly depends on the effectiveness of the market information collection and dissemination system. The cost effectiveness of weekly and monthly statistics on this type of information is uncertain, because such information is likely to be more readily and efficiently disseminated through informal communication channels. Whatever system is used, it should be simple. Data should be generated quickly and disseminated promptly.
Attempts to disseminate price information on cattle have suffered from a lack of uniform standards (e.g. animal weights, grades etc). Grading systems are particularly important to market information systems. The need for grading is based on the idea that buyers recognize differences in quality. Thus, some buyers are willing to pay more for the quality they want and may buy other qualities only at lower prices or in smaller quantities. Sellers can benefit from grading because negotiating contracts becomes easier.

3.12 Role of Agriculture Marketing

Agriculture marketing plays a great role in order to develop the economy of a nation. It contributes major role to increase the countries national income and provides employment opportunities and taken initiative steps to establish the market places to sell the agriculture produces. It generates revenue to the individual farmer and also to the government. Through this the government has taken necessary steps to start the industries in every state. Role of agriculture marketing in India are as follows:

- Share in national income

Agriculture is India's big economy. Although the share of agriculture in the total national income has been gradually decreasing on account of development of the secondary and tertiary sectors it's contribution continues to be significant. IN 1950, the share of agriculture was 57% but it is only 26% now. The more developed a country is the lesser is the contribution of agriculture.

Source of Employment

In India over two-thirds of our working population are engaged directly on agriculture and also similarly depend for their livelihood. According to an estimate, about 66 per cent of our working population is engaged in agriculture at present in comparison to that of 2 to 3 per cent in U.K. and U.S.A., 6 per cent in France and 7 per cent in Australia. Thus the employment pattern of our country is very much common to other under-developed countries of the world. Today almost 60% of the population depends directly or indirectly on agriculture. The greater independence of
working population on agriculture indicates the underdevelopment of non-agricultural activities in the country.

- **Industrial development**

  Agriculture in India has been the major source of supply of raw materials to various important industries of our country. Cotton and jute textiles, sugar, vanaspati, edible oil plantation industries (viz. tea, coffee, rubber) and agro-based cottage industries are also regularly collecting their raw materials directly from agriculture. Agriculture provides raw materials to pour leading industries such as cotton textiles and sugar industries. Not only have this workers in industries depended on agriculture for their food. Agriculture also provides the market for a variety of goods.

**Development of tertiary sector**

Tertiary sector provides helpful services to the industries and agriculture like banking, warehousing etc. Internal trade is mostly done in agricultural produce. For example, various means of transport get bulk of their business by the movement of agricultural goods.

**Revenue to the government**

Agriculture is one of the major sources of revenue to both the Central and State Governments of the country. The Government is getting a substantial income from rising land revenue. Some other sectors like railway, roadways are also deriving a good part of their income from the movement of agricultural goods. State government gets a major part of their revenue in terms of land revenue, irrigation charges. Central government also earns revenue from export duties on the agricultural production.

**International importance**

Agriculture plays an important role in the internal trade. It is because of the fact that 90% of our population spends 60% of their income on the purchase of the items like food, tea, milk etc. A number of the agricultural commodities like tea,
coffee, spices and tobacco constitutes our main items of exports. These amount to almost 15% of our total exports. Hence agriculture provides foreign exchange which helps us to buy machines from abroad. It also maintains a balance of payments and make our country self-sufficient. Our agriculture has brought fame to the country. India enjoys first position in the world as far as the production of tea and groundnuts are concerned.

**Source of Food Supply**

Agriculture is the only major source of food supply as it is providing regular supply of food to such a huge size of population of our country. It has been estimated that about 60 per cent of household consumption is met by agricultural products.

- **Commercial Importance**

  Indian Agriculture is playing a very important role both in the internal and external trade of the country. Agricultural products like tea, coffee, sugar, tobacco, spices, cashew-nuts etc. are the main items of our exports and constitute about 50 per cent of our total exports. Besides manufactured jute, cotton textiles and sugar also contribute another 20 per cent of the total exports of the country. Thus nearly 70 per cent of India’s exports are originated from agricultural sector. Further, agriculture is helping the country in earning precious foreign exchange to meet the required import bill of the country.

**3.13 Role of Agriculture in Economic Planning**

The prospect of planning in India also depends much on agricultural sector. A good crop always provides impetus towards a planned economic development of the country by creating a better business climate for the transport system, manufacturing industries, internal trade etc.

A good crop also brings a good amount of finance to the Government for meeting its planned expenditure. Similarly, a bad crop lead to a total depression in business of the country, which ultimately lead to a failure of economic planning. Thus the agricultural sector is playing a very important role in a country like India and the
prosperity of the Indian economy still largely depends on agricultural sector. Thus from the foregoing analysis it is observed that agricultural development is the basic precondition of sectoral diversification and development of the economy.

An increasing marketable surplus of agricultural output is very much essential in India for

(i) Increasing supply of food and raw materials at non-inflationary prices;

(ii) Widening the domestic market for industrial products through higher purchasing capacities in the rural sector;

(iii) Facilitating inter-sectoral transfers of capital needed for industrial development along-with infra-structural development;

(iv) Increasing foreign exchange earnings through increasing volume of agricultural exports.

Restructure

One Deputy Director of Agriculture (Agri Business) for each district, one Agricultural Officer for every two blocks, one Assistant Agricultural Officer for one block have been posted as per restructuring to regulate Agri Business and encourage entrepreneurs. In 103 Uzhavar Sandhais, 51 Agricultural Officers and 52 Deputy Agricultural Officers are posted. After restructuring 239 original posts have been enhanced to 906 posts in Agricultural Marketing and Agri Business Department in state level.

The Main Activities

- Establishment and maintenance of Uzhavar Sandhaigal for the benefit of farmers as well as consumers.

- To create marketing opportunities for small and marginal farmers in cultivation of fruits, vegetables and flowers by formation of groups which includes production, storing and export.
• Establishment and maintenance of regulated markets in order to facilitate buying and
selling of agricultural produce for the benefit of the farming community.

• Grading of agricultural produce in the regulated markets and at farm holdings to help the producers to get remunerative price for their produce.

• To create awareness among the farmers about the benefits of grading, marketing, value addition and processing their produce through regulated markets by taking up training, publicity and propaganda.

• To set up Agriculture Export Zones for promoting export of agricultural produce by increasing the area under exportable crops, providing necessary post harvest management and other infrastructure required and information on prices prevailing at international markets as an integrated approach through computers.

• To take up Agmark grading of agricultural, animal husbandry and forestry products for the benefit of the consumers.

• To set up modern cold storage facilities to enable the farmers to store and sell their produce at favourable price and to help consumers to get quality food products.

• Food Processing Industries are promoted to minimise wastage of agricultural products, to increase employment opportunities and to enhance foreign exchange.

3.14 Market Committees

At present 21 Market committees are functioning in Tamil Nadu at district Level.

• Regulated Markets

There are 277 Regulated Markets, 15 Check Posts, 108 Rural Godowns and 108 grading centres functioning under the Market Committees. Competitive and remunerative prices are ensured for the produce sold by the farmers through closed tender system in the Regulated Markets. Free grading facilities for agricultural commodities and issuing pledge loan during distress sale are also available in the
Regulated Markets. The farmers of states of Maharashtra, Karnataka and Andhra Pradesh, sell their produce only through regulated markets as compulsory marketing is in force. 1 to 2% of the value of the produce is collected as market fees from the traders who procure the produce from the farmers. The procurement method is simplified in Tamilnadu so as to benefit the farmer. 1% of the value of the produce is collected as market fee from traders. Action is being taken for the construction of own building for Nilgiris Market Committee and 4 regulated markets at Ooty, Kothagiri, Coonur and Gudalur during this year at a cost of Rs. 3.25 crores. Necessary steps will be taken to acquire land for this purpose through District Collector, Nilgiris.

Services Rendered in the Regulated Markets

Regulated Markets provides facilities such as correct weighment by using electronic weigh bridges and weighing balances, godown facilities, bank facility, immediate payment, daily price information, rest sheds, drinking water facility, cattle sheds, free medical aid to farmers, input shops, phone and fax facilities etc. Under "AGMARKNET" centrally sponsored scheme 93 regulated markets have been provided with computer and Internet connectivity for effective price dissemination among farmers through AGMARKNET website. The information on commodity prices prevailing in various markets is made available; the farmers would be able to get better price of their produce by moving their produce to the market which pays higher. During the year 2007-08, 100 Regulated markets were computerized through AGMARKNET. The Market Committee-wise infrastructure facilities provided in the Regulated market.

- Notification of produce

So far, 42 Agricultural Commodities like cereals, millets, pulses, oilseeds, cotton, turmeric, etc. have been notified. Necessary action is being taken for Uniform notification of agricultural commodities throughout the state.

- Pledge Loan Facilities to Farmers

In order to avoid distress sales by the small and marginal farmers in the peak season, Regulated Markets are issuing pledge loan to farmers. Under this scheme, the
farmers can store their agricultural produce in the godowns of Regulated Markets for a maximum period of 6 months and take pledge loan of 75% of the total value of the produce upto a maximum of Rs.1,00,000. Likewise Pledge Loan facilities are extended to traders also with the rate of interest specified from time to time. Interest at the rate 9% for traders is charged for pledge loan facilities. During the previous financial year interest rates were reduced from 8% to 5% for the benefit of farmers.

- **Tamil Nadu Farmers Development and Welfare Scheme**

  Under this scheme, the farmers / tenants who sell one metric tons of paddy (or) equivalent value of their agricultural produce through Regulated Markets every year will be enrolled under this scheme and are eligible for a grant of a lumpsum amount up to Rs. 1,00,000, in case of death/ permanent disability occurring due to accident / death due to snake bite. In case the eligible farmer / tenant looses both the hands or either the legs or both the eyes due to accident, is eligible for a grant of Rs.75, 000/-. Incase of losing one hand or one leg or one eye or hip disability due to accident the farmer / tenant is eligible for a grant of Rs.50,000/-. The farmers need not pay any premium for this fund. The Market Committee concerned and the Tamil Nadu State Agricultural Marketing Board will bear the premium amount of Rs.10 per individual per year equally.

- **Agmark Grading**

  Agmark grading is undertaken to protect the consumers from the ill effects of consuming adulterated food commodities and to ensure quality food products. 30 Agmark grading laboratories and one Principal Agmark Grading Laboratory are engaged in grading the notified food products like vegetableoils, ghee, butter, honey, wheatflour, besanflour, ground spices, sago, rice, pulses, ragi, jaggery, turmeric, potato.

**Construction of Drying Yards in the Villages**

Out of 10% of Agricultural commodity wastage, 6% loss is due to not adhering proper post harvest practices. In order to minimise the post harvest losses in
grains, the department has taken up construction of drying yards at village level. From the year 1997 under this scheme, 1228 drying yards have been constructed at a total cost of Rs.23.20 crores. During the year 2007-08 constructions of 100 Drying Yards at a cost of Rs. 2.50 crores is under progress. This scheme shall continue during 2008 –09.

• **Uzhavar Sandhaigal**

103 uzhavar Sandhais are functioning in the state in Municipality and Town Panchayat areas for direct selling of fruits and vegetables by farmers to consumers without any hindrance of middlemen. The main object of Uzhavar Sandhai is to ensure farmers to get a better price for their produce and to enable the consumers to get fresh fruits and vegetables at a lesser price than the retail market price. During the year 2007-08, action is being taken to establish 50 more Uzhavar Sandhais at a cost of Rs. 11.25 crores. Hasthampatti Uzhavar Sandhai in Salem district has been inaugurated on 14.01.2008. As on date 104 Uzhavar Sandhais are functioning. Action is being taken to establish the remaining 49 Uzhavar Sandhais. Cold storage rooms of 2.0 M.T. capacities are to be installed in 22 top performing Uzhavar Sandhais at a cost of Rs.133.10 lakhs.

Various measures are taken by this Department to increase the arrivals in Uzhavar Sandhai, increase the number of farmers and for development of Uzhavar Sandhai. Every day, on an average, 1053 MT of fruits and vegetable worth Rs.108 lakhs are sold benefiting 7800 farmers and 1,97,000 consumers per day.

**Services to be rendered in the Uzhavar Sandhaigal**

Additional facilities like electronic weighing scale, Plastic trays, trolleys, wastage bins will be provided for the farmers in the Uzhavar Sandhaigal. Computers for effective communication, new hybrid seeds, seedlings, organic farming methodology, vermicomposting demonstration and post harvest management training to farmers will also be offered to those farmers visiting Uzhavar Sandhai. 25 Uzhavar Sandhais have been supplied with computers.
Establishment of Market Complex

- **Establishment of Market Complex for Mango and Onion.**

  For the interest of the small and marginal farmers action is being taken to establish market complex with cold storage facility at Pongalur in Coimbatore District for Onion and at Krishnagiri in Krishnagiri District for Mango at a project cost of Rs. 2 crores each (Total Rs.4 crores). Entrepreneurs have submitted their Expression of Interest and Detailed Project Report. The Projects were evaluated by the evaluation committee and the evaluation report and joint venture agreement with M/S Premium Farm Fresh Produces Limited, New Delhi as a equity partner with Tamilnadu State Agricultural Marketing Board is under consideration.

- **Establishment of Market Complex for Grapes at Odaipatti, Theni District.**

  Cold storage unit at Odaipatti in Theni District will be established at a cost of Rs. 3.75 crores for grapes in order to facilitate grading, packing and export of grapes, so as to benefit the grape growers. The evaluation proposal submitted by M/s. Peninsula Agro Tech India Ltd. of Theni District as a equity partner with Tamilnadu Agricultural Marketing Board is under consideration.

- **Establishment of Terminal Markets**

  As per the guidelines of the central Government, three Terminal Markets with all value addition facilities would be established near metro areas of Chennai, Madurai and Coimbatore for processing, storage and marketing of perishables like fruits and vegetables at a total cost of Rs.200 crores. Consultants have been selected to implement the project. M/s Darasha and company private ltd Mumbai, selected as a consultancy agency for implementing the Terminal Market scheme in Tamil Nadu.

**Agricultural Production and Marketing Information Centre**

Market intelligence plays a vital role in marketing agricultural produce. If the information on commodity prices prevailing in various markets is made available, the farmers would be able to get better price to their produce by moving their produce to the market which pays higher. Taking this aspect into consideration, Agricultural
Production and Marketing Information Centre has been established in 14 Regulated Markets like Dindugal, Alangudi, Madurai, Thirumangalam, Theni, Sivagangai, Ramanathapuram, Aruppukottai, Virudhunagar, Rajapalayam, Tirunelveli, Tuticorin, Vadaseri and Monday Market at a cost of Rs.45.00 lakhs. These centres were provided with computer and accessories with internet facility and electronic display boards. Agricultural Produce arrival, price details and post harvest management practices in the regulated markets are flashed in the Electronic display boards, for the benefit of farmers.

**Agri Export Zones**

To promote Agri Horticultural Produce Exports from Tamil Nadu, four Agri Export Zones for specific commodities have been established as detailed below.

- **Agri Export Zone for Cut Flowers at Hosur comprising of Dharmapuri and Krishnagiri Districts**

  In Tamil Nadu, Agri Export Zone for cut flowers has been approved and Memorandum of Understanding was signed with APEDA. In 198.73 acres of land, “TANFLORA”, a joint venture company of TIDCO and private promoter established infrastructural facilities like Central Packing House comprising of sorting, grading, packaging, cold storage and marketing facilities at Hosur at a cost of Rs. 24.85 crores. During the year 2007-08, 120 lakhs of cut flowers worth Rs.12 Crores have been exported to Europe, Middle and Far East Asian countries, Australia and Japan

- **Agri Export Zone for flowers in Nilgiris District.**

  An Agri Export Zone for flowers at Ooty covering Nilgiris district is being established with the participation by private promoter at a project cost of Rs. 15.89 crores. Memorandum of Understanding has been signed with APEDA. Infrastructure facilities like auction centre, mother plant nursery, pre-cooling, cold storage, reefer vans, Hi-tech training centre, common marketing facility, etc., are to be provided in the zone. The department of Horticulture & Plantation Crops is conducting Hi-tech floriculture training and providing planting materials at 50% subsidized cost and subsidy for green houses, shade nets to flower growers. An information centre for
providing technical consultancy and other horticultural information to the growers established at Ooty. On 6.2.2007, Electronic Flower Auction centre at a cost of Rs. 11 lakhs has been opened in Nilgiris and it is utilised by the farmers to sell their flowers.

- **Agri Export Zone for Mangoes in Theni District.**

  An Agri Export Zone exclusively for mango has been established in Theni and five other districts namely Madurai, Virudhunagar, Tirunelveli, Dindigul and Kanyakumari with private sector participation at a project cost of Rs. 24.60 crores. Memorandum of Understanding has been signed with APEDA. The private promoter M/s. Maagrita Exports Limited has established infrastructure facilities like state of the art Pack House, collection centre, processing units, grading halls, hot-water treatment plant, pulping centre, dehydration unit, canning unit, etc. in Nilakkottai Food Park.

- **Agri Export Zone for Cashew in Cuddalore District.**

  Agri Export Zone for cashew at a project cost of Rs. 17 crores at Cuddalore district has been approved. Memorandum of Understanding has been signed with APEDA. M/s Sattva Agro Export Pvt. Ltd., has been selected as the anchor promoter for cashew Agri Export Zone through private promoter participation. The Detailed Project Report for the construction of common infrastructure facilities was prepared by M/S Sattva Exports and handed over to TIDCO. TIDCO has approved to release an amount of Rs. 47.25 lakhs as State equity to M/S Sattva Agro Export Pvt. Ltd. The Agri Export Zone work commenced in the year 2006-07 and the construction of infrastructure facilities and modernised nurseries is under progress. A survey has been conducted by the Firm for the procurement of cashew from 120 farmers through contract farming.

- **Establishment of Cold Chain**

  In Tamil Nadu 100 lakh M.T. of fruits & vegetables, 75 lakh M.T. of food grains, 3 lakh M.T. of spices and condiments, 5 lakh M.T. of plantation crops are produced. The production of these produces by adopting advanced technologies likely to increase by 30% in the next 5 years. Out of the total production 8-10% of food grains, 30-35% of fruits and vegetables are wasted due to nonavailability of proper
storage/cold storage facility. Due to this farmers get 15-25% less price for their produce. To minimize post harvest losses of agricultural produce, especially fruits and vegetables, cereals, spices and plantation crops, it is proposed to set up Cold Chain through public-private participation utilising NABARD fund and NHB subsidy in 15 places. These cold chains will be established taking into consideration the proximity of the vegetable producing area, trading area, public places like community centres, agricultural extension centres etc.

- **Food Processing Industries**

  Processing of food eliminates wastage of agricultural produce to a greater extent. Food processing is gaining momentum as food-processing industries ensure steady and better price to the farming community as well as availability of the commodities in processed form to the consumer throughout the year. By cultivation of good quality processable agricultural produce the farmers stand to gain better returns and employment opportunity. The Agricultural Marketing and Agri Business department acts as a Nodal agency for Ministry of Food Processing Industries, Government of India. Food Park at Dindigul District, Nilakkottai Industrial Estate is being set up at a total cost of Rs.13.00 crores. In Total, from Tamilnadu 441 proposals worth Rs.555.93 crores to establish food processing related projects have been forwarded to the Ministry of Food Processing Industries, Government of India with recommendations for grant of Rs. 97.51 Crores. So far an amount of Rs. 42.95 Crores grant has been released for 197 projects.

- **Tamil Nadu Small Farmers Agri-business Consortium (TNSFAC)**

  The main objective of TNSFAC is to link the small farmers to technologies as well as to market in association with private, corporate, co-operative sectors, by providing both forward and backward linkages. The venture capital assistance of Rs.563.77 lakhs for 20 projects with a project cost of Rs. 4909.51 lakhs has been sanctioned by Small Farmers Agri-business Consortium.
**Tamil Nadu State Agricultural Marketing Board**

The important functions of the Board are as follows:

- **Publicity and Propaganda**

  Tamil Nadu State Agricultural Marketing Board is carrying out publicity and propaganda work highlighting the advantages of selling agricultural produce through Regulated Markets through publicity wing at Chennai, Madurai, Coimbatore and Tiruchirappalli.

- **Training to Farmers and Staff**

  The training centre of Tamilnadu State Agricultural Marketing Board Chennai is functioning at Salem in an extent of 2.25 acres of land. This Training Centre caters to the training needs of the Market Committee employees and the farmers. Three different training programmes, viz; Graders Training, Market Committee Employees Refresher Training and Personal Contact Programme are conducted by this Training Centre. The grader training is conducted for the employees of the market committee for 30 days duration in 3 batches / year, comprising of 60 employees. The refresher training of 28 days duration is conducted for the Staff working in market committees @ 1 batch/year comprising of 20 persons. The Personal contact programme of 3 days duration is conducted for the farmers in 5 batches (20 farmers / batch) for 100 farmers. During this year 10,010 farmers are to be trained in the post harvest technologies, grading, food processing etc. at a cost of Rs. 52.50 lakhs. So far 3220 farmers have been trained and this will be continued. During the year 2008-09 10,000 farmers are to be trained in the post harvest technologies, grading and food processing etc. at a cost of Rs. 52.50 lakhs.

- **Establishing Marketing Endowment Chair at Tamil Nadu Agricultural University**

  Tamil Nadu State Marketing Board has created an Endowment Chair at the Centre for Agricultural and Rural Development Studies, TNAU, Coimbatore, with a corpus fund of Rs.50.00 lakhs. 29 Various research studies and 19 training programmes have been conducted for the Department Officers and farmers, utilizing the interest accrued from corpus fund deposit.
• **Construction Works**

The Engineering wing of the department execute civil works such as construction of office buildings, rural godowns, auction platform, shopping complex, agricultural input shops, payment counters, rest sheds, water supply, toilet facilities, internal roads, godowns, compound wall, etc. in the Regulated Markets.

• **Market Development Fund**

The Tamil Nadu State Agricultural Marketing Board derives its fund resource from the Market Committees. The Market Committees contribute 15% of their receipts to the Board. Fifty percent of this amount is set apart as Market Development Fund, from which expenditure towards market developmental activities including training / publicity and propaganda are met.

• **Domestic and Export Market Intelligence and Guidance Cell at Tamil Nadu Agricultural University**

Agricultural Produce Domestic and Export Intelligence Guidance Cell has been established in the Tamil Nadu Agricultural University at a cost of Rs.44.00 lakhs from the Tamil Nadu State Agricultural Marketing Board. The Cell would collect details on prices of major commodities at domestic and international markets, analyse and forecast future domestic and export prices. The Cell transmits the forecast prices prevailing in other states and in the forthcoming months to the regulated markets and farmers. The Cell by providing this information helps the farmers to plan the cropping pattern and the right time and right market to sell their produce. This cell has been networked with the Agricultural Production and Marketing Information Centres established in regulated markets.

• **Irrigated Agriculture Modernization and Water Bodies Restoration Management (IAMWARM)**

IAMWARM Project is a World Bank assisted project. This project is being implemented in the selected 63 sub basins over a period of 6 years (2007-13). In the first year (2007-08), this project has been implemented in the 9 sub basins at a cost of Rs. 8.83 Crores. The projected cost for 63 sub basins is Rs. 24.84 Crores. During
the year 2008-09 the project will be implemented in another 16 basins at a cost of Rs. 209.5 lakhs. Under this project, the following components like Drying yard, Storage shed, Collection Centre, Pack House, Agri Business Centre, Goods Auto, Mini Lorry, Moisture Meter, Weighing Scale, Dunnages and Tarpaulin will be provided to benefit the water users Association. Among the 250 groups, 210 groups for agricultural commodity and the remaining 40 groups for horticulture commodity were formed. Under this scheme, 16 interface workshops, 15 outside the state exposure visit, 15 inside the state exposure visit, 14 post harvest technology training were also completed. In addition to that, 7 memorandum of understanding between farmers and entrepreneurs were signed.

3.15 Major Agricultural Crops Cultivated In Tamilnadu

Agriculture is the mainstay of the people in the district. The major grown in the district are paddy, groundnut, cotton, sugarcane, tapioca and cumbu. The production of some of the major crops with extent coverage is shown below:

Paddy

Paddy is the principal crop extensively cultivated in most of the districts of the state having a unique three-season pattern viz Kar/Kuruvai/Sornavari (April to July), Samba/ Thaladi/Pishanam (August to November) and Navarai/ Kodai (December to March). Paddy accounted for 33.1% of the total cropped area in the state during 2014-15. Thiruvarur district is at the top with an area of 166252 ha followed by Thanjavur district with 162938 ha and Nagapattinam district 157855 ha.

Jowar (Cholam)

Jowar known as Cholam in Tamilnadu was grown in about 238476 ha constituting 4.3% of the total cropped area of the state. Jowar is sown in both under rain-fed as well as irrigated onditions. Coimbatore, Dindigul, Trichirapalli, Thiruppur, Karur, Salem, Dharmapuri, Madurai, Theni, Namakkal and Virudunagar districts have contributed 84.0% of the total area under this crop in the state during 2014-15.
**Bajra (Cumbu)**

Bajra known as Cumbu in Tamilnadu is generally sown under rain-fed conditions in the state. The area under the crop during 2014-15 is 54427 ha constituting 1.0% of the total cropped area in the State. Bajra is generally grown in Thoothukudi, Villupuram, Madurai, Theni, Virudhunagar, Thiruvannamalai, Karur, Cuddalore and Dindigul districts that together accounted for 83.1% of the total area under this crop during 2014-15.

**Ragi**

The area under Ragi constitutes about 1.5% of the total cropped area in the state in 2014-15. Krishnagiri, Dharmapuri, Salem, Erode and Vellore districts together accounted for 94.5% of the total area of 82335 ha under this crop during 2014-15. The Krishnagiri and Dharmapuri districts alone share 71.1%.

**Maize**

Maize is the major contributor accounting for 88.0% (244159 ha) of the total area under other cereals. It is mainly grown in Dindigul, Perambalur, Thiruppur, Salem, Virudhunagar, Erode, and Thoothukudi districts and they together share 69.7% of the total area under this crop in the state.

**Korra**

Korra crop accounted for 0.4% (1074 ha) of the total area under other cereals. Major part of Korra is grown in the districts of Salem, Villupuram, Virudhunagar and Madurai.

**Varagu**

Varagu crop is mainly sown under rain-fed conditions in the districts of, Cuddalore, Villupuram and Ariyalur. The area under Varagu contributed 2.1% (5930 ha) of the total area under other millets.
Samai

Samai crop covers 8.0% (22292 ha) of the total area under other cereals. Samai crop is generally sown in less fertile soil as a mixture crop with pulses throughout the year regardless of the seasons. Dharmapuri district alone shares 51.0% of the Samai area in the state. Apart from this, other cereal Kudiraivali is also grown in Tamilnadu, mostly in Madurai, Virudhunagar, Thoothukudi and Ramanathapuram districts. And Panivaragu is grown mostly in Salem district.

Pulses

Pulses of the 3034124 ha under Foodgrains, the area under Pulses was 535819 ha which constitutes 17.7%. These crops can be raised both in rainfed and irrigated conditions. They comprise of Red gram, Green gram, Blackgram, Horsegram, Bengal gram, Cowpea, Mochai, Naripayaru etc.

Blackgram

Blackgram is one of the important pulses grown in both Kharif and Rabi seasons. It accounts for 48.5% of the total area under pulses during the current year. This crop was extensively grown in Nagapattinam, Cuddalore, Thiruvarur, Toothukudi, Thanjavur and Villupuram districts and these districts together accounted for 79.8% of the total area under the crop during 2014-15.

Greengram

Greengram is one of the major pulses widely consumed next to Blackgram. It is grown both in Kharif and Rabi seasons. The crop was extensively cultivated in Thiruvarur, Nagapattinam, Thoothukudi, Virudhunagar and Tirunelveli districts which together accounted for 76.1% of the total area under this crop in the state during 2014-15.

Redgram

Redgram is sown mainly under rain-fed condition. Vellore district stands first (7648 ha) in the cultivation of Redgram with 28.8% of the total area under this crop during 2014-15.
Horsegram

Horsegram Crop is grown both in Kharif and Rabi Seasons. Krishnagiri and Dharmapuri districts are the main districts in the cultivation of Horsegram with 50.1% of the total area under this crop during 2014-15.

Bengalgram

Bengalgram is mainly sown under rain-fed condition. Thiruppur and Coimbatore are the main districts in the cultivation of Bengalgram with 76.7% of the area under the crop in the state during 2014-15.

Sugarcane

Sugarcane is the most important commercial crop grown in the State. Out of 293329 ha of area under Sugarcane, 54.6% is planted and 45.4% is Ratoon. Villupuram, Erode, Cuddalore, Thiruvannamalai, Namakkal, Dharmapuri, Vellore and Salem districts together accounted for 57.8% of the total Sugarcane area of the state during 2014-15. The area, production and yield rate of Sugarcane for the year 2014-15.

Chillies

Chillies is another important commercial crop grown in the State. This is mainly grown in Ramanathapuram and Thoothukudi districts and sparsely grown in almost all other districts. These two districts together share 59.4% of the total area under this crop during 2014-15.

Potato

Potato is a major vegetable widely consumed throughout Tamilnadu whereas it is grown only in the hilly areas of Dindigul, The Nilgiris, Krishnagiri and Erode districts. Dindigul and The Nilgiris districts together constitute about 85.8% of potato area.
**Banana**

Banana is the third trinity of Fruits and is also grown all over the State. Banana is the most widely consumed and is available in all seasons and in different varieties in the State. The Total area under Banana is 113681 ha in the state during 2014-15. Erode, Thoothukudi, Coimbatore, Tirunelveli, Trichirapalli, Kanyakumari, Vellore and Theni districts together accounted for 59.4% of the total area under this crop during 2014-15.

**Mango**

Mango is one of the trinity of Fruits in Tamilnadu and is a seasonal one. It is generally grown under rain-fed conditions in the state. The area under the crop during 2014-15 is 132697 ha in the State. Mango is generally grown all over the state and concentrated specifically in the districts of Krishnagiri, Dindigul, Vellore, Tiruvallur, Dharmapuri and Theni that together accounted for 66.7% of the total area under this crop during 2014-15.

**Groundnut**

Groundnut is the major crop under oilseeds accounting for 8.4% of the total cropped area in the state during 2014-15. It is raised as both rain-fed as well as irrigated crop. Thiruvannamalai, Villupuram, Vellore, Namakkal, Salem, Erode, Pudukottai and Kancheepuram districts constitute 64.9% of the area under groundnut in the state during 2014-15.

**Coconut**

Coconut is a perennial crop raised extensively in Coimbatore, Thiruppur, Thanjavur, Dindigul, Kanyakumari, Vellore, Theni, Tirunelveli, Salem, Krishnagiri and Madurai districts. The area under coconut in these districts accounted for 76.6% of the total area under this crop during 2014-15.
**Gingelly**

Next to Groundnut and Coconut, Gingelly is the major oilseed crop in the state. Erode, Thanjavur, Karur, Villupuram Cuddalore and Salem districts accounted for 62.9% of the total area.

**Cotton**

As a commercial crop different varieties of cotton are grown to the extent of 104095 ha in the state during the year under report. The major cotton growing districts are Perambalur, Salem, Tiruchy, Dharmapuri, Virudhunagar, Vellore and Villupuram together accounted for 68.6% of the total area under cotton during 2014-15.

**Cashewnut**

Cashewnut is the most important commercial crop in the State. It was grown in about 99043 ha in the state during 2014-15. Cashewnut is sown mostly in sandy soil conditions. Perambalur and Cuddalore are the main districts and have contributed 62.1% of the total area under this crop in the state during 2014-15.

**3.16 Profile of the Study Area**

Villupuram district is the 23rd District of the State Tamil Nadu. It has been bifurcated from the erstwhile composite South Arcot District and commenced its function from 30th September 1993 with its Head Quarters at Villupuram. It is the largest District in Tamil Nadu which is predominantly agrarian. The total geographical area of the district is around 7011 sq kms.

The district is situated in the northern part of Tamil Nadu and close to the state capital of Chennai in a distance of about 100 kms from its north border. The district’s head quarter Villupuram is about 160 kms from Chennai. The boundaries of the District are Bay of Bengal and the Union Territory of Puducherry by the East and Kancheepuram and Thiruvannamalai District by the North, Cuddalore District by the South and West by Dharmapuri and Salem Districts.
At present Villupuram district comprises of 1485 Revenue Villages, 4 Revenue Divisions, 13 Administrative Taluks, 22 Blocks, 15 Town Panchayat Unions, 1099 Village Panchayats and 3 Municipalities.

The General geological formation of the District appears to be simple. The greater part of it is covered by the metamorphic rocks belonging to Genesis family. There are also three great groups of sedimentary rocks belonging to different geological periods. The Kalrayan Hills in the North represents a continuous range of hills covered with some thorny forests and vegetation. Among the hills, the most beautiful part of the district lies, round about the Gingee Hills.

3.17 Education

School education facilities are available in the district through 1777 primary schools (including nursery schools) 311middle schools, 150 high schools, and 100 higher secondary schools. Regarding higher education, Arts Colleges, engineering Colleges, Poly-Techniques, Industrial Training Institute and Teacher Training Institutes are available in the district. The Government has run hostels for boys and girls for SC., ST., MBC and Backward classes. The literacy rate of Villupuram district is 64.7 per cent.

3.18 Industrial Climate.

There are 21 large and medium scale units in the district; majority of them are located in Villuppuram, Tindivanam and Kallakurichi Taluks. There is no industrial estate in the district. Only tiny match sheds constructed by SIDCO are located at Kallakurichi – 55 sheds. Thiyagadurugam – 22 sheds and Tirukoilur – 10 sheds.

3.19 Soil.

The soil formation of the district is mainly red soil, sandy loam and block cotton soil.
3.20 Water Sources

Gadilam River which flows through Thirukoilur Taluk, Malattar River which joins Gedilam before flowing into the Bay of Bengal, Pennar River which flows through Thirukoilur and Villuppuram Taluks, Gomukhi River falling into Velar River in Cudalore District, Sankaraparani River which rises in Gingee Taluk and flows through Villupuram Taluks are the main rivers flowing through the District. The rivers are only seasonal and none of them is perennial. These rivers could not be used for irrigation purpose to the expected level because of low precipitation.

Vidur and Gomukhi reservoirs are located in this district with the ayacut area of 1295.02 ha. and 2023 ha respectively. Water from these reservoirs is used for irrigation purposes only in this district.

3.21 Climate and Rainfall

The maximum and minimum temperature in the district is 36 and 21 degree Celsius respectively. The average rainfall of the district is 1060.30 mm. The rainfall is heavier in the coastal area compared to interior areas. About 93.82% of the normal rainfall is received during the North East and South West monsoon seasons. Normally the district does not get heavy rainfall with the exception of Marakkanam and Vanur blocks. While in Kandamangalam and Koliyanur blocks, the rainfall is moderate, it is scanty in Kallakurichi and Sankarapuram Blocks.

3.22 Irrigation

As the rivers in the district are not perennial, the major sources of irrigation are tube wells and open dug wells. The net irrigated area in the district is 2.00 lakhs hectares which forms 27.7% of the total area of the district and 49.85% of the net cultivated area of 3.60 lakhs hectares. River irrigation account for less than 5% of the total irrigated area and the district is largely dependent on ground water and tanks. Out of the 2.48 l lakhs hectare meters of utilizable water recharge around 2.05 lakhs hectare meters have already been utilized leaving a balance of 0.43 lakhs hectare meter which can be economically exploited. The major sources of irrigation and extent of coverage is given in table 3.1
Table 3.1  
**Details of Sources of Irrigation**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Sources of irrigation</th>
<th>No. of Structures</th>
<th>Coverage (in ha.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dug Wells</td>
<td>155,493</td>
<td>103,073</td>
</tr>
<tr>
<td>2</td>
<td>Tube Wells</td>
<td>22,331</td>
<td>40,990</td>
</tr>
<tr>
<td>3</td>
<td>Tanks</td>
<td>2,085</td>
<td>49,920</td>
</tr>
<tr>
<td>4</td>
<td>Canals</td>
<td>196</td>
<td>5,449</td>
</tr>
</tbody>
</table>

*Source: District profile 2015.*

3.23 Electricity

There is no power Generation by Electricity Board in Villupuram district. But the Electricity Board purchased power from two private power units located at Panchalam. There are 48 transformers distributing the electricity to the urban and rural areas. All the towns, villages, hamlets and tribal villages are electrified. Out of the total power consumed in the district, about 63.7 per cent goes to agriculture, 13.7 per cent goes to industries and the balance of 22.6 per cent to households, public lighting, etc.

3.24 Land Utilizations

Out of the total land area of 7.22 lakhs hectares, an extent of about 3.60 lakhs hectares is utilized for cultivation. This about 49.85 of the land area is utilized for cultivation. The waste land (Category 3&5) available in the district is 77810 ha. Vast stretches of waste land are available in Gingee, Kallakurichi, Marakkanam and Vanur blocks.

3.25 Hills and Forests

Gingee and Kalvarayan Hills are the two hills in the district. Forest areas in the district constitutes about 9.9% of the total area of the district which spread in the areas bordering Salem, Dharmapuri and Thiruvannamalai Districts with divisions of reserve forest, interface forest and social forest. Teak wood rose wood and sandal
wood trees are found to be grown in the hills. In the Kalvarayan hills and Gingee areas some medicinal plants are grown. In the social forest areas, trees raised are mainly for firewood and paper making. Babul, Eucalyptus and Casuarinas are found to be grown in the district. In some pockets of the district, cashew is also grown.

3.26 Agriculture cultivation in the study area

The total Geographical area of the district is around 7011 Sq.Kms. of which except Kalrayan and Gingee Hills the entire District is characterized by plains. Major portion of the plains is utilized for agricultural purpose. In the hilly regions, tree like teakwood, sandalwood, rosewood, etc., are found to be grown. Most of the forests in the District lie in Kallakurichi and Thirukoilur Taluks. On the East, the Bay of Bengal coastline extends to about 30 Kms in Marakkanam and Vanur Blocks. The Details of agriculture produces cultivated in the study are is depicted in table 3.2.

**Table 3.2**

Details of Crops Cultivation in Villupuram District

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Major Crops</th>
<th>Production (in MT)</th>
<th>Area (in hectare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Paddy</td>
<td>815,986</td>
<td>178161</td>
</tr>
<tr>
<td>2</td>
<td>Cholam</td>
<td>146,545</td>
<td>166363</td>
</tr>
<tr>
<td>3</td>
<td>Groundnut</td>
<td>184,667</td>
<td>79804</td>
</tr>
<tr>
<td>4</td>
<td>Gingelly</td>
<td>8,516</td>
<td>9897</td>
</tr>
<tr>
<td>5</td>
<td>Sugarcane</td>
<td>422,487</td>
<td>33175</td>
</tr>
<tr>
<td>6</td>
<td>Cotton</td>
<td>1,167</td>
<td>3965</td>
</tr>
<tr>
<td>7</td>
<td>Cumbu</td>
<td>60,705</td>
<td>58194</td>
</tr>
<tr>
<td>8</td>
<td>Raggee</td>
<td>7,875</td>
<td>2329</td>
</tr>
<tr>
<td>9</td>
<td>Tapioca</td>
<td>392,236</td>
<td>9489</td>
</tr>
<tr>
<td>10</td>
<td>Pulses</td>
<td>64426</td>
<td>29723</td>
</tr>
<tr>
<td>11</td>
<td>Maize</td>
<td>46825</td>
<td>11353</td>
</tr>
<tr>
<td>12</td>
<td>Sunflower</td>
<td>292,636</td>
<td>2426</td>
</tr>
</tbody>
</table>

*Source: District profile 2015*

The other important crops grown in Villupuram District are cashewnut, blackgram, guava, banana, turmeric, coriander, brinjal and coconut.
3.27 Horticulture

There is a very good scope of development of horticulture in the district. Tapioca and cashew are the most important horticultural crops accounting for major area under horticulture in the district. Through Integrated Horticulture Development Programme, the Department of Horticulture is bringing more areas under horticultural crops. Mango is cultivated mainly in about 561 hectares. Under Central Government aided Cashew Development Programme, plan has been chalked out to increase the area under cashew cultivator.

3.28 Sericulture

In the district around 100 farmers are engaged in Sericulture and about 800 acres are under mulberry cultivation. For sericulture development, there are three technical service centers at Gingee, Ulundurpet and Villuppuram. Besides there are one Government reeling center and a cocoon market at Villuppuram. Silk reeling facilities are to be developed in the district.

3.29 Fisheries

The coastal length of the district is about 30 Kms in Marakkanam and Vanur blocks. There are about 19 fishermen co-operative societies covering 20 villages in Villuppuram District. The fishermen population is estimated at 13998 in the district.

3.30 Livestock

Since Villuppuram District is predominantly agrarian, plough animals, buffaloes and cows are widely present. There is good scope of dairy development and sheep/goat rearing.

3.31 Marketing network

There are 27 regulated markets, 6 marketing societies, 6 Sugar mills, 228 PACBs, 3 Farmers' Service Societies (FSS) and 5 Large Sized Adivasi Multipurpose Societies (LAMPS) and 11 Uzhavar Sandhai functioning in the district providing marketing support.