

CONSTRAINT ANALYSIS IN THE UTILIZATION OF AGRICULTURAL MARKETING INSTITUTIONS WITH SPECIAL REFERENCE TO REGULATED MARKET (RM)

1. Introduction

Marketing is as critical to better performance in agriculture as farming itself. Therefore, market reform and marketing system improvement ought to be an integral part of policy and strategy for agricultural development. Agricultural marketing was, till recently, not fully accepted as an essential element in agricultural development in the countries of Asia and the Far East. Although options differ as to the extent and precedence, there was general agreement till 1970 that the question of markets for agricultural commodities had been neglected. Agricultural marketing occupies a fairly low place in agricultural development policies of developing countries. The National Commission on Agriculture (1976) had emphasised that it is not enough to produce a crop or an animal product; it must be satisfactorily marketed.

2. Need for Understanding

A decision on an appropriate strategy, the evolution of a proper policy and a choice of policy instruments calls for a continual flow of advice, information and assessment of the existing system. Every system generates impulses as a result of environmental changes. These impulses have to be observed, recorded, analysed and interpreted for the benefit of the policy makers. A study of the agricultural marketing system is necessary for an understanding of the complexities involved and the identification of bottlenecks with a view to providing efficient services in the transfer of farm products and inputs from producers to consumers. An efficient marketing system minimizes costs, and benefits all the sections of the society.

The expectations from the system vary from group to group; and, generally, the objectives are in conflict. The efficiency and success of the system depends on how best these conflicting objectives are reconciled. Farmers want the marketing system to purchase their produce without loss of time and provide the maximum share in the consumer's rupee. They want the maximum possible price for their surplus produce from the system. Similarly, they want the system to supply them the inputs at the lowest possible price. The consumers of

agricultural products are interested in a marketing system that can provide food and other items in the quantity and of the quality required by them at the lowest possible price. However, this objective of marketing for consumers is contrary to the objective of marketing for the farmer-producers.

Market middlemen and traders are interested in a marketing system which provides them a steady and increasing income from the purchase and sale of agricultural commodities. The objective of market middlemen may be achieved by purchasing the agricultural products from the farmers at low prices and selling them to consumers at high prices. The objectives and expectations of all the three-groups of society- producers, consumers and, market middlemen – conflict with one another. All the three groups are indispensable to society. The government has to act as a watch –dog to safeguard the interests of all the groups associated in marketing. It tries to provide the maximum share to the producer in the consumer's rupee; food and other farm products of the required quality to consumers at the lowest possible price; and enough margin to market middle men so that they may remain in the trade and not think of going out of trade and jeopardise the whole marketing mechanism. Thus, the government wants that the marketing system should be such as may bring about the overall welfare to all the segments of society.

The overall objective of agricultural marketing system in a developing country like India should be to help the primary producers viz., the farmers getting remunerative prices for their produce on the one hand and to provide right type of goods at the right place, in the right quantity and quality at a right time and at right prices to the processors and/or ultimate consumers on the other.

3. New Role of Agricultural Marketing

Agricultural marketing scenario in the country has undergone a sea-change over the last five decades owing to the increases in the output of agricultural commodities and consequently in their marketed surpluses; increase in urbanization and income levels and thereby changes in the pattern of demand for farm products and their derivatives; slow and steady increase in the link-ages with the overseas markets; and changes in the form and degree of government intervention in agricultural markets. Therefore, the framework under which agricultural produce markets function and factors which influence the prices received by the farmers now need to be

understood in a different perspective compared to that in the past. The role of marketing now starts right from the time of decision relating to what to produce, which variety to produce and how to prepare the product for marketing rather than limiting it to when, where and to whom to sell.

Differences in Marketing Of Agricultural And Manufactured Goods

The marketing of agricultural commodities is different from the marketing of manufactured commodities because of the special characteristics of the agricultural sector (demand and supply) which have a bearing on marketing.

4. Importance of Agricultural Marketing

Agricultural marketing plays an important role not only in stimulating production and consumption, but in accelerating the pace of economic development. Its dynamic functions are of primary importance in promoting economic development. For this reason, it has been described as the most important multiplier of agricultural development.

The agricultural marketing system plays a dual role in economic development in countries whose resources are primarily agricultural. Increasing demands for money with which to purchase other goods leads to increasing sensitivity to relative prices in the part of producers, and specialization the cultivation of those crops on which the returns are the greatest, subject to socio-cultural, ecological and economic constraints. It is the marketing system that transmits the crucial price signals. On the other Hand, and in order to sustain the growth of the non-agricultural sector, resources have to be extracted from the agricultural sector- physical resources to guarantee supplies of food and raw materials for the agro-industry and financial resources for investment in non-farm economy as well as for reinvestment in agriculture. The various influences of agricultural marketing system are as follows

- Optimization of Resource use and Output Management
- Increase in Farm income
- Widening of Markets
- Growth of Agro-based Industries
- Price Signals

- Adoption and Spread of New Technology
- Employment Creations the
- Addition to National Income
- Better living
- Creation of Utility

5. New Emerging Problems in Agricultural Marketing

Development in the field of agriculture, popularly known as the green/white/yellow/blue revolutions, has given rise to these revolutions. The farmer-producers should be assured of a fair price for their produce, failing which they may lose the incentive to increase agricultural production. A fair price for the produce may be assured when there is an orderly marketing system in the country. But an orderly marketing system can be created only when the problems, which have merged with the advent of the green revolution, are effectively tackled. There is an urgent need in the present context for tackling the emerging problems of agricultural marketing more resolutely and efficiently than ever before. The improvement in the domestic marketing system has assumed special significance with the launch of new economic policy in 1991 and opening up of the external trade regime. The important problems which have emerged in the recent past pertain to the following areas:

i) Increase in Production levels and Market Arrivals

With increased market arrivals, and in order to enforce strictly market regulations, it is necessary that a large number of market yards should be developed in rural areas with all the necessary marketing facilities. Without spacious market yards, it is not possible to centralise and effectively supervise the transactions taking place in the area. The development of these spacious market yards is also essential for the performance of various marketing functions, such as grading, cleaning, serving and weighment of the produce. Recently, some market committees have constructed spacious market yards, but a majority of market committees do not have them because of the paucity of funds and the non-availability of land.

ii) Price Instability

Agricultural prices are very unstable and fluctuate violently. These prices fall in the post-harvest months and increase later in the year. This situation has worsened with the increased market arrivals as a result of the emergence of surpluses, especially of wheat and rice. The increasing instability in prices adversely affects the income of farmers as well as the tempo of increasing production. There is, therefore, a need for reducing price instability. Several steps may be taken for farmers to get a better share in the consumer's rupee. Some of the steps to check price instability are: fixation of minimum support prices of the crops by the government; purchase of the commodities if market prices fall below that level; and development of warehousing facilities to check post-harvest sales among the farmers.

iii) Market Intelligence

Market intelligence is another problem that has emerged and is an important shunt of orderly marketing. With the increased marketed surplus and opening up of trade, the importance of market intelligence has increased. Farmers market the produce in the village and nearby assembling centres out of their ignorance of the price prevailing in the nearby primary wholesale, secondary wholesale and terminal markets. Traders take the advantage of the ignorance of the farmer because they have full knowledge of the prices prevailing in other markets. This places the traders in a superior bargaining position.

The Directorate of Economics and Statistics, Government of India, as well as the State Departments of Agricultural Marketing have been collecting data on wholesale and retail prices at various markets and disseminating the information through periodical bulletins issued on the All India Radio and in the form of publications. However, this is not a satisfactory position because the information provided is stale in the sense that, by the time it reaches the farmers, the market prices have changed. Farmers are not able to take advantage of available intelligence because of their illiteracy. There is, therefore, an urgent need for refinement in the available market intelligence, so that announcements of market information may be made on the expected prices, arrivals, demand and supply.

There is also a need for the publication of "Market report" for each district to help the farmers to decide about their cropping and production programmes.

6. New Role of Marketing Organizations

Agricultural Marketing scenario in the country has undergone a sea change over the last two decades. Some of these changes which have significant bearing on the working of the regulated markets are:

- (i) Rapid increase in the marketable surplus on account of increase in agricultural production;
- (ii) Specialization in production in different agro-climatic zones;
- (iii) Emergence of relatively new concepts of markets of national importance; and
- (iv) Changes in the consumer preferences and tastes for food products.

These apart, the marketing policy regime for agriculture has undergone considerable changes since 1991 when a programme of economic reforms was launched in the country. The policy regime has changed both in terms of domestic market and external trade. The liberalization of domestic markets and changes in trade policy ought to subserve the objectives of further improvement in food and nutrition security at the macro as well as household level; reduction in levels of poverty; development of backward and less developed areas; reduction in inter-personal and inter-regional disparities in development and overall accelerated growth of the economy. The achievement of these objectives in the liberalized environment poses considerable challenge to various stakeholders particularly the cooperatives and such marketing organizations as Agricultural Produce Market Committees (APMCs), State Marketing Boards and State Directorates of Agricultural Marketing and agri business

It is in this context that there is a need to redefine the role of APMCs. Their existing activities were laid down in a situation of scarcity syndrome and when the domestic market for most of the agricultural commodities was insulated from the world market and government intervention was pervasive. No doubt, in the initial phases attention was needed on establishment of market yards, creation of various infrastructures in the yards and evolving systems and procedures for regularization of practices in the yards and sub-yards. The emphasis now, however, should shift to other important activities of topical relevance. With this in view, the present study has been taken up with the following terms of reference.

7. Performance of Various Marketing Institutions and Their Activities

There are many initiatives and efforts on development of agricultural marketing in Tamil Nadu through the organization such as Tamil Nadu State agricultural marketing board, such as Regulated markets, farmers market etc. The achievements, performance and the lacunas of some of the major marketing activities and schemes of the eleventh plan were revived and presented in this report.

7. 1. Regulated Markets

a. Tamil Nadu Agricultural Produce Marketing (Development and Regulation) Act 2011 and Rules 2011

In Tamil Nadu under the control of Directorate of Marketing and Agri. Business 21 Market Committees and 277 Regulated Markets are functioning by the governance of Tamil Nadu Agricultural produce Marketing (Regulation) Act 1987 and Rules 1991. This Act and Rules are in existence since 01.02.1991.

The Model Act, 2003 and Model Rules, 2007, which is formulated by Government of India, had been received for amending the existing State Act 1987 and Rules 1991.

b. The Model Act 2003 emphasis the following points:

- ❖ Establishment of Private Markets/ yards, Direct Purchase Centres, Consumer/ Farmers Markets for direct sale and promotion of Public Private Partnership in the management and development of agricultural markets in the country.
- ❖ Separate constitution for Special Markets for commodities like Onions, Fruits, Vegetables, Flowers etc.
- ❖ A separate chapter has been included in the legislation to regulate and promote contract-farming arrangements in the country.
- ❖ Prohibition of commission agency in any transaction of agricultural commodities with the producers.

- ❖ Redefines the role of State Agricultural Marketing Boards to promote standardization, grading, quality certification, market led extension and training of farmers and market functionaries in marketing related areas.
- ❖ Facilitates, E-trading, direct purchasing, export, forward/future trading and introduction of negotiable warehousing receipt system in respect of agricultural commodities.

c. Commodity notification and the facilities in the regulated markets

Through the state according to the importance of the crop in each area under the 21 marketing committees the major crops were notified. In total 40 agricultural commodities were notified based on the importance and area under the crops. It differs for each marketing committees, only few commodities were common to most of the marketing committees. The list of notified commodities is presented in the Annexure I.

The regulated markets were functioning under the marketing committees. In total 277 regulated markets were functioning under the 21 market committees. The details of the marketing committees and number of regulated markets were presented in the Annexure II. The facilities available at the regulated markets such as own land, god own, rural god own, trans- action shed, rural business hub, drying yard, automatic weighing and bagging machine, farmers rest shed, sanitary facilities and drinking water facilities were presented in the Annexure III.

d. commodity arrivals and RM performance

The commodity arrivals market fee and the pledge loan issued for the period 2006-07 to 2010-11 were presented in the following table. The commodity arrival has been revolving around 16 lakh tones and there was no marked improvement. But the market fee collected and the pledge loan issued to the farmers and the traders have shown a marked improvement.

Table.1. Commodity arrivals, Receipts and Pledge Loan issued in Regulated Markets

| Year | Commodity Arrivals (Lakh MT) | Market fee collected as Receipt (Rs. in crores) | Pledge loan issued | | | |
|---------|------------------------------|---|--------------------|------|--------------|------|
| | | | Farmers | | Traders | |
| | | | Rs. in lakhs | Nos. | Rs. in lakhs | Nos. |
| 2006-07 | 16.44 | 42.90 | 1086.06 | 1994 | 154.97 | 140 |
| 2007-08 | 15.57 | 47.70 | 1123.24 | 2449 | 135.26 | 149 |
| 2008-09 | 17.72 | 64.27 | 1670.48 | 2611 | 554.55 | 172 |
| 2009-10 | 16.02 | 62.27 | 1614.33 | 2302 | 89.00 | 98 |
| 2010-11 | 16.89 | 72.27 | 2034.86 | 2817 | 131.77 | 134 |

The performance of the regulated markets can be assessed based on the commodity arrivals. Of the 279 regulated markets only six markets was handling commodities more than fifty lakh tonnes. Maximum number of the Regulated markets i.e. 143 regulated markets were handling 1000 to 5000 tonnes of commodities per annum. The number of Regulated Market were classified based on the total volume of commodities handled during 2010-11 is presented in the following table.

Table.2. Performance of Regulated Market based on Arrivals (2010-11)

| Classification | No. of Regulated Market |
|---------------------|--|
| More than 50,000 MT | 6 |
| 10,000 – 50,000 MT | 26 |
| 5,000 – 10,000 | 41 |
| 1,000 – 5,000 | 143 |
| Less than 1,000 | 50 |
| No arrivals | 13 |
| Total | 279 (277 + 2 Sub RMs) |

e. Pledge loan to the RM stakeholders

Availability of the loan facilities will encourage the farmers to store their products until they get remunerative price. This task was undertaken by the regulated markets to encourage the farmers. Through the regulated markets the farmers and traders benefit through the pledge loan scheme. During distress sale in glut season the farmers can store their produce in the godowns of the Regulated Markets and avail pledge loan for a period of six months without any charge. Pledge loan is provided up to a maximum of Rs.1,00,000. The rate of interest for pledge loan is 5 per cent for farmers and 9 per cent for traders. The details of the

f. Tamil Nadu Farmers Development and Welfare Scheme

The agriculture has been an insecure source of the income to the farmers with high risk. In order to help the farmers or tenants who sell one or more than one metric ton of agricultural produce every year through Regulated markets are enrolled in this scheme and are become eligible for a grant of Rs.1,00,000 in case of death/ death due to snake bite. In case the eligible farmer or tenant loses both the hands / legs / eyes due to accident is eligible for a grant of Rs.75,000/-. In case of losing one hand / leg /eye or permanent hip disability due to accident the farmer or tenant is eligible for a grant of Rs.50,000/-. Farmers need not pay any premium to avail this facility in the scheme. The Market Committee concerned and the Tamil Nadu State Agricultural Marketing Board bear the premium amount of Rs.10 per individual per year equally.

g. Strengthening of Regulated Markets

During the eleventh plan the regulated markets were strengthened through construction of rural godowns, drying yards, auction sheds, transaction shed, provision of automatic weighing & bagging machines. The production of the agricultural commodities have been increasing and to meet out the requirements of farmers needs in marketing of their produce the Infra structural facilities have to be increased through more investments.

Table.3. Strengthening of Regulated Markets for the period from 2007-08 to 2011-12

| Year | Source of Finance | Target | | Achievement | | |
|----------|-------------------|-----------------|-----------------------|-----------------|-----------------------|--|
| | | Physical (No.s) | Finance (Rs.in crore) | Physical (No.s) | Finance (Rs.in crore) | |
| 2007- 08 | Market committee | 400 | 20.000 | 130 | 8.706 | Construction of 24 Rural Godowns, 100 Drying Yards, 5 Auction Sheds, 1 transaction shed |
| 2008-09 | Market committee | 400 | 20.000 | 43 | 7.751 | Construction of 35 Rural Godowns, 1 Transaction Shed and 7 Auction Sheds |
| 2009-10 | Market committee | 400 | 20.000 | 130 | 9.022 | Construction of 20 Rural Godowns, 100 Drying Yards, 5 Transaction Sheds, 5 Auction Sheds |
| | GOI (NADP) | | | 2 | 0.225 | 2 Automatic weighing and bagging machines |
| 2010-11 | Market committee | 400 | 20.000 | 5 | 1.851 | Construction of 5 Rural Godowns, |
| | GOI (NADP) | | | 172 | 11.425 | 20 rural godowns, 150 drying yards, 2 automatic weighing & bagging machine |

7.2. Farmers' Markets

The farmers market is a successful marketing strategy to empower the farmers as the traders and to increase the price for their produce by avoiding the intermediaries. Farmers' Market was introduced in 1999 for direct selling of fruits and vegetables at a fair price by farmers to consumers without any intermediaries. The first Farmers' Market was established at Madurai during 1999. In the year 1999-2000, 103 Farmers' Markets were opened, 50 Farmers' Markets were created during 2007 and 25 Farmers' Markets were created in 2010. At present, 179 Farmers' markets are functioning in Tamil Nadu. These Farmers' markets are being run at the expenses of the Market Committees. The farmers market has been one of the break through

which had reduced the gap between the producer farmer and the consumer. During the five year period the vegetable arrivals had increased from 3.21 lakh tones to 8.35 lakh tones and the value of products sold through the farmers market have increased from 297 crores to 1338 crores. The number of farmers and consumers benefited is also increased.

Table.4. Vegetable arrivals, value and No. of farmers and consumers benefitted

| Year | Total | | | | Average (per day) | | | |
|-----------|---------------------------|----------------|-----------------------|-------------------------|--------------------------|---------------|----------------|-------------------------|
| | Vegetable arrivals (LM.T) | Value (Crores) | No. of Farmers (Lakh) | No. of Consumers (Lakh) | Vegetable arrivals (M.T) | Value (Lakhs) | No. of Farmers | No. of Consumers (Lakh) |
| 2006-2007 | 3.21 | 297.95 | 22.25 | 601 | 882 | 82 | 6099 | 1.6 |
| 2007-2008 | 3.97 | 411.28 | 22.9 | 676 .5 | 1085 | 112 | 6273 | 1.8 |
| 2008-2009 | 5.45 | 657.15 | 25.03 | 901 .9 | 1609 | 192 | 7526 | 2.7 |
| 2009-2010 | 7.03 | 955.10 | 30.45 | 1214.4 | 1956 | 265 | 8432 | 3.4 |
| 2010-2011 | 8.35 | 1338.71 | 33.65 | 1511.05 | 2428 | 385 | 9706 | 4.4 |

a. Performance of Uzhavar Santhais

The performance of the farmers markets can be assessed based on the arrivals, as on June. 2011 the arrivals is presented in the following table. It was found that only four farmers markets were handling more than 70 tonnes per day. The maximum number of the farmers market handle 10 to 30 tonnes in 114 farmers markets. It should be considered that the 26 number of farmers markets handle only 3 to 5 tonnes which needs special attention. The details of arrivals in each Uzhavar Santhais is Presented in Annexure V.

Table.5. Performance of Uzhavar Santhais

| Vegetable arrivals / day in MTs) | No . Of US |
|-------------------------------------|---------------|
| >70 | 4 |
| 50 - 70 | 3 |
| 30 - 50 | 10 |
| 10 - 30 | 57 |
| 5 - 10 | 57 |
| 3 - 5 | 22 |
| <3 | 26 |
| Total | 179 |

b. Establishment of New Uzhavar Sandhais

Due to the success of the farmers market more representations was made from the farmers side, based on the demand another 50 farmers markets were initiated during 2009-10 with the financial support from the HNM scheme.

Table.6. Establishment of 50 New Uzhavar Sandhais (Farmers Market) (2009-10)

| Expenditure details | Total Cost (Rs. In lakhs) | NHM subsidy (Rs. In lakhs) |
|------------------------|------------------------------|-------------------------------|
| 50 Uzhavar Sandais | Rs.1102.40 | Rs. 187.5 |

c. Cold storages in Farmers' markets

The vegetables which were not sold on a day has to be stored in the farmers market or it has to be transported back to the farm. In order to solve these problems, the need for the storage facilities for the fruits and vegetables in the farmers market to avoid the losses was felt and the cold storages with 2 MT capacity were constructed at a cost of Rs.133.10 lakhs to prevent deterioration of fruits and vegetables in 22 Farmers' markets in fourteen districts, where sale of

fruits and vegetables exceed 15 MT per day during 2008. During 2009 cold storages with 2 MT capacity was constructed at Karur, Kumbakonam, Nanganallur, Hasthampatti, Palayankottai Farmers' markets by Trichy Regional Engineering College with the financial assistance from the world bank. The list of 22 farmers market where the cold storage facilities was created is presented in the Annexure IV.

7.3. National Agriculture Development Programme (NADP / RKVY)

The National Agriculture Development Programme (RKVY) - a 100% centrally sponsored programme aims at achieving 4% annual growth in agriculture and allied sector during 11th five year plan period. In this project, Department of Agricultural Marketing and Agri Business is focusing on aspects of Strengthening of Market Infrastructure and Marketing development. The detailed targets and achievements in the NADP Programme is presented in the Annexure VI.

Table.7.. Targets and Achievements in the NADP Programme

| Year | Financial (in Lakh Rs.) | |
|---------|----------------------------|-------------|
| | Allotment | Achievement |
| 2008-09 | 102.80 | 87.47 |
| 2009-10 | 350.00 | 350.00 |
| 2010-11 | 5192.85 | 2192.85 |

7.4. Status of Food Processing

The food processing is an important area of the present situation, where the value addition plays major role in the income improvement. It eliminates wastage of agricultural produce to a greater extent. Food processing is now gaining momentum as food-processing industries ensure steady and better price to the farming community as well as availability of commodities in processed form to the consumer throughout the year. Farmers can obtain better returns and employment opportunity by cultivation of good quality processable agricultural produce.

Department of Agricultural Marketing and Agri Business is the State Nodal Agency for the Ministry of Food Processing industries, Government of India. The Ministry of Food Processing industries, Government of India had been operating several plan schemes for the development of processed food sector in the country. The Scheme for Technology upgradation / modernization/ establishment being implemented by the Ministry of Food Processing Industries (MFPI) is aimed at upgradation of processing capabilities. Ministry of Food Processing Industry has decided to decentralize the implementation of the scheme for Technology Upgradation Establishment/ Modernisation of Food Processing Industries in the 11th Plan period *ie.* w.e.f. 1st April 2007 through Banks/ financial institutions to provide a thrust and wider coverage for food processing industries in the country and simultaneously decentralise the procedures for appraisal, grant of assistance and monitoring.

Being a State Nodal Agency different project proposals under Entrepreneur development programmes, Backward linkages/ contract farming, HACCP/ISO, Food processing training centre, Seminars and Exhibition on food processing, infrastructure development, setting up of Food testing laboratory and Food park etc., are being received, scrutinized and forwarded to the Ministry of Food Processing Industry, Government of India. The detailed Status of Food Processing Industries and Entrepreneurship Development Programme in Tamil Nadu is presented in the Annexure VII and VIII.

- Food Processing Industries: From Tamil Nadu (upto 2007-08) total number of 247 projects on food processing has been recommended and among them 112 projects has been sanctioned with the grant sanction amount of Rs. 3289.59 lakhs.
- Entrepreneur Development Program: Total number of 117 projects (2002-11) on EDP has been recommended and among them 54 projects has been sanctioned with the grant sanction amount of Rs. 97.66 lakhs.
- Food processing training center: Total number of 71 projects (2002-09) has been recommended and among them 34 projects has been sanctioned with the grant sanction amount of Rs. 93.22 lakhs.
- Seminar and exhibitions on food processing: Total number of 26 projects (2002-09) has been recommended and among them 7 projects has been sanctioned with the grant sanction amount of Rs.18.29 lakhs.

- Backward linkages/contract farming: Total number of 18 projects (2002-09) has been recommended and among them 8 projects has been sanctioned with the grant sanction amount of Rs. 77.37 lakhs.
- HACCP/ISO: Total number of 3 projects (2002-06) has been recommended and among them 2 projects has been sanctioned with the grant sanction amount of Rs. 3.81 lakhs.
- Infrastructure development for food processing courses: Total number of 12 projects (2002-09) has been recommended and among them 2 projects has been sanctioned with the grant sanction amount of Rs. 100.00 lakhs.

7.5. National Horticulture Mission

Tamil Nadu Horticulture Development Agency, Horticulture Department is the nodal agency for the National Horticulture Mission. Projects under Post Harvest Management component are being implemented through the Department of Agricultural Marketing and Agri Business. The NHM activity includes Training on Post harvest Management, Setting up of Electronic Flower Auction Centre, Terminal Markets, Creation of new uzhar sandhai and walk in coolers. The farmers' through Tamil Nadu have gained through the project and the details were presented in the Annexure IX, X and XI.

Construction of drying yards in villages

In order to minimize the post harvest losses, agricultural commodities have to be stored at optimum moisture content. For that purpose, drying yards are being constructed since 1997. So far, 1305 drying yards have been constructed at a total cost of Rs.26.09 crores for the benefit of farmers.

Market Complex for paddy

A Market Complex has been established exclusively for paddy at Mattuthavani in Madurai district in an extent of 9.85 acres at a total cost of Rs.17.06 crores. In this complex, 314 shops have been allotted for the traders of paddy, agricultural inputs and flowers.

Mega market at Ottanchathram

The Mega market was established in 15.50 acres at Ottanchathram of Dindigul District at the cost of Rs.308.20 lakhs vide G.O. No.312 Agriculture (AM.3) Department, dated 25.11.05.

50 shops of dimension 20' x 10' and 216 floor shops of dimension 20'x16' were constructed in the Mega market as per G.O.Ms.No. 37 Agriculture [AM.3 (I)] Department dated 27.2.2009. District Revenue Officer conducted tender for the above shops on 11.12.2009, and the total of 254 shops (48 shops and 206 floor shops) were allotted to the traders.

The entire area was divided into 15 blocks and the tender was finalized. In Gandhi Market 150 traders were trading. Among them 70 traders from Gandhi Market participated and were selected in the Mega market tender. Steps are being taken to allot shops for the remaining traders of Gandhi Market.

The District Administration has also taken steps to shift the traders of Gandhi Market to Ottanchathram Mega Market. The traders of Gandhi Market refuse to shift to Mega Market because, they are trading in Gandhi Market for a long time. The District Collector has convened a meeting on 20.9.2010 to convince traders and thereby the traffic congestion in and around Gandhi Market may be avoided. Steps are being taken by the District Administration to shift the Gandhi Market Traders to Ottanchathram Farmers Mega Market.

At present traders who have taken tenders are not occupied the shops and also not paid rent and Electricity charges till date. Because of this Rs.1.15 Lakh is due for Electricity Board. Hence the Market Committee Secretary has informed the traders that the unpaid rent and EB charges will be deducted from the Deposit amount and also the tender stands cancelled.

The Secretary, Dindigul Market committee informed that, rent allocation was cancelled due to lapse of validity period and action is being taken to get approval from the District Collector for fixing the date for re-tendering.

7.6. Terminal Market Complex (TMC)

To reduce the post harvest losses in perishables like fruits and vegetables and other agricultural commodities, it is proposed to establish a Terminal Market Complex (TMC) under Public Private Partnership (PPP) mode for the benefit of farmers and Traders.

Highlights of TMC:

The TMC will act as a Hub and Spoke Model as per the TMC Guidelines of Ministry of Agriculture, Govt. of India. In ‘Hub’ common Infrastructure facilities like “State of art”- Modernized grading and packing line, cold storage, Ripening chamber, Quality control lab, Electronic auction centre etc., will be developed. “Spoke” means Collection centers - which are located at production area with modern Infrastructure facilities. A minimum of 20 collection center has to be developed in catchment area of each TMC. ITCOT is the consulting agency for this project. State Government has to provide land for the establishment of HUB by long term lease/sale deed. As per the TMC Guidelines of GoI, and the Operation, Management, Development Agreement the subsidy will be released to the successful bidder in phased manner.

- Perundurai – terminal market complex
- Chennai terminal market complex
- Madurai - terminal market complex
- Flower auction centre at Kavalkinaru
- Establishment of vegetable market at Madurai

7.7. Agri Export Zones

Agri Export Zones have been established at 4 places by private anchor promoters with the modern infrastructure facilities like grading and sorting yard, cold storage, pack house, processing units and reefer vans for the direct export of value added agricultural produce, at the production centres. The anchor promoters of these Agri Export Zones have created modern

nursery and necessary processing and storage infrastructures in their respective zones and started commercial production.

a. Agri Export Zone for Cut Flowers

Agri Export Zone for cut-flowers has been established at Hosur in Krishnagiri district by a joint venture company of Tamil Nadu Industrial Development Corporation Limited (TIDCO) and private promoter M/s.TANFLORA at a cost of Rs.24.85 crores. During 2010-11 the firm M/s.Tanflora has done a turnover of Rs.3.20 crores worth cut-flowers

b. Agri Export Zone for Flowers

An Agri Export Zone for flowers at Udthagamandalam in the Nilgiris district has been established with the participation by M/s.Nilflora – a private promoter at a project cost of Rs.15.89 crores. M/s.Nilflora has done a turnover of Rs.1.60 crores worth flowers.

c. Agri Export Zone for Mango

Agri Export Zone for Mango at Nilakkotai in Dindigul District has been established by the anchor promoter M/s.Maagrita Export Ltd.at a cost of Rs.21.00 Crores. The firm M/s. Maagrita Exports Ltd. has done a turnover of Rs. 1.56 crores worth mango and mango pulp

d. Agri Export Zone for Cashew

Agri Export Zone for cashew at Panruti in Cuddalore district has been established by M/s.Sattva Agro Export Pvt. Ltd. at a project cost of Rs.16.54 crores. M/s.Sattva Agro Export Pvt. Ltd., has done a turnover of 1.03 crores worth cashew including domestic sale of Rs. 43.17 Lakhs, export sale of Rs. 8.78 Lakhs and the processing income of Rs. 51.01 Lakhs.

7.8. Specialized Market Complexes

The concept of specialized market complex was a essential in the present day competitive world. The value addition to agricultural produces fetch good price to farmers. This require good infrastructure like storage, grading, sorting, packing, drying yards, transaction sheds, auction halls, cold storage units etc., Graded produce is sold off quickly. The additional income

generated by the adoption of grading and standardization is more than the cost incurred in the process of grading and standardization.

Table.8.. Specialized Market Complexes

| Components | Total Project Cost (Rs.in Lakhs) | State Government fund (Rs. In Lakhs) | Tamil Nadu State Agricultural Marketing board (Rs. In Lakhs) |
|--|-------------------------------------|---|---|
| Establishment of market complex with Cold storage Facilities for Mango at Krishnagiri Regulated market | 100.00 | 24.00 | 76.00 |
| Establishment of Market Complex with cold Storage Facilities for Tomato at Palacode Regulated market. | 100.00 | 24.00 | 76.00 |
| Establishment of Market Complex with cold Storage Facilities for Grapes at Odaipatti Regulated market. | 100.00 | 24.00 | 76.00 |
| Establishment of Market Complex with cold Storage Facilities for Onion at Pongalur Regulated market. | 100.00 | 24.00 | 76.00 |
| Proposal for Establishment of Coconut Market Complex at Pattukkottai. | 400.00 | 24.00 | 376.00 |
| Total | 800.00 | 120.00 | 680.00 |

7.9. AGMARK Grading

The AGMARK scheme was set up by the Directorate of Marketing and Inspection, Government of India, under the Ministry of Agriculture. As per the Agricultural Produce (Grading and Marking) Act 1937, the Agmark Grading scheme is being implemented in Tamil

Nadu. Most of the Agricultural, Horticultural, Forest Products and Animal Husbandry by products are covered under Agmark Grading Scheme. The main objective of the scheme is to provide unadulterated foodstuffs to the consumers.

“Agmark” is the symbol of Quality and Purity and this scheme is voluntary one. The scheme is implemented as per the norms prescribed by Government of India. The Grade standards are prescribed for more than 192 Agricultural and allied products. In Tamil Nadu, the products under Agmark Grading are Rice, pulses, Ghee, Honey, Ground spices, Whole spices, Wheat products, Sago, Vegetable Oils, potato, oil cake etc., In Tamil Nadu there are 30 State Agmark Grading Laboratories are functioning under the control of Deputy Director of Agriculture (Agri business) for grading centralized and Decentralized commodities. One Principal Laboratory is functioning under the control of Commissioner of Agricultural Marketing and Agri Business. Check samples of State Agmark Grading laboratories are analyzed in Principal Laboratory.

Table.9. Quantity of commodities Graded and Grading charges

| Year | Quantity Graded (Qtls. in lakhs) | State Grading charges (Rs. in lakhs) |
|---------|-------------------------------------|---|
| 2006-07 | 11.74 | 38.52 |
| 2007-08 | 11.97 | 43.36 |
| 2008-09 | 14.34 | 33.78 |
| 2009-10 | 13.18 | 35.86 |
| 2010-11 | 13.71 | 41.94 |

7.10. Tamil Nadu Irrigated Agriculture Modernization and Water Bodies Restoration and Management (TN-IAMWARM)

The world Bank assisted TN-IAMWARM Project is being implemented in 63 sub basins of Tamil Nadu in phased manner over a period of 6 years from 2007-2008 to 2012-2013 at a total cost of Rs.24.84 Crores. An amount of Rs.24.39 Crores have been utilized for 3 phases of sub basins upto 2010-11.

As infrastructures are essential for executing the marketing activities, the Department of Agricultural Marketing and Agri Business has created so far, 258 infrastructures as per the World Bank guidelines *viz.*, 19-Agri Business Centers, 87-storage godowns, 138-drying yards, 13-collection centers and one pack house. The supporting equipments such as 52-moisture meters, 118-electronic weighing scales, 522- tarpaulins, 1985-dunnages, 19-computers with internet connection, 575-plastic crates, 8- goods auto and one mini lorry for logistics and are being utilized by Commodity group farmers. Farmers have been realized additional income for their produce by utilizing the above infrastructures.

Interface workshop is considered to be a platform for linking the farmers directly to the traders with face to face market orientation. In the sub basin area formation of commodity groups and Memorandum of Understanding between farmers and traders are the major activity for the realization of additional income by farmers. So far 1,108 commodity groups have been formed covering 14 major commodities and 677 Memorandums of Understanding have been made between farmers and traders. Under Information, Education, Communication and Capacity Building (IEC and CB) 670 trainings were conducted *viz.*, 218-technical trainings, 186-interface workshops and 266 exposure visits (169 exposure visits inside the state and 97-exposure visits outside the state). The details of Performance of TN-IAMWARM project from 2007-08 to 2010-11 and Agri Business Centers in Various Sub-Basins (2007-2013) is presented in the Annexure XII and XIII.

During 2011-12, the project will be implemented in phase III, IV and phase I- IV additional DPR sub basins with the financial outlay of Rs.4.59 crores for creation of various market infrastructures including collection centers, storage sheds, drying yards and dunnages for post harvest and value addition of major agricultural commodities like paddy, maize, chillies, pulses and oilseeds. Capacity Building activities and MoU will be formed between the commodity group farmers and traders to realize additional income by utilizing the above infrastructures.

Table.10. Activities proposed for the year 2011-2012 phase III, IV and Additional DPR Phase I to IV

| Sl. No. | Component | Target | |
|---------|----------------------|----------|--------------------------|
| | | Physical | Financial (Rs. In lakhs) |
| 1. | Infrastructures | 68 | 325.10 |
| 2. | Procurement of Goods | 1073 | 54.30 |
| 3. | IEC & CB activities | 164 | 60.88 |
| 4. | IAMWARM CELL | 2 | 8.00 |
| 5. | Advertisement | | 11.00 |
| Total | | 1307 | 459.28 |

Infrastructures : 15 Storage godowns, 39 Drying yards , 2 Storage godown cum drying yard, 3 Collection centres, 8 Laying kadappa stone in drying yard, 1 ABC compound wall.

Goods : 169 tarpaulin, 393 Dunnage, 20 Moisture meter ,22 weighing scale, 465 Plastic crates, 2 copra drier, 2 Coconut defibering unit, and Furniture.

IEC&CB : 4 Exposure visit outside the state, 34 Exposure visit inside the state, 75 Technical training and 45 interface workshops & 6 Awareness campaign.

IAMWARM Cell : 2 Computers, furnitures and special services.

8. Cold Storage Facilities In Tamil Nadu

Tamil Nadu produces approximately 163.52 lakh MT of fruits and vegetables. Due to heavy post harvest losses, there exists considerable gap between the gross production and net availability to the consumers. The post harvest loss is estimated at 25 to 40 per cent in respect of fruits and vegetables which is primarily due to non adoption of post harvest management technologies. The Post harvest losses start in the farm and travels along the procurement chain and the entire marketing channel. The cold storage facilities are the prime infrastructural component for such perishable commodities. Besides the role of stabilizing market prices and evenly distributing both on demand basis and time basis, the cold storage industry renders other advantages and benefits to both the farmers and the consumers.

The farmers get opportunity of producing cash crops to get remunerative prices. The consumers get the supply of perishable commodities with lower fluctuation of prices. Commercially apples, potatoes, oranges are stored on large scale in the cold storages. Other important costly raw materials like dry fruits, chemicals, essences and processed foods like fruit juice/pulp, concentrate dairy products, frozen meat, fish and eggs are being stored in cold storages to regulate marketing channels of these products. Cold Storage is a special kind of room, the temperature of, which is kept very low with the help of machines and precision instruments. Cold storage helps to preserve the perishable commodities of food items for a longer period with retention of the original colour, flavor and taste. However, each commodity or item has certain life and they cannot be stored even in a cold storage for indefinite period. Storage beyond certain period may not be economical as well as since payment of rent of cold storage increase the cost of the produce.

Hence cold storages are used for high value items or when prices crash down due to bumper crop or for such items which are grown during the season but there is a demand round the year or for products like meat, fish, milk products which are quickly perishable. Cold storages are being used for preservation of many food products since long. Their location has to be strategic and they should have easy access. Cold storages have demand all over the country. To extend the shelf life of fruits and vegetables, Tamil Nadu state has a total number of 201 cold storage units with the capacity of 2.2 Lakh MT owned by private entrepreneurs. Fruits and vegetables like mango, green chillies, tomato, hilly vegetables, milk and milk products, ready to

eat products, meat and meat products, fish and fish products, tamarind, dry chillies, spices etc., are being stored in these cold storages.

Department of Agricultural Marketing and Agri Business has established Small walk-in coolers of 2 MT capacity in 22 Uzhavar Sandhais for vegetables, fruits and flowers. Apart from this 2 MT capacity cold rooms is being installed in 5 Uzhavar sandhais by Trichy Regional Engineering College utilizing world bank funds. Also during 2010-11 specialized commodity markets with cold storages and commodity specific cold storages has been created in certain places. District wise Cold Storage Details is presented in the Annexure XIV.

Table. 11. Cold Storage Facilities in Tamil Nadu

| S.NO. | Details | No.of units | Capacity | Total Cost (Rs. In Lakhs) |
|-------|--|-------------|--------------|------------------------------|
| 1 | Established by the Department | 8 | 500 MT | 814.40 |
| 2 | Walk-in coolers established in 22 Uzhavar Sandhais | 22 | 44 MT | 133.10 |
| 3 | Walk-in coolers in uzhavar Sandhais by Trichy Regional Engineering college | 5 | 10 MT | -- |
| 4 | Established by pvt entrepreneurs | 201 | 2.18 Lakh MT | -- |
| | Total Capacity available | 231 | 2.19 Lakh MT | |

Facilities provided in the cold storage

- Pre cooling room
- Cold storage room (4 chambers of 25MT each)
- Washing ,grading and packing hall
- Sanitary facilities
- road and common facilities

- uninterrupted electricity for cold storage
- plastic crates for produce etc.,

Measurable outcome:

- Reduce the post harvest losses in fruits and vegetables.
- Graded and sorted fruits and vegetables fetch better price to farmers.
- Distress sales during glut season can be avoided.
- Encourage farmers to sell their produce to food processing industries.
- Value addition of the product is increased.
- Export options are also possible.

Table. 12. Cold storage facility created by Department of Agricultural Marketing and Agri Business

| S.No | District | Place | Capacity | commodity | Amount (Rs.in Lakhs) | Funding Agency |
|----------------------------------|-------------|--------------|----------|------------------|----------------------|----------------|
| MARKET COMPLEX WITH COLD STORAGE | | | | | | |
| 1 | Dharmapuri | Pallacode | 50 MT | Tomato | 100.00 | TNSAMB |
| 2 | Krishnagiri | Krishnagiri | 50 MT | Mango | 100.00 | TNSAMB |
| 3 | Theni | Odaipatti | 50 MT | Grapes | 100.00 | TNSAMB |
| 4 | Coimbatore | Pongalur | 50MT | Onion | 100.00 | TNSAMB |
| 5 | Coimbatore | Karamadai | 50 MT | Hilly Vegetables | 100.00 | NADP |
| 6 | Perambalur | Chettikkulam | 50 MT | Other Vegetables | 99.50 | NADP |
| COLD STORAGE UNIT | | | | | | |
| 7 | Salem | Maicheri | 100 MT | Tomato | 100.00 | NADP |
| 8 | Ramnad | Paramakudi | 100 MT | Chillies | 114.90 | NADP |
| | | TOTAL | 500MT | | 814.40 | |

9. Tamil Nadu Small Farmers Agri Business Consortium

The scheme for Agri Business development in the country is being implemented since, July 2005 in close association with Commercial Bank and State SFAC. This is a Central Sector Scheme for Agribusiness development through Venture Capital Assistance and Project Development Facility.

The primary task of TNSFAC is to link the small farmers to both technologies as well as market in association with private, corporate, co-operative sectors, if necessary by providing both backward and forward linkage. This consortium provides the needed link between individuals, private sectors, Farmers co-operative, Non Government Organizations and the Government in the field of agricultural and allied activities.

The main objective of TNSFAC is focused on increased production and productivity, value addition, provision of efficient linkages between producers and consumers, empowerment of rural people, availability of credit, access to technology and assured remunerative process for their produce through institutional development, funding research and development activities etc.

Under the above scheme, for setting agribusiness projects of Rs.50.00 lakhs and above with backward linkage for sourcing the raw material, Venture Capital assistance up to Rs.75.00 lakhs is offered by the Central Small Farmers Agri Business Consortium (SFAC), Ministry of Agriculture, Government of India.

To avail the above Venture Capital Assistance the industry should process or add value to high value Agri/horti crops and raw material should be directly procured from the farmers (Backward linkage). Thus the industry ensures assured market and good price to a group of farmers. As an incentive for helping the farmers in terms of assured market and good price SFAC provides VCA to the industry.

The quantum of Venture Capital Assistance would be

- 10% of the total project cost assessed by lending Banks (or)
- 26% of the project equity (or)
- Rs.75 lakhs whichever is less.

The VCA is to be repaid to SFAC (without interest) immediately after repayment of term loan to bank. If desired it can be repaid in four installments within one year of repayment of term loan with interest. (at the same rate of interest charged for term loan). Under Project Development Facility for preparing Detailed Project Report (DPR) for Agri Projects a maximum assistance of Rs.5.00 lakhs is provided by the SFAC empanelled consultants / institutions.

Tamil Nadu State Small Farmers' Agri Business Consortium has been constituted (as per Government order G.O. Ms.No.149, Agriculture (AM3) Department, dated 24.04.2003, Government of Tamil Nadu) with a Corpus fund of Rs.100.00 lakhs (Rs.50.00 lakhs from Government of Tamil Nadu and Rs.50.00 lakhs from Central SFAC) as a Public Private Joint Venture Society, in the interest of promoting and helping the farmers in strengthening the linkages and other aspects from farm gate to ultimate consumer market. The Board of Consortium has 16 members and the Agricultural Production Commissioner and Secretary to Government, Agriculture department is the Chairman. Both Central and State Governments have released the Corpus fund contribution and now there is a corpus fund of Rs.100.00 lakhs which earns a monthly interest of Rs.76,249.97.

Table. 13. Year wise Project Sanctioned for VCA under SFAC

| Year | No.Projects Recommended for VCA | Total Project Cost Rs. in lakhs | No. Projects Sanctioned for VCA | Total Project Cost Sanctioned for VCA Rs. in lakhs | VCA Sanctioned Rs. in lakhs |
|--------------|---------------------------------------|---------------------------------------|---------------------------------------|---|-----------------------------------|
| 2007-08 | 5 | 2460.77 | 9 | 5386.67 | 616.98 |
| 2008-09 | 7 | 2872.08 | 4 | 2184.93 | 126.77 |
| 2009-10 | 13 | 2906.29 | 5 | 1444.58 | 92.30 |
| 2010-11 | 16 | 5395.32 | 10 | 3899.61 | 292.59 |
| Total | 71 | 19668.82 | 43 | 16261.74 | 1530.43 |

10. Overall Important Schemes Handled

The overall picture of the agricultural marketing performance in Tamil Nadu during the eleventh five year plan is abstracted and overall important schemes handled and the activity includes market complexes, market complexes with cost storage, cold storages, farmers' market, mega market, flower auction centre, ripening chamber for banana, terminal market, food processing industries, rural business hub, agri business centres, infrastructure facilities proposed for the year 2011-12, budget and staff details is presented in the Annexure XV.

11. The Potential Of Agriculture Marketing System In Tamil Nadu

Tamil Nadu, the second most industrialized state, also has great potential to develop a vibrant agrarian economy through agro-industrialization by deriving competitive advantages from state's unique position in the world for many commodities viz; tea, sugarcane, cotton, tobacco, groundnut, bananas etc. Moreover, these agri products are produce in certain geographical clusters which makes these clusters prima facie suitable for setting up of common user infrastructure facilities. It also has a great potential in agriculture because of its diverse agro climatic zones, trained manpower availability, investment thrust, government support and entrepreneurial acumen. It is endowed with abundant natural resources in terms of fertile land, good irrigation system, varied soil and climatic conditions, good support in terms of industries and most important enterprising people and technical talent.

This provides an immense opportunity to develop a vibrant agrarian economy. Tamil Nadu witnessed a moderate agriculture growth during 2010-2011 with an average growth rate of 12 per cent. Despite many strength and well-developed infrastructure facilities, there is enough scope for developing and upgrading agriculture infrastructure in the area of specialized storage facilities, primary and secondary transportation, mechanization, grading standards, export promotion, processing industry support and market intelligence etc.

12. Feedback Through Interactions And Focus Group Discussions

A study on the regulated markets involving the farmers and traders were done during 2012. As discussed above under the APMC Act 1954, there are 21 APMCs are successfully managed. Each APMC has its own monopoly for particular commodity viz. Erode for Turmeric, Tindivanam for oil-seeds etc. In spite of many initiatives from the Government side still there are many lacunas existing regulated markets and some of the overall lacunas identified were as follows,

Focus on Lacunas of Existing Regulated Markets

- ❖ There is a great concern about the scale of operation because farms are small and getting smaller with passing of time. Hence it is difficult and costly to provide knowledge of modern agriculture practices.
- ❖ Agri marketing and agro processing industries facing a problem of the availability of material of right quality, in right quantity, at right time and at right price.
- ❖ The wide dispersal of produces with small quantity, results in costly transportation and handling efforts to ensure the final markets.
- ❖ Long marketing chains and clumsy transfers, resulting in substantial leakage of value and actual physical loss.
- ❖ Numerous intermediaries widely spread between farm gate and consumer increase the cost of consumer but not the value received by the producer.
- ❖ Limited value addition because of poor linkages to agro processing industries. Even, inefficiencies at post-harvest operations like, cleaning, grading, storage, handling and packaging. The losses occur due to excessive moisture, infestation by insects, pests and rodents etc.
- ❖ Lack of modern warehousing and storage facilities.
- ❖ Local brokers are often in collusion with traders and therefore the price which is settled is generally to the advantage of the traders and not to the farmer.

- ❖ Farmer does not ordinarily get the information about the ruling prices in the big markets. As a result the farmer have to accept whatever price quoted to them and have to believe whatever the traders tell them.
- ❖ Awareness and exploiting the benefits of trading with future market is restricted to big farmers, traders, and other intermediaries; except producers.
- ❖ The amount procured under future trading is considerably large for individual farmer; mostly above 3T.
- ❖ Poor Backward and Forward linkages of APMCs with producers as well as agro processing industries.
- ❖ Lack of linkage and orientation with R & D institutions, as well as poor market intelligence.
- ❖ Lack of knowledge of quality parameters and standards.
- ❖ Lack of vision, leadership, professional competence etc., restricts the development of APMCs and increases the corruption and mal practices.
- ❖ Role of APMCs for building integrated channel to connect farm gate to food plate is negligible.
- ❖ Existing markets do not play a pro-active role in attracting produce.
- ❖ There is hardly any facility / infrastructure for handling, assembling, sorting, grading, packing,
- ❖ Transportation, quality certification, palatisation, labeling, pre - cooling, cold storage, ripening chambers etc.

In order to answer what will make the farmers to participate in the regulated market? so that the income of the farmers can be improved, factors influencing farmers participation in regulated markets is studied. The results of the study on the factors Influencing the Arrival of Crops to the Market Committee is presented in the Table. The results reveals that the factors such as Number of Schooling years, Experience in marketing in years, Farm Size in ha, Distance to the RM in km, Ratio of RM prices and Farm gate prices and the number of Contacts made by the RM Functionaries influences the farmers Participation in Regulated Markets significantly.

Table.14. Factors influencing farmers Participation in Regulated Markets

| Variable | Normalized Co- efficient | T statistics |
|--|--------------------------|--------------|
| Age of the farmers in years | 0.18 ^{NS} | 1.43 |
| Number of Schooling years | 0.54*** | 2.84 |
| Experience in marketing in years | 3.29*** | 7.50 |
| Farm Size in ha. | 0.64*** | 3.04 |
| Distance to the RM in km | -1.52*** | 5.03 |
| Ratio of RM prices and Farm gate prices | 0.224*** | 2.77 |
| No. of Contacts made by the RM Functionaries | 5.19*** | 4.14 |
| Membership in Associations | -1.16 | 1.47 |
| Log – likelihood function | | 0.96 |

The problems faced by farmers in utilizing the facilities in the Regulated farmers has to be assessed in order to help the farmers. problems faced by farmers are analyzed and garrotte ranking was done and presented in the Table. The farmers expressed the factors such as transport expenditure , quantity of produce, crop loan facility, less number of traders, price not to the expected level, pre harvest contract, infrastructure facilities and price variations were the major problems faced by the farmers.

Table.15. Problems faced by Farmers

| Reasons | Score | Rank |
|---------------------------------|-------|------|
| Transport Expenditure | 83.24 | 2 |
| Quantity of Produce | 87.45 | 1 |
| Crop loan facility | 73.22 | 4 |
| Less number of traders | 66.59 | 5 |
| Price not to the expected level | 33.26 | 7 |
| Pre harvest contract | 78.96 | 3 |
| Infrastructure Facilities | 24.32 | 8 |
| Price variations | 58.34 | 6 |

Farmers Perception on Advantages in Using Regulated Markets and Traders' Perception on Advantages of Regulated Markets is presented in the following tables. The Farmers and the traders who utilize the facilities of the regulated markets follow it year after year and they felt that there is many advantages in selling their produce in the regulated markets.

Table. 16. Farmers Perception on Advantages in Using Regulated Markets

| Reasons | Score | Rank |
|------------------------|--------------|-------------|
| Storage facilities | 73.20 | 2 |
| Need not bargain | 64.54 | 3 |
| More price | 88.24 | 1 |
| Welfare schemes | 31.33 | 6 |
| Correct weight | 61.51 | 4 |
| Pledge Loan facilities | 33.21 | 5 |

Table. 17. Traders' Perception on Advantages of Regulated Markets

| Reasons | Score | Rank |
|------------------------------------|--------------|-------------|
| Low transport cost | 82.24 | 2 |
| Concentrated assembling of produce | 92.40 | 1 |
| Cooperation of officials | 38.11 | 5 |
| Adequate infrastructure | 66.32 | 3 |
| Secret tender | 32.45 | 6 |
| Banking and financial Facilities | 48.76 | 4 |
| Access to IT enabled services | 28.62 | 7 |
| Specialization of Produce | 22.31 | 8 |

13. New Thinking On Regulated Markets

Agricultural Markets in Tamil Nadu are established and regulated under the State APMC Acts. The monopoly of Government regulated wholesale markets has prevented development of a competitive marketing system, providing no help to farmers in direct marketing, organizing

retailing, a smooth raw material supply to agro-processing industries and adoption of innovative marketing system and technologies. There is, in the process, an enormous increase in the cost of marketing and farmers end up getting a low price for their produce. Monopolistic practices and modalities of the state-controlled markets have prevented private investment in the sector.

In recent years however there has been a new thinking is required on the part of central as well as state government to remove the bottlenecks of the regulated markets and facilitates the farming community to benefit from new market opportunities, through integrating and strengthening the internal agriculture marketing system. The central government formulated and circulated a Model Act in the place of existing State APMC Act which permit the farmers, local authorities and others to establish new markets, setting up of purchase center, farmer / consumer markets for direct sale in any area and promote public – private partnership in management and development of agricultural markets as well as contract farming too. The proposed Act encourage : (a) development of competitive agriculture marketing; (b) deregulate the marketing system; and (c) promote private investment in management and development of agricultural markets in India.

a. Challenges to Existing Markets

The main problem, which the farmers face, is related to the marketing of their produce. Most of the States have ‘Agricultural Produce Marketing Committee Act’ which forces the individual farmers to sell their produce only to designated agencies and do not allow them to sell in the open market. In Tamil Nadu Government, Agricultural Produce Marketing Committee (APMC) Act/Rules for direct marketing and/or for permitting private and cooperative investments for setting up of agricultural Markets is in existence. The marketing in Indian Agriculture is something, which has been, neglected all this while.

The Indian agriculture market is growing with the aspiration of achieving greater International exposure. Even with the increasing level of population the critical areas like food availability, food accessibility and food security are demanding the great interest of concern. The food products capture almost 53 percent of private consumption expenditure and demand rises consistence at almost 8 per cent. Even the concept like perishability and health and hygiene are covering the considerable place in consumer basket.

Another eye-catching issue is the infrastructure inadequacies of marketing support for farmers as well as poor guidance on forward linkages that are necessary for the farmers to get the remunerative price of their produce.

Initiative of government to permit the corporate bodies to enter into the agriculture sector and develop the value chain as backward integration to continue the supply of food grains, fruit and vegetables to their organized retail chain at a lower cost will raise the questions of long term survival of APMCs.

Identifying and seizing opportunities, however, requires an up-to-date awareness about industry developments as well as a sound understanding of the society and policy impacts of every action taken. With the agribusiness industry expanding beyond food to energy, the need for innovations has emphasized at initial level. In response, organizations are making bold moves as they strive to operate differently and to do what is right, there is a felt need to inculcate and develop proactive thinking and proper planning for charting the road map of the future.

Public Private Partnership Approach

To develop the integrated agri-value chain, linking various stack holders of agriculture market the Public Private Partnership approach can provide a better platform. The “Integrated Agro-Bridge Center”, which would not only fulfill the agriculture input requirement but also provide better and efficient agriculture produce market. In India the agriculture produce is distributed according to geographical proficiency. Such distribution can be termed as the production hubs for the particular crop. Successful replication of PPP models across various production hubs for key commodities can lead to the evolution of Indian agriculture from inefficient, supply driven, low value business scenario to an organized, high-tech, demand-led and high-value orientation.

b. Features of the PPP Model

◆ The model would help the farmers to shorten the cost of cultivation by reducing the post-harvest losses, transportation costs, energy losses by maximizing the optimum use of available resource, enhancing environment quality and earning better profit from better quality product.

- ◆ The higher returns can be ensured through high quality product, off-season availability, and through enhancing the productivity, which would help the government to meet the issue of food security to certain extent.
- ◆ The level of sophistication is likely to rise in the PPP model, which may lead to increase the level of dissatisfaction among existing players of APMCs. The suggested model will try to create a market place, which works, in its natural form where large number of buyers and large number of sellers participate in transactions and decide price without monopoly of any dominant market player.
- ◆ The present system does not cope up with cultural change, technological advancements and professional expertise of different stakeholders. IT applications have opened various dimensions of backward and forward linkages, which will ensure transparency and efficiency. Even various opportunities of collaborative arrangements with exchequers in PPP model, the farmers may not prefer to take risk in dealing with APMCs.
- ◆ Due to involvement of Research institutions like universities and the private players, the migration of the advanced and the best practices in production and processing would be faster and smoother. Farmers would enjoy the price realization and quality up gradation through TOT approach (Transfer of Technology). Thus, the PPP model would provide the multi-user facilities and establish an integrated agro-value chain, which would amplify the agriculture operational efficiency. Even the private players would also get the benefit due to well-organized structure of the market.

c. Principles of Proposed PPP Model

- ◆ Represent unique and advanced aspect of agriculture in Tamil Nadu.
- ◆ Provide an effective, technical and commercial high-end platform to Agriculture Sector OF Tamil Nadu.
- ◆ Educate various stakeholders of agriculture process.
- ◆ Create a direct interface between various stakeholders. Appreciating the imperative of intermediaries in the Indian context, the PPP model virtually clusters all the agri-value chain

participants, delivering the benefits on equal ground. The PPP model makes use of the physical transmission capabilities of intermediaries – aggregation, grading, logistics, counter-party risk and bridge financing – by providing them the chain of information flow and market signals. With a judicious blend of click & mortar capabilities, “Integrated Agro-Bridge Center” managed by representative of Farmers Self Help Group,

farmers’ cooperatives, Government and APMCs officials as well as the professionals from investors. The model would enable the agricultural community access ready information in their local language on the weather, market prices, disseminate knowledge on scientific farm practices & risk management. It would also facilitate the sale of farm inputs, purchase farm produce from the farmers’ doorsteps and provide them more efficient market through APMCs.

d. Working Force of PPP Model

Even though, the APMCs in Tamil Nadu are working very effectively, the professional efficiency can be added through PPP model. The farmers sell their produce directly through open auction at APMCs where the commission agents play the vital role. The price spread is also wide because the majority of the farmers are unaware of actual ruling prices in other markets. “Integrated Agro-Bridge Center” would be the joint venture of APMCs and Private investors to strengthen the agri-value chain. The APMC would facilitate the land as part of its equity and the private investor would develop other infrastructure. Both the partners would likely to follow the policies by the government in their functioning. The center would get the membership charges from the group of farmers in respective areas. The research institutes, KVKs, Universities, and NGOs would be the knowledge partners of the model. This segment would provide the extension services consistently. The representative of the Farmers groups, the officials from government, APMCs, and knowledge partners as well as the executives of private investors would organize the governing body of the model.

e. The Agri-Value Chain

The produce would aggregate by the center from group of farmers. The individual farmer can also supply his produce on membership basis. The center would work as the heart of the model. At the center, the value added operations of agriculture produce like, weighing, grading, cleaning, standardization, packaging, labeling etc. would be carried out. The trained

professionals would handle the same. The center would also provide the agriculture inputs at rational price. The extension services would be provided with the help of knowledge partners either through visits or through practical trainings at center as well on the farm with the help of demonstration plots. The center would help the members for getting financial assistance from banks. The center would be linked with commodity markets, to make aware of forward market prices of various commodities in domestic as well as international markets at the hub itself. The group of farmers would be permitted to deal directly with the commodity market after paying the charges of value addition. The produce would be directly placed for the open auction in APMCs by the center to discover better price. The private investor would get the benefit of no-license fees for purchasing of the produce from the APMCs. They can also participate in open auctions. Even they would be allowed to procure the produce from the hub at prevailing forward market price. The farmers would get the return on the basis of the quantity and quality of their produce they deposited at the hub.

14. Some of the activities which should receive increasing attention of APMCs and departments of agricultural marketing:

- (a) creating grading facilities and building up goodwill for the produce of their area in distant markets;
- (b) encouraging the local farmers, traders and processors to market the produce under their brands and promoting such local brands based on graded produce;
- (c) regular surveillance on the price environment for the most important products of their area, analyzing the movement in profitability and promoting an aggressive marketing strategy to keep the price-cost ratio for such products favourable to the farmers;
- (d) regular assessment of the profitability of farm enterprises and terms of trade for the farmers of their area;
- (e) carrying out marketing costs and margins studies by mapping out the channels for the produce of their respective areas, estimating the farmers share in consumer's rupee and identifying the scope for reducing costs and margins and increasing the farmers realization for motivating them to increase the production;

- (f) identifying the varieties of crops of their area, which fetch better prices and arranging and popularizing the seeds of such varieties; and
- (g) In the event of prices of any commodity, which is covered under the price support programme, tending to dip below the support level, either ensuring that an agency is in place to make purchase at the support price, or entering into the market on behalf of the nodal agency to prevent the prices from falling below the support level.

Some of these functions may call for change in the State Agricultural Produce Market Acts. While amending the relevant provisions of the Act, even the word ‘regulation’ may need to be dropped as it connotes what is really not true.

These apart, the regulated markets in the changed marketing scenario should assist the producers in increasing their production alongside the performance of various functions related to the marketing of agricultural produce. Some of the ways in which the regulated markets can help by taking new initiatives are:

- (1) Provision of credit facilities by the regulated markets to the producer farmers.
- (2) Supply of agricultural inputs to the producer-farmers
- (3) Provision of transport facilities for carrying their produce to the markets from places of production
- (4) Providing market extension services
- (5) Strengthening of market intelligence activities.

i. Grading of Agricultural Commodities

In the absence of proper grading, both the producers and the consumers suffer. Grading ensures that producers receive a price which is commensurate with the quality of the produce. At the same time, grading protects the consumers against adulteration. Facilities for grading must be developed at the farm level and at the market level.

ii. Storage Facilities

The problem of the storage of farm produce has been accentuated by the increase in the volume of production. Storage is necessary, at the village site to check the tendency of

immediate post-harvest sale by the farmers, and at the market level so that the various marketing functions may be performed and advantage may be taken of any price rise. In the recent past, warehouses have been constructed by the Food Corporation of India, the Central Warehousing Corporation, the State Warehousing Corporations, Co-operative Marketing Societies and the government. Individuals also have built-up storage space. The available storage space in these warehouses is less than the requirement. There is, therefore, a need for the construction of more godowns, specially in rural and hilly/desert areas.

To make farming more attractive and the hard labour of the farming community more remunerative, it is necessary that storage facilities should be extended right up to the producers' level. This is possible only by having a network of warehouses all over the country, which can serve not only as places of storage but as places of orderly transactions of selling and buying, and thus ensure that farmers do not travel long distances to market their produce. Once this system is evolved, a farmer will be in a better position to market his produce and get benefits of hard work.

iii. Marketing of Agricultural Inputs

The marketing procedures of agricultural inputs have to be improved. This is most essential in the present context of the use of new technology. The newly-evolved HYV seeds are more responsive to other inputs, and arrangements for their timely availability are a prerequisite for the success of the programmes of agricultural development.

iv. Ancillary Facilities in the Markets

The existing markets lack the ancillary facilities, which include banks, a post office, telegraph office, and shopping centres. Also, the facilities of sorting, grading and packaging in the villages or primary markets are not available. These should be increased to provide full benefits to the farmers.

v. Finance for Market Development

Market development with all the ancillary facilities is highly capital-intensive, and returns on investments in it accrue slowly over a period of years. For market development, a special arrangement for financing is necessary.

vi. Education of Farmers

It is equally necessary to educate farmers in marketing of agricultural products so that they may derive necessary benefits of their activities. Without proper education, benefits cannot reach the farmers fully. This is more so in the present context with the availability of increased marketed surplus with producer-farmers.

vii. General Dissatisfaction of Farmers

The problems listed above generally reflect the inadequacy of the market infrastructure for handling of the increased volume of production. This inadequacy is reflected in the general discontentment amongst farmers which, if not checked, will thwart the tempo of increasing production. The grievances which have to be dealt with at the local level are: congestion in the markets; delays in cleaning, weighing and auction of their produce; loss arising out of pilferage and excess weightage; delays in payment by traders; absence of procurement agents when market price falls below the support level; and non-availability of inputs at the right places and time. There is, therefore, a need to sensitize the policy-makers also for reducing the dissatisfaction among farmers.

15. Summary and Conclusion for performance of Marketing Institutions

- The overall performance was appreciable
- In relation to total production or volume of transaction the role of marketing institutions was very limited.
- There is need of infrastructure development, the existing infrastructure was not sufficient and was not appropriate in some of the places where it is not performing well.
- Some of the storage and other facilities is inaccessible to the stakeholders due to various reasons such as distance from production or marketing point.
- The available capacities can be utilized through transporting from the surplus areas.
- The new markets such as export destinations can increase the marketing efficiency through value addition by various forms of utilities.
- Single window implementation of the schemes will pay the way for the effective implementation of the developmental activities in agricultural marketing

- Area specific schemes will be one of the major path to cull out the under utilization of the resources and effective implementation.
- There is need of more human resource with specialization in agricultural marketing.

16. Conclusion on Performance of RM and factors determining the performance

- Among the farmers major factors contributing to the marketable surplus is total production of the crop, size of holding, education status of the farmers
- Total arrivals to the regulated market are influenced by the total production in the District and number of farmers using the regulated market rather than the trader's participation, price or the rainfall in the District.
- The factors such as the age, experience in marketing, size of holding, distance from the regulated market, difference between farm gate price and regulated market price and contact with the officials influences the farmers in using the regulated markets to sell the agricultural products
- The major problem faced by the farmers in using the regulated markets were low quantity of produce, transport expenditure, lack of crop loan in needy times which make them to go for pre harvest contract etc.
- The major advantages felt by the regulated market using farmers were the higher price, storage facilities, competitive trader's price, pledge loan facilities and correct weight.
- The traders also have the advantage in using the regulated markets; the advantages are concentrated assembling of produce, low transport cost / assembling cost, adequate infrastructure, banking and financial facilities.

17. Policy Suggestions

- The strict enforcement in marketing of agricultural produce under the roof of regulated markets like other states such as Karnataka, Andhra Pradesh and Maharastra will benefit the Tamil Nadu farmers in getting the price advantage and efficient marketing of their agricultural produce.

- Integrating various existing marketing systems with RM (Eg. Cooperative Agricultural Marketing Societies)
- Adopting hub and fork system for increasing the performance of the RM's by establishing peripheral markets or assembling centers.
- Modernizing existing RM's and conduction auctions on electronic platform.
- There is need of more investment in the storage and other infrastructure facilities and the farmers will utilize if the facilities are created to their convenience.

ANNEXURE

I. List of notified Commodities

| S. No | Commodity |
|-------|--|
| | A)Cereals : |
| 1 | Paddy |
| 2 | Cholam (Jowar) in all forms |
| 3 | Cumbu (Bajra) in all forms |
| 4 | Ragi in all forms |
| 5 | Maize in all forms |
| 6 | Thinai |
| 7 | Varagu |
| 8 | Samai |
| | B)PULSES: |
| 9 | Redgram (Thuvarai) in all forms |
| 10 | Black gram (Ulundu) in all forms |
| 11 | Greengram (Pachaippairu) in all forms |
| 12 | Lab (Mochai) in all forms |
| 13 | Cowpea (Karamani) in all forms |
| 14 | Horsegram (Kollu) in all forms |
| | C)OIL SEEDS : |
| 15 | Groundnut (Pods and kernels,) (whole or split) |
| 16 | Gingelly or sesamum seeds or Ellu |
| 17 | Castor (Pods or seeds) |
| 18 | Sunflower seeds or kernels |
| 19 | Coconut (in all forms except tender coconut) |
| 20 | Cotton seed |
| 21 | Neem seeds. |
| | D) Fibres: |
| 22 | Cotton (Kapas, lint, waste). |

| | |
|-----------|---|
| | E) Vegetables : |
| 23 | Potato |
| 24 | Onion |
| 25 | Tomato |
| | F) Fruits : |
| 26 | Banana). |
| 27 | Mango |
| 28 | Grapes (Kodimundhari) |
| | G)Drugs and Narcotics : |
| 29 | Tobacco in all forms. |
| | H)Tubers : |
| 30 | Tapioca chips, Tapioca flour, Tapioca starch, Tapioca tubers |
| | I)Condiments & Spices : |
| 31 | Chillies or red chilles |
| 32 | Turmeric in all forms (bulb or finger) |
| 33 | Coriander (Dhania seeds) |
| 34 | Arecanut (whole or splits) |
| 35 | Tamarind in all forms |
| 36 | Cashewnuts in all forms |
| | J)Miscellaneous : |
| 37 | Sugarcane jaggery in all forms (jaggery powder, brown sugar etc) |
| 38 | Palmgur, jaggery in all forms |
| 39 | Raw Rubber in all forms, Pale Latex crepe, sole crepe and centrifuged latex rubber manufacturer's association grades on rubber sheets and estates brown crepe grades. |
| 40 | Silk-cotton in all forms |

II. No. of Regulated markets in Market committee

| Sl. No. | Market Committees | Regulated markets (in No.s) |
|--------------|-------------------|--------------------------------|
| 1 | Kancheepuram | 15 |
| 2 | Vellore | 12 |
| 3 | Tiruvannamalai | 16 |
| 4 | Cuddalore | 10 |
| 5 | Villupuram | 17 |
| 6 | Salem | 19 |
| 7 | Dharmapuri | 16 |
| 8 | Coimbatore | 18 |
| 9 | Erode | 25 |
| 10 | Tiruchirappalli | 19 |
| 11 | Thanjavur | 13 |
| 12 | Pudukkottai | 10 |
| 13 | Madurai | 6 |
| 14 | Ramanathapuram | 20 |
| 15 | Tirunelveli | 20 |
| 16 | Kanyakumari | 6 |
| 17 | Theni | 7 |
| 18 | Dindigul | 8 |
| 19 | Nagapattinam | 8 |
| 20 | Tiruvarur | 8 |
| 21 | Nilgiris | 4 |
| Total | | 277 |

III. Infrastructure facilities available in Regulated markets (No.s)

| Sl. No. | Market Committees | Own Land | God own | Rural God own | Trans-action Shed | Rural Business Hub | Drying Yard | weighing and bagging Farmers Rest Shed | Sanitary Facilities | Drinking water Facilities | |
|--------------|-------------------|------------|------------|---------------|-------------------|--------------------|-------------|--|---------------------|---------------------------|------------|
| 1 | Kancheepuram | 8 | 5 | 8 | 7 | -- | 14 | - | 4 | 7 | 6 |
| 2 | Vellore | 11 | 16 | 10 | 10 | 1 | 13 | - | 4 | 8 | 7 |
| 3 | Thiruvannamalai | 14 | 19 | 11 | 26 | -- | 27 | 1 | 10 | 10 | 13 |
| 4 | Cuddalore | 5 | -- | 6 | 13 | 1 | 13 | - | 5 | 9 | 5 |
| 5 | Villupuram | 13 | 6 | 14 | 47 | 1 | 25 | 1 | 1 | 21 | 18 |
| 6 | Salem | 7 | 3 | 10 | 10 | 1 | 18 | - | 2 | 11 | 12 |
| 7 | Dharmapuri | 7 | -- | 5 | 7 | 1 | 21 | - | 3 | 3 | 7 |
| 8 | Coimbatore | 18 | 71 | 14 | 31 | 1 | 51 | - | 13 | 18 | 14 |
| 9 | Erode | 18 | 18 | 11 | 53 | 1 | 46 | - | 8 | 20 | 14 |
| 10 | Thiruchirapalli | 14 | 12 | 11 | 20 | -- | 18 | - | 5 | 14 | 14 |
| 11 | Thanjavur | 7 | 7 | 6 | 13 | -- | 20 | - | 4 | 5 | 3 |
| 12 | Pudukkottai | 2 | 1 | 2 | 2 | -- | 5 | - | -- | -- | 1 |
| 13 | Madurai | 4 | -- | 5 | 3 | -- | 7 | - | 3 | 6 | 6 |
| 14 | Ramanathapuram | 13 | 10 | 12 | 12 | 1 | 18 | - | 11 | 13 | 11 |
| 15 | Thirunelveli | 16 | 7 | 13 | 14 | 1 | 19 | - | 8 | 15 | 15 |
| 16 | Kanyakumari | 5 | 2 | 5 | 5 | -- | 8 | - | 4 | 5 | 5 |
| 17 | Theni | 5 | -- | 6 | 4 | -- | 7 | - | 1 | 3 | -- |
| 18 | Dindigul | 6 | 4 | 5 | 5 | 1 | 8 | - | 1 | 6 | 6 |
| 19 | Nagapattinam | 3 | 5 | 5 | 2 | -- | 6 | - | -- | 5 | 7 |
| 20 | Thiruvarur | 4 | 2 | 5 | 4 | -- | 9 | - | 2 | 4 | 2 |
| 21 | Nilgiris | -- | -- | -- | -- | -- | -- | - | -- | -- | -- |
| Total | | 180 | 178 | 164 | 288 | 10 | 353 | 2 | 89 | 183 | 166 |

IV Cold storages in Uzhavar Sandhai

| District | Cold storages in Uzhavar Sandhai |
|-----------------|----------------------------------|
| 1. Salem | 1. Sooramangalam |
| | 2. Attur |
| | 3. Ammapettai |
| | 4. Dadagapatti |
| 2. Namakkal | 5. Namakkal |
| | 6. Rasipuram |
| 3. Ciombatore | 7. Singanallur |
| 4. Tiruppur | 8. Tiruppur North |
| 5. Krishnagiri | 9. Hosur |
| 6. Madurai | 10. Chokkikulam |
| | 11. Annanagar |
| 7. Vellore | 12. Gudiyatham |
| | 13. Vaniyambadi |
| 8. Cuddalore | 14. Cuddalore |
| 9. Theni | 15. Theni |
| | 16. Cumbum |
| 10. Thiruvarur | 17. Mannargudi |
| 11. Trichi | 18. Annanagar |
| | 19. K K Nagar |
| 12. Tuticorin | 20. Tuticorin |
| 13. Kanyakumari | 21. Vadaseri |
| 14. Ciombatore | 22. R S Puram |

V. Vegetable arrivals / day in MTs

| Vegetable arrivals / day in MTs) | No . Of US | District | Name of Uzhavar Sandhai |
|----------------------------------|------------|-------------|---|
| >70 | 4 | Tiruppur | Tiruppur South |
| | | Krishnagiri | Hosur |
| | | Coimbatore | Kovai R S Puram, Singanallur |
| 50 - 70 | 3 | Tiruppur | Tiruppur North |
| | | Cuddalore | Cuddalore |
| | | Thiruvarur | Mannargudi |
| 30 - 50 | 10 | Tiruppur | Palladam * |
| | | Coimbatore | Vadavalli |
| | | Tiruchy | Anna Nagar Trichy |
| | | Salem | Sooramangalam |
| | | Theni | Theni, Kambam |
| | | Madurai | Madurai, Chokkikulam |
| | | Villupuram | Villupuram |
| | | Nilgiris | Udagai |
| 10 - 30 | 57 | Villupuram | Kallakurichi, Dindivanam |
| | | Pudukottai | Pudukottai |
| | | Vellore | Vellore, Gudiyatham, Katpadi, Ranipet, Vaniyambadi, Arcot, Kakitha pattarai |
| | | Salem | Ammamet, Dadagapatti, Mettur, Attur, Hasthampatti |
| | | Thiruvarur | Tiruthuraiipoondi |
| | | Namakkal | Namakkal, Rasipuram, Thiruchengodu |
| | | Karur | Karur |
| | | Krishnagiri | Krishnagiri, Denkanikottai |
| | | Tanjavur | Tanjavur, Kumbakonam |

| | | | |
|--------|----|-----------------|--|
| | | Dharmapuri | Dharmapuri, Pennagaram, A.Jattihalli *, Palacode, Harur |
| | | Dindigul | Dindigul, Palani |
| | | Madurai | Palanganatham |
| | | Kancheepuram | Pallavaram |
| | | Erode | Dharapuram, Sampath Nagar |
| | | Kanyakumari | Vadaseri |
| | | Tiruchy | Dhuraiyur, K K Nagar, Manaparai |
| | | Cuddalore | Virudhachalam |
| | | Virudhunagar | Srivilliputhur, Aruppukottai, Rajapalayam |
| | | Coimbatore | Sulur, Kurichi, Sundarapuram, Mettupalayam, Pollachi |
| | | Perambalur | Perambalur |
| | | Nilgiris | Coonoor |
| | | Ramnad | Paramakudi |
| | | Tirunelveli | Palayamkottai |
| | | Thiruvannamalai | Thiruvannamalai, Arani |
| | | Thiruppur | Udumalpet |
| | | Tuticorin | Tuticorin |
| | | Sivagangai | Thirupathur |
| 5 - 10 | 57 | Salem | Thammampatty |
| | | Virudhunagar | Virudhunagar, Dhalavaipuram, Sivakasi, Kariyapatti |
| | | Thiruvallur | Tiruttani |
| | | Theni | Devaram, Chinnamanur, Andipatti, Periyakulam |
| | | Erode | Sathyamangalam, Periyar Nagar, Gobi |
| | | Madurai | Anaiyur, Usilampatti |
| | | Salem | Attayampatti, Edapadi *, Elampillai, Jalagandapuram * |

| | | | |
|-------|----|-----------------|--|
| | | Thiruvannamalai | Cheyyar, Thamarai Nagar *, Polur |
| | | Pudukottai | Alangudi, Karambakudi, Aranthangi, Gandharva kottai |
| | | Pattukottai | Pattukottai |
| | | Thiruvarur | Thiruvarur, Mannargudi II *, Valangaiman * , Nedemangalam |
| | | Sivagangai | Sivagangai, Devakottai, Karaikudi, Tirupathur |
| | | Namakkal | Paramathivelur, Komarapalayam, Moganur |
| | | Dindigul | Kodaikanal, Batlagundu, Chinnalapatti |
| | | Trichy | Lalgudi *, Thuvakud, Kulithalai, Musiri |
| | | Villupuram | Ulundurpet, Gingee |
| | | Nagapattinam | Nagapattinam, Sirkali |
| | | Ramnad | Ramnad |
| | | Krishnagiri | Avalapalli * |
| | | Cuddalore | Chidambaram |
| | | Tuticorin | Kovilpatti |
| | | Karur | Pallapatti |
| | | Thiruvallur | Tiruvallur, Naravadikuppam |
| 3 - 5 | 22 | Erode | Kangeyam * |
| | | Tanjavur | Papanasam |
| | | Vellore | Natrampalli |
| | | Karur | Vengamedu *, Velayuthampalayam |
| | | Ariyalur | Ariyalur |
| | | Kancheepuram | Kancheepuram, Guduvancheri *, Alandhur |
| | | Villupuram | Sankarapuram * |
| | | Thiruvannamalai | Chengam, Vandavasi |

| | | | |
|--|-----|-----------------|--|
| | | Cuddalore | Panruti, Vadalur |
| | | Madurai | Thirumangalam |
| | | Erode | Perundurai |
| | | Thiruvallur | Perambakkam * |
| | | Theni | Bodi |
| | | Thiruvarur | Muthupet |
| | | Nagapattinam | Mayiladuthurai |
| | | Nilgiris | Kothagiri |
| | | Tirunelveli | Melapalayam |
| <3 | 26 | Kanyakumari | Mayiladi |
| | | Krishnagiri | Kaveripattinam |
| | | Maduuri | Melur |
| | | Kancheepuram | Jameen Rayapettai* , Sunguvar Chatram *, Chengalpet, Maduran thagam, Medavakkam, Kannagi Nagar, Kundrathur* , Keel Kattalai * , Padappai * , Thirukalu kundram * |
| | | Thiruvallur | Paruthipattu, Ambattur |
| | | Tanjavur | Tirukkattupalli |
| | | Pudukottai | Viralimalai |
| | | Tirunelveli | Ambasamudram, Kandiyaperi, Thenkasi, Sankarankoil |
| | | Perambalur | Veppanthattai * |
| | | Thiruvannamaali | Keel Pennathur * |
| | | Ariyalur | Jeyankondam |
| | | Ramnad | Kamuthi |
| | | Nilgiris | Goodalur * |
| Total | 179 | | |
| * - Uzhavar Sandhais opened during Feb' 2011 under NADP scheme | | | |

VI. Targets and Achievements in the NADP Programme

| Name of the scheme | Financial (in Lakh Rs.) | |
|--|----------------------------|-------------|
| | Allotment | Achievement |
| <u>2008-09</u> | | |
| Exposure visit of precision farming farmers to markets | 81.80 | 66.47 |
| Development of Kavunji Village as Corporate Village for Precision Farming Farmers (smoke house and grading yard) | 21.00 | 21.00 |
| <u>2009-10</u> | | |
| Rural Business Hubs at 10 Places viz., Erode, Vellore, Villupuram, Krishnagiri, Salem, Coimbatore, Cuddalore, Tirunelveli, Dindigul and Virudhunagar | 150.00 | 150.00 |
| Tomato Cold storage at Maicheri in Salem District. | 100.00 | 100.00 |
| Coconut market complex at Pethappampatti in Tiruppur District | 100.00 | 100.00 |
| <u>2010-2011</u> | | |
| Establishment of Ripening Chambers for Banana at Trichy, Mohanur, Srivaikundam and Chinnamanur. | 200.00 | 200.00 |
| (i) Establishment of 25 New Uzhavar sandhais (ii) Provision of additional shops in existing Uzhavar sandhais | 659.35 | 659.35 |
| Strengthening of Regulated Markets i) Drying yards-150 Nos. ii) Rural godowns -20 Nos. iii) Automatic weighing and bagging machins-2 Nos. | 781.25 | 781.25 |
| Strengthening of Paddy Market Complex at Mattuthavani, Madurai. | 36.00 | 36.00 |
| Establishment of Market Complex with Cold Storage for Hilly Vegetables, at Karamadai Regulated Market, Coimbatore District. | 100.00 | 100.00 |
| Establishment of vegetable market at Madurai-Total cost: Rs.8500/ Lakhs 2010-2011: Rs.3000/ Lakhs) | 3000 | -- |
| Establishment Of Cold Storage For Chillies At Paramakudi Regulated Market, Ramanathapuram District | 99.50 | 99.50 |
| Establishment Of Market Complex And Storage Facilities For Onion and other vegetables At Perambalur District | 114.90 | 114.90 |

| | | |
|--|--------|--------|
| Provision Of Computers With Accessories For Farmers Market . | 16.25 | 16.25 |
| Automation of Regulated Market | 163.10 | 163.10 |
| Provision of Automatic Weighing and Bagging Machine in Regulated Markets | 22.50 | 22.50 |

VII. Status of Food Processing Industries in Tamil Nadu

(No. of proposals applied through Department of Agricultural Marketing and Agri Business, Chennai upto 2007-08)

| S. No. | Food processing Industries | No. of units | No. of projects sanctioned | Grant sanctioned (Rs. in Lakhs) |
|--------|---|--------------|----------------------------|---------------------------------|
| 1 | Fruit Processing Mango pulp processing | 9 16 | 19 | 680.251 |
| 2 | Rice milling and processing | 78 | 27 | 371.41 |
| 3 | Dairy product processing | 14 | 9 | 315.29 |
| 4 | Cashew processing | 31 | 9 | 188.395 |
| 5 | Wheat processing | 5 | 3 | 159.21 |
| 7 | Poultry Unit | 2 | 2 | 143.9 |
| 8 | Desiccated Coconut powder unit | 4 | 1 | 17.6 |
| 9 | Onion processing | 1 | 1 | 50.00 |
| 10 | Bread and Bakery manufacturing unit | 5 | 5 | 213.69 |
| 11 | Pulse milling | 6 | 6 | 116.56 |
| 12 | Meat processing | 3 | 3 | 141.51 |
| 13 | Gherkins processing | 3 | 2 | 89.17 |
| 14 | Dhall milling and processing | 3 | | |
| 15 | Potato processing | 3 | 2 | 100.00 |
| 16 | Spirulina processing | 1 | 0 | 0 |
| 17 | Oil extraction unit | 10 | 8 | 289.39 |
| 18 | Spices processing | 7 | 4 | 54.38 |

| | | | | |
|----|------------------------------|------------|------------|----------------|
| | (chilli and turmeric) | | | |
| 19 | Tamarind paste unit | 1 | 0 | 0 |
| 20 | Ragi processing | 1 | 0 | 0 |
| 21 | Flour mill | 6 | 4 | 170.64 |
| 22 | Pickle and masala processing | 9 | 0 | 0 |
| 23 | Sago processing | 13 | 4 | 92.85 |
| 24 | Fish canning industry | 2 | 0 | 0 |
| 25 | Ready to eat industry | 7 | 2 | 19.39 |
| | Total | 247 | 112 | 3289.59 |

VIII. Entrepreneurship Development Programme

| Name of the Company / Organisation & Location | Type of the Project | Project cost Rs. in lakhs | Grant recommended to the GOI. Rs. in lakhs | Grant Sanctioned by the GOI. Rs. in lakhs |
|--|---------------------|---------------------------|--|---|
| 2007-08 | | | | |
| Dhanalakshmi Srinivasan College of Arts & Science for Women, Perambalur | 1 EDP | 1.20 | 1.00 | 1.00 |
| Community Action for Rural Development (CARD), Pudukottai | 4 EDP | 4.00 | 3.84 | 0.96 |
| Entrepreneur Promotional Institute of Chennai (EPIC), Chennai. | 12 EDP | 16.80 | 12.00 | 1.00 |
| Periyasamy Rural Improvement Organisation, Sivagangai. | 5 EDP | 5.50 | 5.00 | 1.00 |
| Natinal Institute for Micro, Small and Medium Enterprises (nimsme), (Formerly nisiet), | 10 EDP | 10.00 | 10.00 | 2.00 |

| | | | | |
|---|--------|---------------|--------------|-------------|
| Hyderabad. | | | | |
| The Institute of Entrepreneurship Development (IED), Dharmapuri | 15 EDP | 16.50 | 15.00 | 2.00 |
| Women and Child Development Society, Nanguneri, Tirunelvely Dt. | 10 EDP | 10.00 | 9.00 | 2.00 |
| TOTAL | | 102.95 | 90.84 | 2.96 |
| 2008-09 | | | | |
| Annai Indira Rural Development Charitable Trust, Pallipat, Thiruvallur District | 10 EDP | 10.00 | 9.00 | 2.00 |
| Leading Light International, Chennai. | 5 EDPs | 10.50 | 5.00 | 2.00 |
| Fathima Educational and Rural Development Trust, Thuraiyur, Trichy Dt. | 4EDPs | 5.00 | 4.00 | 1.00 |
| Redeem Trust, Karungulam Post, Trichy Dt. | 2EDP | 2.59 | 2.00 | 1.00 |
| ACT Foundation, Madurai | 1 EDP | 2.16 | 2.00 | 1.00 |
| Association for Rural Development, P.Meenakshipatti, Madurai | 1 EDP | 2.00 | 1.88 | 1.00 |
| Jayamatha Women Empowerment and Child Health Organization Trust, Mounspuram, Dindigul | 1 EDP | 2.25 | 1.88 | 1.00 |

| | | | | |
|---|--------|------|------|------|
| Nehru Educational and Environmental Development Society, Cumbum, Theni District | 1 EDP | 2.13 | 2.00 | 1.00 |
| 2009-2010 | | | | |
| Vikas India Trust (Village Integrated Knowledge Action Service) Crawford, Trichy. | 1 EDP | 2.13 | 2.00 | 1.00 |
| Society for Community Organisation and Rural Development (SCORD), Alangotta, Thiruvarur Dt. | 4 EDPs | 8.00 | 2.00 | 1.00 |
| We Care, Kumbakonam, Thanjavur Dt. | 1 EDP | 2.27 | 2.00 | 1.00 |
| Mari Amman Service Society, Saravanapuram, Trichy Dt | 3 EDPs | 6.00 | 2.00 | 1.00 |

IX. Activities under the NHM Scheme.

| Details | Year | Physical (Nos) | | Financial (Rs. In lakhs) | |
|--|---------|----------------|-------------|--------------------------|-------------|
| | | Target | Achievement | Target | Achievement |
| Training on Post harvest Management | 2007-08 | -- | -- | -- | 21.79 |
| Setting up of Electronic Flower Auction Centre | 2007-08 | -- | -- | -- | 2.00 |
| Advertisement charges | 2007-08 | -- | -- | -- | 1.41 |
| Terminal Markets (Consultancy Fee) | 2008-09 | -- | -- | -- | 19.64 |
| Creation of new uzhar sandhais and walk in coolers | 2009-10 | 50+22 | 50+22 | 220.78 | 220.78 |

X. Training on Post Harvest Management under the NHM Scheme (2007-08)

| Sl.No. | Details | Physical | Financial | Remarks |
|--------|--|----------|-----------|---|
| 1 | Amount released to Tamil Nadu State Agricultural Marketing Board, Chennai for conducting training to farmers on Post Harvest Management from the balance under training component. | | 21.79 | 4760 farmers have been given training on Post Harvest Management utilizing funds from National Horticulture Mission |

XI. Setting up of Electronic Flower Auction Centre under the NHM Scheme (2007-08)

| Sl.No. | Details | Physical | Financial (in lakh Rs) | Remarks |
|--------|--|----------|---------------------------|--|
| 1 | 25% subsidy has been paid to Nilgiris Flower Growers Association towards setting up of Electronic Flower Auction Centre at R.S.Puram Uzhavar Sandhai | | 2.00 | Established on 6.2.2007 and being utilised by farmers. |

XII. Performance of TN-IAMWARM project from 2007-08 to 2010-11

| S No. | Component | 2007-08 to 2010-11 Phase I, II&III | | | | | | Details of Components Achieved |
|-------|--------------------------------------|---------------------------------------|-------|-----|-----------------------|-------|-----|---|
| | | Physical (Nos) | | | Financial (Rs. Lakhs) | | | |
| | | Target | Achiv | % | Target | Achiv | % | |
| 1 | Infrastructure | 351 | 265 | 75 | 1825 | 1825 | 100 | 19 ABC, 87 Storage godowns, 141 Drying yard, 13 Collection centre , one Pack house & 4-additional input shops |
| 2 | IEC&CB activities | 733 | 670 | 91 | 285.6 | 256 | 90 | 97 Exposure visit outside the state, 169 Exposure visit inside the state, 218 Technical training and 186 interface workshops. |
| 3 | Procuremnt of goods | 3538 | 3279 | 93 | 128.4 | 120 | 93 | 52 moisture meter, 118 electronic weighing scale, 522 tarpaulin, 1985 Dunnage, 19 Computers, 8 Goods auto,1 Mini lorry & 575 plastic crates |
| 4 | IAMWARM CELL HQ | 1 | 1 | 100 | 42.47 | 16.7 | 39 | Telephone charges, 7 computers and operating cost of IAMWARM CELL |
| 5 | Advertisement | | | | 67 | 44.9 | 67 | Advertisement given through dailies inviting sealed tenders for Civil works under this scheme |
| 6 | Price Contingency + Special services | | | | 187.1 | 177 | 94 | Phase I sub basins Civil works - Price Contingency Rs.168.05 + Dunnage cost esclation Rs.3.00 and Marketing Facilitators appointed in the sub basins to look after this scheme. |
| | Total | 4623 | 4215 | 91 | 2536 | 2439 | 96 | |

XIII. Agri Business Centers in Various Sub-Basins (TN-IAMWARM) (2007-2013)

| Sl. No | Year | Sub basin | Name of the ABC | District/Nodal officer | Cost in Rs. Lakhs |
|--------------|---------|---------------------|-----------------------|------------------------|-------------------|
| 1 | 2007-08 | Aliyar | Thimankuthu | Coimbatore | 22.50 |
| 2 | 2007-08 | Palar | Nilali | Erode | 22.50 |
| 3 | 2007-08 | South vellar | Thiruvarankulam | Pudukottai | 22.50 |
| 4 | 2007-08 | Pambar | Embal | Pudukottai | 22.50 |
| 5 | 2007-08 | Upper vellar | Yethapur | Salem | 22.50 |
| 6 | 2007-08 | Manimuthar | S.R.Pattinam | Sivagangai | 22.50 |
| 7 | 2007-08 | Kottakaraiyar | Purasadaiudippu | Sivagangai | 22.50 |
| 8 | 2007-08 | Varahanadhi | Kooteripattu | Villupuram | 22.50 |
| 9 | 2007-08 | Arjunanadhi | Kothaneri | Virudhunagar | 22.50 |
| 10 | 2009-10 | Pennaiyar | Thattiganapalli | Krishnagiri | 25.00 |
| 11 | 2009-10 | Therkar | Chekkannurani | Madurai | 25.00 |
| 12 | 2009-10 | Ambuliyar | Tirunalur North | Pudukottai | 25.00 |
| 13 | 2009-10 | Swethanadhi | Kodamalai | Salem | 25.00 |
| 14 | 2009-10 | Upper vaigai | Theni | Theni | 25.00 |
| 15 | 2009-10 | Senkottaiyar | Mavilpatti | Thoothukudi | 25.00 |
| 16 | 2009-10 | Kalingalar | Vasudevanallur | Tirunelveli | 25.00 |
| 17 | 2009-10 | Nichabanathi | Kuvalaikanni | Tirunelveli | 25.00 |
| 18 | 2009-10 | Poiney | Neelakandrayan pettai | Vellore | 25.00 |
| 19 | 2009-10 | Koundinyanadhi | Eriankadu | Vellore | 25.00 |
| 20 | 2009-10 | Agniyar | Pallathur | Thanjavur | 25.00 |
| 21 | 2009-10 | Chinnar | Esanai | Perambalur | 25.00 |
| 22 | 2009-10 | Upper gundar | S Kottaipatti | Madurai | 25.00 |
| 23 | 2009-10 | Kosasthalaiyar | Ammanambakkam | Tiruvallur | 25.00 |
| 24 | 2010-11 | Gridhamal | Avaniyapuram | Madurai | 25.00 |
| 25 | 2010-11 | Kambainallur | Palacode | Dharmapuri | 25.00 |
| 26 | 2010-11 | Nallavur | Kolathur | Villupuram | 25.00 |
| 27 | 2010-11 | Ongur | Kodiyalam | Tiruvannamalai | 25.00 |
| 28 | 2010-11 | Uthirakosamangaiyar | Mela ayakudi | Ramanathapuram | 25.00 |
| Total | | | | | 677.50 |

XIV. District wise Cold Storage Details

| Sl. No. | District | No. of Cold Storage Unit |
|----------------|-----------------------|---------------------------------|
| 1 | Thiruvallur | 23 |
| 2 | Chennai | 24 |
| 3 | Kancheepuram | 24 |
| 4 | Vellore | 4 |
| 5 | Thiruvannamalai | 6 |
| 6 | Salem | 12 |
| 7 | Dharmapuri | 4 |
| 8 | Krishnagiri | 5 |
| 9 | Erode | 4 |
| 10 | Namakkal | 1 |
| 11 | Coimbatore | 17 |
| 12 | Ooty | 2 |
| 13 | Villupuram | 1 |
| 14 | Cuddalore | 3 |
| 15 | Thanjavur | 1 |
| 16 | Thiruvarur | 1 |
| 17 | Ariyalur | 1 |
| 18 | Thiruchirapalli | 10 |
| 19 | Pudukottai | 11 |
| 20 | Dindigul | 4 |
| 21 | Madurai | 10 |
| 22 | Theni | 7 |
| 23 | Ramanathapuram | 5 |
| 24 | Virudhunagar | 2 |
| 25 | Tirunelveli | 1 |
| 26 | Thoothukudi | 15 |
| 27 | Kanyakumari | 3 |
| | Total | 201 |
| | Total capacity | 2.18 akh MT |

XV. OVERALL IMPORTANT SCHEMES HANDLED

a. Market Complexes

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|--------|-------------------------------|------|-----------------|--|----------|--------------|
| 2 | Coconut Market Complex | 2009 | TNSAM B | Ponnavarayankottai - Ukkaqadai village, Pattukottai Taluk, Thanjavur Dist. | Coconut | 4.00 |
| 3 | Coconut Market Complex | 2009 | NADP | Pethappampatti, Tiruppur | Coconut | 1.00 |
| 4 | Erode Turmeric Market Complex | 2010 | M.C | Karumandichellipalayam | Turmeric | 9.83 |

b. Market complexes with cost storage

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|--|-------------|------------------------|-----------------------------|----------------------------|---------------------|
| 1 | Complex with cold storage for Mango | 2009 | TNSAMB | Krishnagiri, Krishnagiri | Mango | 1.00 |
| 2 | Complex with cold storage for Onion | 2009 | TNSAMB | Pongalur, Coimbatore | Onion | 1.00 |
| 3 | Complex with cold storage for Grapes | 2009 | TNSAMB | Odaipatti, Theni | Grapes | 1.00 |
| 4 | Complex with cold storage for Tomato | 2009 | TNSAMB | Palacode, Dharmapuri | Tomato | 1.00 |
| 5 | Complex with cold storage for Hilly Vegetables | 2010 | NADP | Karamadai, Coimbatore | Hilly vegetable | 1.00 |
| 6 | Complex with cold storage for Hilly Onion and other Vegetables | 2010 | NADP | Perambalur, Perambalur | Onion and Other Vegetables | 1.149 |

c. Cold Storages

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|---------------------------|-------------|------------------------|-----------------------------|-------------|---------------------|
| 1 | Tomato Cold Storage | 2009 | NADP | Meicheri, Salem | Tomato | 1.00 |
| 2 | Cold Storage for Chillies | 2010 | NADP | Paramakudi, Ramanathapuram | Chillies | 0.995 |

d. Farmers' market

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crore s |
|---------------|---|--------------|--------------------------|---|-------------------------------|----------------------|
| 1 | 179 Farmers' markets | 1999 to 2011 | MC , TNSAMB NHM , & NADP | All over the State | To sell fruits and vegetables | 30.10 |
| 2 | Cold storage room in 22 Farmers' markets with 2 MT capacity | 2009 | TNSAMB , NHM | Sooramangalam, Aathur, Ammapattai, Thathagapatti, Namakkal, Rasipuram, Singanallur, Tiruppur (North), Hosur, Chokkikulam, Madhurai Anna Nagar, Gudiyatham, Vaniyambadi, Cuddalore, Theni, Cumbam, Mannargudi, Trichy Anna Nagar Trichy K.K.Nagar, Thoothukudi, Vadaseri, Kovai R.S.Puram uzhavar sandhais | Storing Fruits and Vegetables | 1.33 |
| 3 | 2 MT Cold Storage in 5 Farmers' markets through Trichy Regional Engineering Collect | 2010 | World Bank | Karur, Kumbakonam, Nanganallur, Asthampatti, Paliyankottai | Vegetables | |

e. Mega Market

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|---------------------------|-------------|------------------------|-----------------------------|-------------|---------------------|
| 1 | Oddanchatram Mega Market | 2005 | M.C | Oddanchatram | Vegetables | 3.08 |

f. Flower Auction Centre

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|----------------------------------|-------------|------------------------|-----------------------------|-------------|---------------------|
| 1 | Electronic Flower Auction Centre | 2007 | M.C | S.Puram, Kovai | Cut flowers | 0.11 |
| 2 | Flower Auction Centre | 2008 | TNSAM B | Kaval Kinaru, Tirunelveli | Flowers | 1.634 |

g. Ripening Chamber for Banana

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|---|-------------|------------------------|--|-------------|---------------------|
| 1 | Ripening chamber for banana in 4 places | 2010 | NADP | Trichy, Mohanur, Srivaikundam, Chinnamanur | Banana | 2.00 |

h. Terminal Market

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|----------------------------|-------------|------------------------|-----------------------------|---------------------------|---------------------|
| 1 | Perundurai Terminal Market | | PPP Mode | Perundurai SIPCOT | For Fruits and Vegetables | 120.63 |
| 2 | Madurai Terminal Market | | PPP Mode | Mukkampatti, Thiruvathavur | Vegetables and Fruits | 105.05 |
| 3 | Chennai Terminal Market | | PPP Mode | Navalur | Vegetables and Fruits | 113.85 |

i. Food Processing Industries

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|---------------|-------------------------------------|-------------|------------------------|-----------------------------|---|---------------------|
| 1 | Food Processing Industries | 2002-07 | MoFPI | All over the state | To start Food Processing Units by private entrepreneurs | 32.90 |
| 2 | Entrepreneurs Development Programme | 2002-11 | MoFPI | All over the State | NGO / Private entrepreneurs | 1.08 |

j. Rural Business Hub

| Sl. No | Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores |
|--------|------------------------|------|-----------------|--|--|--------------|
| | 10 Rural Business Hubs | 2009 | NADP | Sathyamangalam, Kalavai, Krishnagiri, Gangavalli, R.Ponnapuram, Ulundurpet, Panruti, Pavoorchatram, Bathalagundu and Rajapalayam | For the utilization of Commodity Group farmers | 1.50 |

k. Agri Business Centres

| Name of the Scheme | Year | Funding Pattern | Place & District | Crop | Rs.in crores | Sl.No |
|--|---------|-----------------|------------------|--|--------------|---|
| Agri Business Centres at 19 places under IAMWAR M Scheme | 2007-13 | World Bank | 19 places | For the utilisation of Commodity Group Farmers | 4.53 | Thimankuthu, Nilali, Thiruvarankulam, Embal, Yethapur, S.R.Pattinam, Purasadaidippu, Kooteripattu, Kothaneri, Thattiganapalli, Chekkanurani, Tirunalur North, Kodamalai, Theni, Mavilpatti, Vasudevanallur, Kuvalaikanni, Neelakandrayanpettai, Eriankadu |

I. Infrastructure Facilities Proposed For the Year 2011-12

| S. No. | Schemes | Project estimate (Rs. Lakhs) |
|--------|---|------------------------------|
| 1 | Establishment of 5 Agro Processing Industries for Tomato at Dharmapuri District, for Banana at Theni District, for Groundnut at Villupuram District, for Pulses at Pudukkottai District and for Coconut copra at Coimbatore District each at cost of Rs.400.00 lakh with the participation of commodity group farmers | 500.00 |
| 2 | Establishment of Market complex for Banana and a cold storage at Srirangam in Trichy district. | 400.00 |
| 3 | Creation of Market complex with cold storage for vegetables and fruits at Gobichettipalayam in Erode district. | 400.00 |
| 4 | Creation of Cold storage units for fruits and vegetables in Erode, Trichy, Pudukkottai, Virudhunagar and Thoothukudi Districts. | 500.00 |
| 5 | Establishment of Cold storage unit for Tamarind at Dharmapuri district. | 200.00 |
| 6 | Establishment of Cold storage unit for Chillies at Tirunelveli District. | 200.00 |
| 7 | Creation of market complex with cold storage for lemon at Kadaiyanallur regulated market in Tirunelveli district. | 220.00 |
| 8 | Computerization of 20 Regulated Markets including Purchase of software license. | 250.00 |
| 9 | Creation of Traders shops in regulated markets | 480.00 |
| 10 | Increasing the amount of pledge loan to farmers from 1.00 lakh to 2.00 lakhs in regulated markets | 0.00 |
| 11 | Organizing a Massive Training Programme to 30,000 farmers covering all districts of Tamil Nadu. | 66.00 |
| 12 | Purchase of vehicles for Chennai publicity and propaganda wing and Salem Training Center of Tamil Nadu State Agricultural Marketing Board | 18.00 |
| 13 | Establishment of 50 Modern Godowns in Regulated Markets with financial assistance from NABARD under Rural Infrastructure Development Fund. | 8200.00 |
| 14 | Infrastructures, goods and ICE&CB activities under TN-IAMWARM project | 459.28 |
| 15 | Purchase of Equipments for Agmark laboratories under Part II scheme | 41.00 |
| 16 | Purchase of vehicles to the Commissionerate under Part II scheme | 12.00 |
| | Total | 11946.28 |

m. Budget And Staff Details

a. Budget provision and Expenditure details(Rs.in thousands)

| S. No. | Year | Budget Provision | | | | Expenditure | | | |
|--------|------------------------|------------------|--|-----------------------------------|---------|----------------|--|-----------------------------------|---------|
| | | Plan (IAMWARM) | Non plan (including Part II Scheme, Salary and Allowances) | Centrally sponsored Scheme (NADP) | Total | Plan (IAMWARM) | Non plan (including Part II Scheme, Salary and Allowances) | Centrally sponsored Scheme (NADP) | Total |
| 1 | 2006-07 | 0 | 319440 | 0 | 319440 | 0 | 283557 | 0 | 283557 |
| 2 | 2007-08 | 40908 | 348208 | 0 | 389116 | 38855 | 239010 | 0 | 277865 |
| 3 | 2008-09 | 60243 | 473346 | 28902 | 562491 | 58359 | 418575 | 8746 | 485680 |
| 4 | 2009-10 | 50915 | 536377 | 35004 | 622296 | 93323 | 659990 | 35000 | 788313 |
| 5 | 2010-11 | 53397 | 706153 | 503243 | 1262793 | 53383 | 573114 | 219285 | 845782 |
| 6 | 2011-12 (upto June) | 13570 | 604907 | 551927 | 1170404 | 5273 | 10831 | 0 | 16104 |
| Total | | 219033 | 2988431 | 1119076 | 4326540 | 249193 | 2185077 | 263031 | 2697301 |

b. Plan Schemes

Budget Provision made and Expenditure Incurred (Rs. Crores)

| S. No | Name of the Scheme | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11 | |
|----------------------------|--------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | | Allocation | Expenditure | Allocation | Expenditure | Allocation | Expenditure | Allocation | Expenditure | Allocation | Expenditure |
| EXTERNALLY AIDED SCHEME | | | | | | | | | | | |
| 1 | TN-IAMWARM | -- | -- | 4.09 | 3.89 | 6.00 | 5.84 | 9.86 | 9.33 | 5.40 | 5.34 |
| CENTRALLY SPONSORED SCHEME | | | | | | | | | | | |
| 2 | NADP/RKVY | -- | -- | -- | -- | 1.03 | 0.88 | 3.50 | 3.50 | 51.93 | 21.93 |
| | Total | -- | -- | 4.09 | 3.89 | 7.05 | 6.72 | 13.36 | 12.28 | 57.27 | 27.27 |

c. Non-Plan Scheme

Budget Provision made and Expenditure Incurred (Rs. lakhs)

| Name of the Scheme | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11 | |
|--------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Allocation | Expenditure | Allocation | Expenditure | Allocation | Expenditure | Allocation | Expenditure | Allocation | Expenditure |
| Part II scheme | 452.60 | 445.46 | -- | -- | -- | -- | 25.00 | 25.00 | 30.00 | 26.63 |

n. Staff Details (in No.s)

| S. No. | Particulars | Sanctioned | In position | Vacant |
|--------|---|------------|-------------|--------|
| 1 | Department of Agricultural Marketing And Agribusiness | 1310 | 1074 | 236 |
| 2 | Market Committee | 1631 | 890 | 741 |
| 3 | Tamil Nadu State Agricultural Marketing Board | 96 | 69 | 27 |
| 4 | Tamil Nadu Small Farmers' Agri Business Consortium | 7 | 3 | 4 |
| | Total | 3044 | 2036 | 1008 |