Tiruvannamalai - District Agricultural Plan

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NATIONAL AGRICULTURAL DEVELOPMENT PROGRAMME (NADP)

DISTRICT AGRICULTURE PLAN

TIRUVANNAMALAI DISTRICT

Centre for Agricultural and Rural Development Studies (CARDS)
Tamil Nadu Agricultural University
Coimbatore – 641 003

2008

NATIONAL AGRICULTURE DEVELOPMENT PROJECT – DISTRICT AGRICULTURE PLAN

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FOREWORD

Date .....

The National Development Council resolved that Agricultural Development strategies must be reoriented to meet the needs of farmers and called upon the Central and State governments to evolve a strategy to rejuvenate agriculture with a commitment to achieve four per cent annual growth in the agricultural sector during the 11th plan. The council also recommended special Additional Central Assistance Scheme named National Agriculture Development Programme (NADP) be launched. To implement this, formulation of District level action plans is the pre-requisite and thus District Agriculture Plan of various districts in Tamil Nadu has been prepared with the financial assistance of Government of India.

The task of preparing the District Agriculture Plan has been given to Tamil Nadu Agricultural University by Government of Tamil Nadu. Thus 29 Districts level Plans, excluding Chennai and Nilgris, were prepared by the Centre for Agricultural and Rural Development Studies, Tamil Nadu Agricultural University. Several meetings were held at TNAU during the last few months. Steering committee, district planning unit and plan finalizing team were putting their efforts in shaping up the District Agriculture Plans. All the District Collectors representing the 29 districts have actively participated in the sensitizing meeting organized by TNAU and officials of line departments in the respective districts. The plan documents have identified the major thrust areas in agriculture and allied sectors for achieving the envisioned growth in the district and also in Tamil Nadu state. I appreciate the team work of TNAU scientists and the officials from line departments for bringing out the valuable action plans for each district. I am sure that these plans would also lead to more fruitful exercises like formulation of State level plans and project proposals for funding through NADP.

I solicit the cooperation of the line department officials in implementing these action plans and commit to achieve a better growth in agriculture and allied sectors in each and every district of Tamil Nadu during the 11th plan.

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PREFACE

The District Agriculture Plan is brought out based on the details provided by the line department officials of the respective districts. The District Agriculture Plan thus identifies the problems, needed interventions and the financial requirement for the developments in Agriculture and allied sectors of Agriculture viz. Horticulture, Agricultural Engineering, Animal husbandry, Fisheries, Sericulture, Agricultural marketing and Agricultural business and Public Works Department.. The Government sponsored various on-going schemes and programmes in the development of agriculture have also been dovetailed in the preparation of plan. Besides, the plan would also help in formulating the State Agriculture Plan and the project proposals under Stream I and Stream II to be funded by Government of India for the remaining four year plan periods viz. 2008-2012.

My sincere thanks to District Collectors of the respective districts in Tamil Nadu who have been instrumental in providing the felt needs of the farmers and other stakeholders. The help and full cooperation rendered by the line department officials in each district is highly appreciable. Without their assistances, the formulation of the plan will be a mere academic exercise.

My sincere thanks to Shri. Surjit K. Chaudhary I.A.S., Agricultural Production Commissioner and Principal Secretary to Government of Tamil Nadu who is instrumental in integrating the multi-level functionaries and providing valuable guidance in bringing out this plan document.

My sincere thanks to Dr. C. Ramasamy, Vice-Chancellor, Dr. P. Santhana Krishnan, Registrar of Tamil Nadu Agricultural University, for their full administrative and technical support without which the time schedule in preparing the document could not have been adhered to. Special thanks to Dr.S. Natarajan, Director, Soil and Crop Management Studies and Dr. E. Vadivel, Director of Extension Education, for their sustained support in the preparation of the district plans. All the Principal Investigators of the NADP first Phase also provided the needed inputs.

I take this opportunity to express my deep sense of gratitude to Commissioner of Agriculture, Commissoner of Horticulture and Plantation crops, Chief Engineer (Agricultural Engineering), Executive Director, Tamil Nadu Watershed Development Agency, Commissioner of Animal Husbandry and Veterinary Services, Commissioner of Fisheries, Commissioner for Milk Production and Dairy Development, Commissioner of Agricultural Marketing and Agri Business, Director of Seed Certification, and Director of Sericulture for providing constructive support and guidance in preparing the document.

I also place on record my sincere thanks to Vice-Chancellor of TANUVAS and his colleagues for providing the action plans for Animal Husbandry and Fisheries in Tamil Nadu.

Sincere thanks to Deans, Heads of Research Stations/KVK's and scientists of TNAU representing different districts and scientists of Directorate of CARDS for helping in collection of data, organising district level workshops and group meetings with stakeholders and preparation of this document.

Date: 30.06.2008

K. Palanisami
Director, CARDS & Nodal Officer (NADP)

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EXECUTIVE SUMMARY

Spiritual seekers from all over world come to Tiruvannamalai, a Pilgrimage city**,** filled with living enlightenment gurus. This sacred city is located 200 kilometers from Chennai. This ancient town has been built around Arunachala hill (Annamalai hill), a mountain raising 4000 Meters heavenly from the ground. Tiruvannamalai is famous for sprawling temple Arunachala temple, dedicated to Lord Shiva. Every full moon day people walk around Annamalai hill and offer special prayers to Arunachala temple called Girivalam. Spiritual gurus Yogi Ramsuratkumar, Ramana Maharshi, Arabindo, Shesathiri Swamigal , Muniyandi Swamigal and many more saints and sadhus were lived and still living here to bring the divine close to people.

Location and Area

Tiruvannamalai is the capital city of Tiruvannamalai district. In order to improve the administration, this district has been carved from North Arcot district on 1989. North and west of Tiruvannamalai is covered by Vellore district and the southwest is by Krishnagiri district. Both Villupuram and Kanchipuram districts are located in south and east side of Tiruvannamalai district respectively. The total geographical area of the district is 6,191 sq.km. Cheyyar and Tiruvannamalai were the two revenue divisions in the district. The district is divided into seven taluks viz., Arni, Chengam, Cheyyar, Polur, Thandrampet, Tiruvannamalai and Vandavasi. There were 18 Panchayat Unions/ Blocks covering 860 Village Panchayats and ten Town Panchayats comprising of 1,067 revenue villages. The district had four Municipalities, i.e., Arani, Cheyyar, Tiruvannamalai and Vandavasi.

Tiruvannamalai district was formed on 30th September 1989 after bifurcation of North Arcot district. The district lies between 11. 55 ° and 13. 15 ° North Latitudes and 78.20° and 79.50° East Longitudes Physiographically, the district formed on undulating terrain dotted with clusters of hillocks, particularly in the western and northwestern parts. Jawadhu hills are the major hilly regions and other smaller hillocks are scattered in

Tiruvannamalai, Chengam, Polur, Arni and Kalasapakkam blocks. The important hills in the district are Jawadhu hill (2500 ft. above MSL), Kailasagiri hill (2743 ft. above MSL) and Tiruvannamalai (2668 ft. above MSL) hill. The area under forest during 2005 - 06 was 1,53,318 hectares.

Major soil type was red non calcareous and the area accounted for 2,61,040 hectares followed by black calcareous soil with an area of 19,196 hectares. Tanks and dug-wells were the major sources of irrigation in the district. Agriculture is the main occupation in the district. The gross and net cultivated area were 3, 04,929 and 2,30,282 hectares respectively. The cropping intensity was 126 and the ratio of net sown area to cultivable area (indicating extent of use of cultivable area) was 67.6 per cent only. The major crops were paddy, groundnut, pulses, millets, and sugarcane and horticultural crops like tapioca, vegetables and flowers. It is benefited by both south west and northeast monsoon. The general climate is tropical. The credit needs of the farming community are met by the Primary Agricultural Cooperative Banks and 62 commercial banks situated in the district. Marketing of Agricultural products like paddy, groundnut and pulses were carried out by the District Marketing Committee with 16 regulated markets spread over the district. Dairy and sericulture were the other income generating activities in the District (with 739 milk societies and 2.6 lakhs litre of milk/day and nearly 356 hectares were covered under mulberry cultivation). This district has a great potential for agribusiness and export of agricultural products.

SWOT Analysis of the District

Strength

- Predominant soil type is red loamy and black. It is highly suitable for paddy, groundnut and pulses cultivation
- Prevailing climate is highly suitable for paddy, groundnut and pulse cultivation. Groundnut and pulses are being cultivated in rain fed as well as in irrigated conditions.
- The cropping system (paddy- groundnut, paddy –pulses) followed in the district enriches the soil and maintain soil fertility.
- Well organized marketing system through regulated markets

Weakness

- Timely planting, weeding and harvesting are the major problems due to labour scarcity.
- Availability of certified seeds are very low
- Use of low cost inputs like bio-fertilizers and gypsum are very low
- Timely sowing in dry land is very difficult due to non availability of sufficient work animals and labourers.
- Low awareness on IPM concept and INM techniques (use of bio fertilizer DAP Spraying and application of gypsum)

Opportunities

- Mechanization and labour saving implements will help to reduce the labour shortage
- The rehabilitation and development of tanks will help to increase the area under assured irrigation facility
- The precision farming and contract farming will go a long way to improve the returns considerably to the farmers
- Seed production can be achieved through seed village progrmme
- The small, tiny and medium sized industries in this district can be utilised to their full potential to reap the maximum benefits and
- Soil and water conservation work will help to increase the ground water potential.

Threats

- Migration of people towards urban areas hinders the agricultural growth
- Problem soil (alkaline soil) is one of the major problems in Arni, polur and Thiruvannamali blocks.
- Over exploitation of ground water is also noticed in this district and
- Farming is unattractive mainly because of increased input cost, poor credit availability, labour problems and non remunerative returns while disposing the harvested produce.

Position of On-going Schemes in Agriculture Department

The agriculture department implemented the State government funded schemes *viz.*, the procurement and distribution of paddy, millets, and pulses in the year 2005-06 and 13,283 farmers were benefited with the expenditure of Rs. 94.665 lakhs. The Centre and State governments funded projects viz., Integrated Scheme for Oilseeds, Pulses, Intensive Cotton Development Programme, Cereal Development Programme, Farmers' Interest Group and National Pulses Development Programme were in operation in this district.

Major Interventions of Agriculture Development

The Department of Agriculture has proposed the following interventions in the district agriculture programme.

1. **Seed** :
   - Seed production and distribution of Paddy, Groundnut, Gingelly, Millets and Maize
   - Usage of hybrid seeds to increase the Productivity
   - Providing Certified Seeds at subsidised rate to replace the seeds of farmers choice
   - Incentives to be given to TANWABE to take up Hybrid Seed Production and
   - Hybrid Seed Production and Distribution with subsidies to encourage Farmers of TANWABE and FIG

2. **Soil**
   - Green Manure seeds to be distributed to enrich the soil with organic content and nutrient.
   - Soil and water testing may be taken up and soil health card will be distributed to Farmers.
   - Assistance will be provided to vermi compost unit and
   - Subsidies will be granted for the distribution of micro nutrient mixture and gypsum

3. Machineries and Equipments

To overcome the shortage of agricultural labourers, mechanization needs a greater attention,. Power tiller, paddy seedlings transplanter, marker and weeder and harvester are some of the machineries to solve the problems of labour shortage.

4. Technology Transfer

The technology available as on date has to be transferred to the farmers. For effective dissemination of improved and new technologies, conducting village campaigns, laying out field demonstrations in blocks and outsourcing tours to other places within State and outside State etc are proposed.

5. Extension Activities

- Study tour – interstate, within state and outside countries
- Audiovisual van

6. Establishing Seed Testing Laboratory

Position of On-going Schemes in Horticulture Department

In Thiruvannamalai district, during 2007-08, the horticulture development programmes were implemented through number of schemes viz., Integrated Horticulture Development Scheme, Integrated Tribal Development Programme and micro irrigation. The Integrated Horticulture Development Scheme was undertaken in 1,119 ha with financial amount of Rs. 1200 lakhs with 50 percent subsidy. The Micro Irrigation Scheme was undertaken in 570.99 ha with an outlay of Rs. 93.789 lakhs.

Major Interventions of Horticulture Development

1. Nursery and Vegetable Production
2. Pandal for Vegetable Production
3. Package for Plant Protection
4. Plastic Crates for Vegetable handling and transport
5. Cashew high density planting

6. Bore well with Casing Pipe
7. Humic Acid/ Effective E Microbes
8. Banana Bunch Cover
9. Tractor mounted Steam Boiler
10. Support system for Crops (Banana)
11. Banana Corm Injector
12. Mango Harvester
13. Sales Outlet Points in District (Rent and Infrastructure) head quarters
14. District Level Farmers Workshop
15. Intra State Exposure visit (5days)
16. 10 Ha Mega Demo Plot for the District
17. Distillation Unit

Major Interventions of Animal Husbandry Development

- Green fodder development
- Financial Assistance for Animal component
- Incentive to farmers through cards
- Improved livestock health care
- Hygienic utilization of offal and
- Capacity building protocols

Major Interventions of Fisheries Development

- Infrastructure development to attain self sufficiency in seed production through Private and Government.
- Expansion of fish culture in all water bodies
- Infrastructure development to modernize the existing marketing facilities in key areas
- Training pogrammes to the fisher farmers for developing capacity building

Position of On-going Schemes in Agricultural Engineering Department

The Agricultural Engineering Department implemented the rain water harvesting and runoff management programme, Creation of water harvesting structure in the national horticulture mission scheme and Agricultural mechanisation in the year 2007-08

Major Interventions of Agricultural Engineering Development

Popularization of Agricultural Mechanization through

Stream-I

- Introduction of newly developed Agricultural machineries / Implements
- Innovative Water Harvesting Structures and
- Promoting concept of Mechanized Villages

Stream-II

- Popularization of Agricultural Mechanization through conventional machinery/ equipment
- Conventional Water Harvesting Structures
- Soil Conservation Works and
- Water Management Works

Water Harvesting Structures and 90 per cent subsidy have been proposed for individual Water Harvesting Structures, Soil conservation works and Water management works.

Project Components under Stream I

- Introduction of Newly Developed Agricultural Machinery/Implements like Mini Combined Harvestesr, Multi Crop Thrasher, Paddy Transplanter, Maize Husker Sheller, Coconut Dehusker, Groundnut Decordicator, Chisel plough, Tractor Operator combined Harvester, etc.,

- Innovative Water Harvesting Structures like Lined Farm Ponds, Rejuvenation of Percolation Ponds with Recharge shafts and

- Promoting the concept of Mechanized Villages through distribution of crop based package of Agricultural Machinery

Project Components under Stream II

- Popularization of conventional machinery/equipments like Power Tiller, Rotavator, Cultivator, offset Disc Harrow, Disc Plough etc.,
- Water Harvesting Structures like Farm Ponds, Checkdams, Percolation Ponds, Recharge shaft, New Village Tanks etc., and
- Soil Conservation Works like Compartmental bunding, Land shaping and Terrace forming.

Major Interventions of Agricultural Marketing

- Establishment/ organization of commodity groups for marketing in the State
- Facilitation of Contract Farming between farmers and bulk buyers. Dissemination of Market intelligence
- Arrangement of Buyers - Sellers Meet
- Organizing the exposure visits to important markets within the State and outside the State by commodity groups / farmers and extension functionaries.
- Strengthening of market extension centre at each district/ block level for capacity building and dissemination of marketing information.
- Strengthening of selected village shandies
- Capacity building of farmer's skill
- Price surveillance and
- Regulated Market /Uzhavar Shandies publicity.

Major Interventions of Public Works Department

1. Rehabilitation of Anicuts
2. Rehabilitation of Tanks and Supply Channels

Budget Details for Activities Proposed in the District Agriculture Plan

(Rs in lakhs)

Sl. No	Departments	2008-09	2009-10	2010-11	2011-12	Total
1	Agriculture	1493.650	2792.190	2470.400	2525.460	9281.700
2	Horticulture	95.500	98.100	98.100	95.500	387.200
3	Animal husbandry	636.250	224.520	222.630	218.910	1302.310
4	Fisheries	184.163	19.163	13.412	6.500	223.238
5	Agricultural Engineering	576.360	584.860	639.960	639.080	2440.260
6	Agricultural Marketing	19.650	16.445	19.890	20.308	76.293
7	Public Works Department	1084.000	949.500	737.950	539.250	3310.700
	Total	**4089.573**	**4684.778**	**4202.342**	**4045.008**	**17021.701**

CHAPTER - I
INTRODUCTION

Concerned by the slow growth in the Agriculture and allied sectors, the National Development Council (NDC), resolved that a special Additional Central Assistance Scheme, named National Agriculture Development Programme (NADP/RKVY) be launched. The NDC also felt that Agriculture Development strategies must be reoriented to meet the needs of farmers and called upon the Central and State governments to evolve a strategy to rejuvenate agriculture with a commitment to achieve four per cent annual growth in the agricultural sector during the 11th plan. To implement this, formulation of action plans by means of developing District Agriculture Plans (DAP) is recommended. It is of the view that such plans would also reflect the felt needs of the farmers and stakeholders. Such District Agriculture Plans aim at moving towards projecting the requirements for development of Agriculture and allied sectors of the district including animal husbandry and fishery, minor irrigation projects, rural development works, agricultural marketing schemes and schemes for water harvesting and conservation, etc. keeping in view the natural resources and technological possibilities in each district.. These plans thus, present the vision for Agriculture and allied sectors within the overall development perspective of the district apart from the financial requirement and the sources of financing the agriculture development plans in a comprehensive way.

Once the preparation of District level agriculture planning exercise is completed, the operationalization of such plan is essential. This follows the preparation of a comprehensive State Agricultural Plan (SAP) by integrating the above District level agriculture plans. The DAP therefore could integrate multiple programmes that are in operation in the district concerned, include the resources and activities indicated by the state, combine the resources available from the other programmes and finalize the plan. With this in mind, the District Agriculture Plan for each district of Tamil Nadu is prepared.

Methodology Adopted for Preparation of District Agriculture Plan

The preparation of the District Agriculture Plan (DAP) is thus an elaborate, exhaustive and iterative process and therefore every care is taken in ensuring that the DAPs are properly and comprehensively made. The task of preparing such District Agriculture Plan is given to Tamil Nadu Agricultural University, Coimbatore. In Coordination with scientists from TANUVAS and officials from Department of Agriculture, Horticulture, Agricultural Engineering, Marketing, Animal Husbandry and Fisheries, Seed certification PWD etc. the task is fulfilled. In what follows, the procedure adopted to prepare the plan is discussed.

Major Areas of Focus

a. Integrated development of major food crops like paddy, coarse cereals, minor millets, pulses, oilseeds;
b. Agriculture mechanization;
c. Activities related to enhancement of soil health;
d. Development of rainfed farming systems in and outside watershed areas, as also Integrated development of watershed areas, wastelands, river valleys;
e. Integrated Pest Management schemes;
f. Strengthening of Market Infrastructure and marketing development;
g. Strengthening of Infrastructure to promote Extension Services;
h. Activities relating to enhancement of horticultural production and popularization of micro irrigation systems;
i. Animal husbandry and fisheries development activities;
j. Study tours of farmers;
k. Organic and bio-fertilizers;
l. Innovative schemes.

Collection of Data

The preparation of district level plan involved basically collection of base line and bench mark details. So a template is developed to collect these particulars from the different districts (29 districts) of Tamil Nadu. In order to dovetail the ongoing schemes,

with the action plans, the current ongoing agriculture programs were listed with their physical and financial performance and finally converged as the plan under National Agriculture Development Programme.

Formulation of District Planning Unit

To facilitate the involvement of local representatives in the preparation of plans, planning units in each district was formulated. The composition of the district planning units is as follows:

a) Deans of other campuses / Heads of Krishi Vigyan Kendra or Research Station in respective district and one scientist from each campus

b) Co-ordinating staff from Directorate of Centre for Agricultural and Rural Development Studies to represent each district

c) Officials of Line Departments from Agriculture, Horticulture, Agricultural Engineering, Marketing, Animal Husbandry and Fisheries, Seed certification, Public Works Department etc. the task are fulfilled.

Sensitization Workshop

A series of Sensitization Workshop was conducted from 4.3.08 to 18.3.08 at TNAU Campus. The TNAU Staff from Krishi Vigyan Kendras and Research Stations, officials from line Departments *viz.*, Agriculture, Horticulture, Agricultural Engineering and Tamil Nadu Veterinary and Animal Sciences University attended the workshop. Also several meetings were held in Chennai for the National Agriculture Development Programme under the Chairmanship of Agriculture Production Commissioner and Secretary to Government of Tamil Nadu.

The objectives of National Agriculture Development Programme, preparation of District Agriculture Plans, State Agriculture Plan and Formulation of Project proposals under stream - I and stream - II were discussed in the workshop.

Preparation of Draft Action Plan and Presentation in District Collectors Meeting

Based on the baseline information and proposals, draft action plan was prepared and this was presented in the District Collectors Meeting held on 9.5.08 under the chairmanship of District Collector. This meeting was attended by the scientists from TNAU, officials from line departments and the representatives of local bodies wide coverage was given in the media also.

Finalization

The feedback received in the District Collectors Meeting was incorporated before finalization of the District Agriculture Plan. The Strategic Research Extension Plan and Agriculture Technology Management Agency reports were also reviewed and relevant details have been incorporated in the draft report.

CHAPTER - II
GENERAL DESCRIPTION OF THE DISTRICT

2.1. Introduction

Spiritual seekers from all over world come to Tiruvannamalai, a Pilgrimage city filled with living enlightenment gurus. This sacred city is located 200 kilometer from Chennai. This ancient town has been built around Arunachala hill (Annamalai hill), a mountain raising 4000 Meters heavenly from the ground. Tiruvannamalai is famous for sprawling temple Arunachala temple, dedicated to Lord Shiva. Every full moon day people walk around the Annamalai hill and offer special prayers to Arunachala temple called Girivalam. Spiritual gurus Yogi Ramsuratkumar , Ramana Maharshi, Arabindo, Shesathiri Swamigal, Muniyandi Swamigal and many more saints and sadhus were lived and still living here to bring the divine close to people.

i. Location of the District

Tiruvannamalai is the capital city of Tiruvannamalai district. In order to improve the administration, this district has been carved from North Arcot district on 1989. North and west of Tiruvannamalai is covered by Vellore district and the southwest is by Krishnagiri district. Both Villupuram and Kanchipuram districts are located in south and east side of Tiruvannamalai district respectively. The map showing the State and the district is shown in Fig.1.

ii. General Statistics

a) Area

The total geographical area of the district is 6,191 sq. km. Cheyyar and Tiruvannamalai are the two revenue divisions in the district. The district is divided into seven taluks *viz.*, Arni, Chengam, Cheyyar, Polur, Thandrampet, Tiruvannamalai and Vandavasi. There were 18 Panchayat Unions/ Blocks covering 860 Village Panchayats and 10 Town Panchayats comprising of 1,067 revenue villages. The district had four Municipalities, i.e., Arani, Cheyyar, Tiruvannamalai and Vandavasi.

Figure 1. Map showing the State and District

Physiographically, the district formed an undulating terrain dotted with clusters of hillocks, particularly in the western and northwestern parts. Jawadhu hills are the major hilly regions and other smaller hillocks are scattered in Tiruvannamalai, Chengam, Polur, Arni and Kalasapakkam blocks. The area under Forest was 1,53,318 ha. The important hills in the district are Jawadhu hill (2500 ft. above MSL), Kailasagiri hill (2743 ft. above MSL) and Tiruvannamalai (2668 ft. above MSL) hill.

b) Sources of Irrigation

There are no perennial rivers in the district. The district was mostly drained by Cheyyar river, a major tributary of river Palar, originating from the forest area of Jawadhu hills and traveling through Chengam, Polur, Arni and Cheyyar taluks before confluence with river Palar in Kancheepuram district. Other minor streams in the district like, Kamandala Naga Nadhi, Thenpennai, Thurinjalaru and Suganadhi were the important seasonal rivers in the district.

Tanks and dug wells were the major sources of irrigation in the district. The district had 604 major tanks (with ayacut of 40 ha. or more) and 1,361 small tanks (with ayacut of less than 40 ha.) There were 1,050 private borewells, 200 dug-cum-bore wells and 1, 54,415 open wells in the district. Sathanur reservoir is built across the Thenpennai river with an ayacut of 18,882 ha. benefiting both Tiruvannamalai and Villupuram districts.

c) Cropping Pattern

Agriculture is the main occupation in the district. The gross and net cultivated areas were 3, 04,929 and 2, 42,387 ha. respectively. The cropping intensity was 126 per cent and the ratio of net sown area to cultivable area (indicating extent of use of cultivable area) was 67.60 per cent only. Paddy, sugarcane and groundnut were the major crops grown in the district.

d) Allied Activities

The district is the leader in white and brown revolution among the districts in Tamil Nadu. Dairy and goat / sheep rearing were the two important allied activities carried on a large scale in the district.

e) Road and Rail Network

The road network in the district was well developed with 79.90km of National Highways, 2608.26 KM of State Highways, 261.30 KM of Corporation/Municipal roads, 4050.03 KM of panchayat roads, and 126.43 KM of Town panchayat/township roads and 123.36 KM of forest roads. Of the road network, 7,231.32 KM were surfaced roads and 2,724.24 KM were unsurfaced roads. The present meter gauge rail transport in the Vellore and Villupuram segment is under conversion into broad gauge for betterment of both passenger and goods transportation. The district headquarters will be linked with the State capital by rail after completion of gauge conversion. The work is expected to be completed by July 2008.

f) Industrial Activities

The district is rich in mineral deposits such as black granites, multi-coloured granites, soap and magnesite deposits. The district is industrially backward. Polur, Chengam, Cheyyar, and Vandavasi have been declared as industrially most backward taluks. Medium and small scale industries in the district were modern rice mills, weaving factories, cotton, silk and mat weaving, etc. Arni town had the largest concentration of silk twisting units apart from traditional silk weaving units. Handloom weaving is popular in Anakkavur, Cheyyar, Kilpennathur, Pernamallur and Vembakkam blocks.

iii. Animal Husbandry and Fisheries

The following table provides information on livestock and fisheries of Tiruvannamalai district.

Table 1. Details of Livestock and Fisheries Activities in Tiruvannamalai District

Particulars	Numbers
Cattle	497929
Sheep	198318
Goats	150141
Horses and Ponies	142
Pigs	7259
Donkey	153
Domestic dogs	36595
Fowls	246160
Ducks	6154
Inland fish catch	105.49 tons
No. of Veterinary hospital	5
Dispensary	45
Clinical Centre	1
Sub Centres	2

Source: Records of Office of Assistant Director of Statistics, Tiruvannamalai

Table 2. Details of Animal Population-2004

(in Nos.)

Cattle	Sheep	Goat	Pigs	Poultry
4,37,465	1,98,318	1,50,141	7259	2,52,314

Source: Records of Office of Assistant Director of Statistics, Tiruvannamalai

As per the Table 2, there were 4.37, 1.98 and 1.50 lakhs of cattle, sheep and goat respectively in Tiruvannamalai district. The table 3 report the average production of livestock commodities for the last three years.

Table 3. Average Production of Livestock Commodities (2004-05 to 2006-07)

Cow milk in '000 Tonnes	Buffalo milk in 000 Tonnes	Improved egg in Lakh Nos.	Desi egg in Lakh Nos.	Poultry Meat in Tonnes	Mutton in Tonnes	Chevon in Tonnes
238.36	20.66	21.26	85.43	676.67	99.96	338.16

Table 4 indicates that the desi egg productivity increased at 21.52 per cent over a period of eight years as compared to the growth rate of improved egg production which exhibited 21.57 per cent during the same period. Similarly, the growth rate of crossbred cows were higher than that of indigenous cow.

Table 4. Productivity of Livestock (1998–99 to 2006–07)

(Annual Compound Growth Rate in per cent)

Desi Egg	Improved Egg	Indigenous cow	Crossbred cow	Buffalo
21.52	21.57	1.99	2.12	0.23

The production of cow milk had increased at a compound growth rate of 7.59 per cent over a period of eight years. However, the production of buffalo milk exhibited a negative growth rate during the period under consideration. The same phenomenon was observed in the production of different categories of eggs. On the contrary, the production of total meat exhibited a positive growth rate. The details are furnished in Table 5.

Table 5. Production Growth Rates (1998 – 99 to 2006 – 07)

(Annual Compound Growth Rate in per cent)

Cow Milk	Buffalo Milk	Total Milk	Desi Egg	Improved Egg	Total Egg	Total Meat
7.59	-16.00	3.99	-9.33	-13.71	-10.37	2.35

The demand and supply of green fodder during the year 2004 is furnished in Table 6.

Table 6. Demand and Supply of Green Fodder - 2004

(million tons per year)

Demand	Supply	Deficit	Deficit %
3.4813	0.3909	3.0904	88.8

From the table it could be inferred that there was a deficit in 88.8 per cent of green fodder supply during the year 2004.

iv . Other Industries

i) Mining and Forestry based Activities

Mining and Quarrying units – 119.

ii) Rural Industries and other Manufacturing

- Food and Food Production - 1198
- Cotton textile - 131
- Readymade Garments - 1940
- Bricks & mosaic tiles - 104
- Blue metal - 31

iii) Agri / Marketing Centres

Seed / Fertilizers/ Pesticides depots : 1258

Rural markets : 6 Regulated markets and 2 sub regulated markets

Rural godowns : 164 godowns (73,800 tonnes capacity)

Cold storage : Nil

2.2 District at a Glance

2.2.1. Location and Geographical Features

Tiruvannamalai district was formed on 30th September 1989 after bifurcation of North Arcot district. The district lies between 11. 55 ° and 13. 15 ° North Latitudes and

78.20° and 79.50° East Longitudes. It is bounded by Vellore district (erstwhile North Arcot district) in the north and west, by Dharmapuri district in the south west, by Villupuram district in the South and by Kancheepuram district in the East.

2.2.2. Demographic Profile

The details of population in Tiruvannamalai district as per 2001 census are furnished in Table 7.

Table 7. Population and Occupation details of Tiruvannamalai District

S.No	Particulars	Unit in ('000)	Per cent
1	**Total Population**	**21,86,125**	
	Male	10,95,859	50.13
	Female	10,90,266	49.87
2.	**Occupation**		
	Total workers	**10,64,783**	
	Main workers(Agriculture)	8,29,944	77.94
	Marginal workers(Allied sectors)	2,34,839	22.06

Source: Records of Office of National Informatics Centre, Chennai

From the above table, it could be reported that the total population of the district was 21, 86,125 out of which male and female accounted 50.12 and 49.87 per cent respectively. Further it could be seen that most of the workers were dependent on agriculture (77.94 per cent). The marginal workers were found to be in allied sectors only.

2.2.3. Poverty Ratios and Intensity

The block wise details of family below poverty line are furnished in Table 8.

Table 8. Block wise Distribution of Families below Poverty Line

(in numbers)

Sl. No.	Name of the Block	Total No.of Panchayats	SC	ST	Others	Total
1	Tiruvannamalai	69	4097	918	9502	14517
2	Kilpennathur	45	2368	446	5208	8022
3	Thurinjapuram	47	2292	195	4896	7383
4	Polur	40	2523	96	7743	10362
5	Kalasapakkam	45	3309	172	5314	8795
6	Chetpet	49	1420	49	6818	8287
7	Chengam	44	4020	386	5608	10014
8	Pudupalayam	37	2247	202	3542	5991
9	Thandarampet	47	3043	795	5656	9494
10	Jawadhu Hills	11	72	3782	104	3958
11	Cheyyar	53	2671	386	4422	7479
12	Annakkavur	55	1931	201	3536	5668
13	Vembakkam	64	2311	70	5146	7527
14	Vandavasi	61	2588	471	4819	7878
15	Thellar	61	2705	410	5285	8400
16	Pernamallur	57	1919	157	5110	7186
17	Arni	38	2889	0	4429	7318
18	West Arni	37	1594	28	5562	7184
Total		**860**	**43999**	**8764**	**92700**	**145463**

Source: Records of Office of Assistant Director of Statistics, Tiruvannamalai

From the table, it could be seen that families below poverty line were more in Tiruvannamalai, Polur and Chengam blocks as compared to other blocks of Tiruvannamalai district.

2.3. Topography and Agro Climatic Characteristics

i) Climate

The climate of the district is tropical. It is very hot during April to June. The rainfall in the district for the year 2005-2006 was 1388.3 mm as against the normal rainfall of 1046.60 mm. The district receives good rainfall through Southwest monsoon. Generally, Semi-arid climatic condition prevails without any sharp variation in the district. The mean temperature was around 36° C.

ii) Rainfall

Month-wise distribution of rainfall for the last three years in Thiruvannamalai district is furnished in Table 9.

Table 9. Annual Rainfall received- 2005-07

(in mm)

Month	**years**		
	2005	**2006**	**2007**
January	0	4.4	0.0
February	5.4	0.0	23.2
March	20.9	36.2	0.0
April	64.4	17.8	41.6
May	89.5	30.1	26.5
June	32.1	69.6	91.6
July	69.8	28.1	138.1
August	108.2	100.8	208.3
September	225.1	153.1	63.2
October	271.8	225.0	241.4
November	306.1	128.3	91.9
December	195.0	80.6	285.8
Total	**1388.3**	**874.0**	**1211.6**

Source: Records of Office of Department of Revenue, Tiruvannamalai

The above table, indicated that annual rainfall received during the last three years were *viz.*, 1388.3, 874.0 and 1211.6mm respectively.

iii) Soil

The predominant soil type is red. Red loam was found in all the taluks with more concentration in Polur Taluk. Red sand was also found in all the taluks, but predominantly in Chengam, Tiruvannamlai, and Vandavasi taluks. Different types of soil like ferruginous loamy and sandy loamy were seen extensively throughout the district and black loam was found in tank and river bed areas of Cheyyar and Vandavasi taluks. The details of major soil types are furnished in Table 10.

Table 10. Major Soil Type and Area under each Soil Type of the District

Major Soil Type		Area (ha)
Red Calcareous Soil	:	16,099
Red non-calcareous soil	:	2,61,040
Black calcareous Soil	:	19,196
Black non-calcareous Soil	:	8,133

Source: Records of Office of Department of Revenue, Tiruvannamalai

The table clearly indicated that major soil type was red non calcareous and the area accounted for 2,61,040 hectares followed by black calcareous soil with an area of 19,196 hectares. A detailed list of soil types of Thiruvannamalai district is furnished in Table.10 along with the soil map of the district.

Table 11. Details of Soil Types and Area in Hectare of Tiruvannamlai District

Soil Description	Area (ha.)
Moderately deep, fine loamy, mixed, Inceptisols	82198.40
Deep, fine, montmorillonitic, Vertisols	74897.03
Deep, coarse loamy, mixed, Ultisols	61817.42
Moderately deep, clayey skeletal, mixed, Alfisols	31912.53
Deep, fine, mixed, Alfisols	31623.19
Deep, fine, mixed, Inceptisols	26921.20
Moderately shallow, clayey skeletal, mixed, Inceptisols	23626.56
Shallow, clayey, mixed, Inceptisols	17385.53
Deep, fine, montmorillonitic, Inceptisols	14207.28
Moderately shallow, fine, mixed, Inceptisols	13538.90
Moderately deep, fine loamy, mixed, Alfisols	13135.48
Moderately deep, fine, mixed, Inceptisols	12829.86
Shallow, clayey skeletal, mixed, Inceptisols	12681.09
Shallow, loamy skeletal, mixed, Inceptisols	10742.15
Shallow, clayey, mixed, Alfisols	10359.14
Shallow, loamy, mixed, Alfisols	9983.85
Moderately shallow, fine loamy, mixed, Alfisols	9662.14
Shallow, loamy skeletal, mixed, Alfisols	9540.58
Very shallow, loamy, mixed, Entisols	9053.94
Deep, fine loamy, mixed, Alfisols	7739.08
Moderately shallow, coarse loamy, mixed, Entisols	6418.66
Moderately deep, fine, montmorillonitic, Inceptisols	6220.14
Deep, fine loamy, mixed, Ultisols	6082.41
Deep, coarse loamy, mixed, Inceptisols	5439.94
Very deep, fine, mixed, Alfisols	5382.18
Very deep, fine loamy, mixed, Ultisols	5296.87
Moderately deep, coarse loamy, mixed, Inceptisols	4932.85
Moderately deep, fine, mixed, Alfisols	3364.43
Moderately shallow, fine, mixed, Alfisols	2349.45
Very deep, fine loamy, mixed, Alfisols	1890.90
Shallow, loamy skeletal, mixed, Entisols	1846.53
Very shallow, loamy skeletal, mixed, Inceptisols	1650.11
Deep, sandy, mixed, Entisols	1223.96
Shallow, clayey skeletal, mixed, Alfisols	1124.09
Very deep, fine loamy, mixed, Inceptisols	753.64
Deep, contrasting particle size, mixed, Entisols	705.54
Very deep, fine, kaolinitic, Alfisols	661.74
Very deep, fine silty, mixed, Entisols	329.32
Deep, fine loamy, mixed, Inceptisols	236.67
Very deep, clayey skeletal, kaolinitic, Alfisols	162.11
Very deep, fine, montmorillonitic, Vertisols	117.18
Very deep, coarse loamy, mixed, Inceptisols	0.17

From the table, it could be seen that, moderately deep, fine loamy, mixed, and inceptisols are predominant in the district followed by deep, fine, montmorillonitic, vertisols and moderately deep, clayey skeletal, mixed, Alfisols.

iv) Problem Soils

Talukwise area under different problem soils is furnished in Table 12.

Table 12. Taluk wise Area under Different Problem Soils

(Area in hectares)

S.No.	Taluk	Total Area	Alkaline soils	
			Area	Percentage
1	Arani	45493	7602	16.71
2	Chengam	168953	11269	6.66
3	Cheyyar	84757	5387	6.36
4	Polur	147046	14314	9.73
5	Thiruvanamalai	97015	9386	9.68
6	Vandavasi	87941	8014	9.11
Total		**631205**	**55972**	**8.87**

Source : Records of Office of Department of Revenue , Tiruvannamalai

From the above table, it could be seen that alkaline soils have concentrated in Arani, Polur and Thiruvannamali taluks.

v) Soil series and Extent in Tiruvannamalai District

The details of soil series found in the different taluks are furnished in Table 13.

Table 13. Details of Soil Series and Extent in Tiruvannamalai District

S. No	Soil Series	Extent		Taluks
		Ha	%	
1	Mathur	31760	7.3	Chengam, Cheyyar, Tiruvannamalai
2	Suramangala	29370	6.8	Arni. Chengam, Cheyyar, Polur, Vandavasi
3	Madippankulam	27788	6.5	Cheyyar, Tiruvannamalai, Vandavasi
4	Kurumbalur	17305	4.0	Arni, Chengam, Cheyyar, Polur
5	Idayapatti	14631	3.4	Arni, Chengam, Cheyyar, Polur
6	Kampattu	10684	2.5	Chengam
7	Mangalathupatty	9370	2.2	Arni
8	Tenneyur	6451	1.5	Vandavasi
9	Olagalapady	5966	1.4	Tiruvannamalai, Vandavasi
10	Mampattu	5934	1.4	Polur
11	Kanakkampattu	5747	1.3	Arni, Polur, Tiruvannamalai
12	Pachal	4286	1.0	Arni, Chengam, Cheyyar, Polur, Tiruvannamalai, Vandavasi
13	Rajapalayam	4103	1.0	Tiruvannamalai
14	Kattampoondi	2069	0.5	Arni, Cheyyar, Polur
15	Mangadu	2662	0.6	Arni, Cheyyar, Polur, Vandavasi
16	Kuppum	1287	0.3	Polur
17	Pallipalayam	389	0.1	Arni
18	Soil Association	251082	58.2	Arni, Chengam, Cheyyar, Polur, Tiruvannamalai, Vandavasi
Total		**430884**	**100.0**	

Source : Records of Office of Assistant Director of Statistics, Tiruvannamalai

From the table, it is evident that in Chengam taluk Kampattu soil series were predominant. Similarly in Arani taluk, Mangalathupatty and Pallipalayam soil series were prevalent. Mampattu soil series were found to an extent of 5.934 hectares in Polur taluk.

2.4. Land Use Pattern

The land use pattern of Tiruvannamalai district is furnished in Table. 14.

Table 14. Details of Land Use Pattern of Tiruvannamalai District

S.No	Classification	2005-2006 (in ha.)	Per cent
1	Forest	1,53,318	24.76
2	Barren and uncultivable land	21,058	3.40
3	Land put to non agricultural uses	92,598	15.00
4	Cultivable waste	14,963	2.41
5	Permanent pastures and other grazing land	2,908	0.46
6	Land under miscellaneous, tree crops and groves included in the net area sown	2,690	0.43
7	Current fallows	68,662	11.09
8	Other fallow lands	32,621	5.27
9	Net area sown	2,30,282	37.19
	Total Geographical area	**6,19,100**	**100.00**

Source: Records of Office of Department of Revenue, Tiruvannamalai

From the table, it could be clearly seen, that the total gross cropped area of the district was 3,04,929 and net area sown was 2,42,387 hectares in 2005-06. Further it could be seen that the forest area (24.76 per cent) occupied the major percentage over the total geographical area.

2.5. Irrigation and Ground Water Potential

i) Ground Water Potential

The block wise details of ground water potential of Tirvannamalai district are furnished in Table 15.

Table 15. Block Wise of details of Ground Water Potential of Tiruvannamalai District

Over Exploited (100%)	Critical (85 – 100%)	Semi Critical (60- 85%)
Chengam	Arni west	Anakavur
Kalasapakkam	Javadi west	Arni east
Kilpenathur		Chetpat
Polur		Cheyyar
Pudupalayam		Vembakka
Thandaranpattu		
Thiruvanamalai		
Thurinjipuram		
Vandavasi		

Source : Records of Office of Department of Revenue , Tiruvannamalai

From the table, it could be seen that over exploitation of ground water (100 per cent) was noticed in nine blocks of Chengam, Kalasapakkam, Kilpenathur, Polur, Pudupalayam Thandaranpattu, Thiruvanamalai, Thurinjipuram, Vandavasi. Critical (85-100 per cent) in Arni west and Javadi west blocks and Semi critical (60-85 per cent) was noticed in five blocks of Anakavur Arni east Chetpat Cheyyar and Vembakka of Thiruvannamalai district.

ii) Sources of Irrigation

Sources of irrigation of Thiruvannamalai district are furnished in Table 16.

Table 16. Details of Sources of Irrigation of Tiruvannamali District

(in numbers)

S.No	Source	2007-08
1	Canal	3,735
2	**Tank**	
	Major tanks	604
	Small tanks	1,361
3	**Wells**	
	Open wells	1,54,415
	Private borewells	1,050
	Dug-cum-bore wells	200
	Total	**1,61,365**

Source : Records of Office of Assistant Director of Statistics, Tiruvannamalai

From the table it could be seen that, the tanks and open wells were the major sources of irrigation in the district. The district had 604 major tanks (with ayacut of 40 ha. or more) and 1,361 small tanks (with ayacut of less than 40 ha.) There were 1,050 private borewells, 200 dug-cum-bore wells and 1,54,415 open wells in the district. Sathanur reservoir is built across the Thenpennai river with an ayacut of 18,882 ha and it benefits both Tiruvannamalai and Villupuram districts.

2.6. Development Vision and Strategy

The following steps were adopted to develop the vision and strategic plan of the district.

i) Formulation of Vision Statement

The aspirations and developmental needs of district were broadly spelt out to different stakeholders of the district keeping a specific time frame for achievement. The vision is prepared at the district level in consultation with all stake holders of the district. These stake holders acted as a guide for preparing the strategic plan.

The block / taluk level plan coordinators were identified and given guidance to collect the primary and secondary data of the district. The collected data were complied.

ii) Information Needs and Analysis

The information pertained to the district were collected and SWOT analysis was worked out. Based on the SWOT analysis, the needs and core sectors were identified to focus for further development.

iii) Discussion on the Vision

The identified sectors and needs were given to all panchayats and discussed in the meeting. The outcome of these discussions was given publicity in each village through meetings and various media.

iv) Preparation of Participatory Panchayat Plans

Grama Sabha meetings were conducted in the particular village involving all categories of the people. In this meeting, developed options for each classified sectors *viz.*, Agriculture, Horticulture, Animal husbandry, fisheries, plantation, marketing, horticulture, etc were discussed. Finally, the strategic plan of the district was prepared and approved by the District plan committee.

CHAPTER - III

SWOT ANALYSIS OF THE DISTRICT

3.1. Introduction

Tiruvannamalai district is mainly depending on Agriculture. It is industrially backward and about 70 per cent of the population depends on Agriculture for livelihood. The major crops are Paddy, Groundnut, Pulses, Millets, and Sugarcane and horticultural crops like tapioca, vegetables and flowers. It is benefited by both south west and North East Monsoon. The general climate is tropical. The credit needs of the farming community are met by the Primary Agricultural Cooperative Banks and 62 commercial banks situated in the district. Marketing of Agricultural products like Paddy, Groundnut and Pulses were carried out by the District Marketing Committee with 16 regulated markets spread over the district. Dairy and sericulture are the other income generating activities in the District (with 739 milk societies 2.6 lakhs liter of milk/ day and nearly 356 ha are covered under mulberry cultivation).

3.2 SWOT Analysis of the District

Strength

- Predominant soil type is red loamy & black. It is highly suitable for paddy, groundnut and pulses cultivation
- Prevailing climate is highly suitable for paddy, groundnut and pulse cultivation. Groundnut and pulses are being cultivated in rain fed as well as in irrigated conditions
- The cropping system (paddy- groundnut, paddy –pulses) followed in the district enriches the soil and maintain soil fertility
- Well organized marketing system through regulated markets.

Weakness

- Timely planting, weeding and harvesting are the major problems due to labour scarcity.
- Availability of certified seeds are very low
- Use of low cost inputs like bio-fertilizers and gypsum are very low
- Timely sowing in dry land is very difficult due to non availability of sufficient work animals and labourers.
- Low awareness on IPM concept and INM techniques (use of bio fertilizer DAP Spraying and application of gypsum)

Threats

- Migration of people towards urban areas hinders the agricultural growth
- Problem soils (alkaline soils) are one of the major problem in Arni, Polur and Tiruvannamalai blocks
- Over exploitation of ground water is also noticed in this distrsict.
- Farming is unattractive mainly because of increased input cost, poor credit availability, labour problems and non remunerative returns while disposing the harvested produce.

Opportunities

- Mechanization and labour saving implements will help to reduce the labour shortage
- The rehabilitation and development of tanks will help to increase the area under assured irrigation facility
- The precision farming and contract farming will go a long way to improve the returns considerably to the farmers
- Seed production can be achieved through seed village programme
- The small, tiny and medium sized industries in this district can be utilised to their full potential to reap the maximum benefits.
- Soil and water conservation work will help to increase the ground water potential.

Threats

- Migration of people towards urban areas hinders the agricultural growth
- Problem soils (alkaline soils) are one of the major problem in Arni, Polur and Thiruvannamalai blocks
- Over exploitation of ground water is also noticed in this distrsict.
- Farming is unattractive mainly because of increased input cost, poor credit availability, labour problems and non remunerative returns while disposing the harvested produce

3.3. Composite Index of Agricultural Development of Thiruvannamalai District

Agricultural Development of a district is a comprehensive multidimensional process involving large number of related indicators. Hence, it can be well represented by composite indices which are used as yardsticks not only to gauge the development of each district but also to compare its performance in relation to other districts. These indices help to classify the sub-regions based on a set of large multivariate data. The information contained in the large set is transformed into a small set of indices which would provide a convenient method for classification. There are many methods of classification based on multivariate data. Among them, one method which is statistically sound is that developed by Iyengar and Sudarshan.(1982). This method is simple and easy to apply and it helps to classify the districts into various stages of development, viz, 'highly developed', 'developed', 'developing', 'backward' and 'very backward'. In this method for each district a 'composite index' is constructed. The index lies between 0 and 1 with 1 representing 100% development and 0 representing no development at all.

It is assumed that there are'n' districts and 'm' development indicators and that X_{id} is the observed value of ith development indicator for the dth district (i = 1,2,3 … m, d = 1,2,3…n). First these values of development indicators for each district are to be

standardized. When the observed values are related positively to the development (as in the case of cropping intensity), the standardization is achieved by employing the formula

$$y_{id} = (X_{id} - Min\ X_{id}) / (Max\ X_{id} - Min\ X_{id})$$

where $Min\ X_{id}$ and are the minimum and maximum of respectively. When the values of X_{id} are negatively related to the development 9 as in the case of area under wastelands, problem soils etc.,) the standardized values will be computed by the formula

$$y_{id} = (Max\ X_{id} - X_{id}) / (Max\ X_{id} - Min\ X_{id})$$

Obviously the standardized indices lie between 0 and 1. The indices are then used to determine the weights of individual variable and then they are subjected to further statistical analysis by fitting suitable probability distribution to determine the cut-off points for classification of the districts into five categories as mentioned above. The detailed methodology can be found in Iyengar and Sudarshan (1982).

The data base for the current study on Thiruvannamalai district is taken from various government publications like Season and Crops Report and Economic Appraisal of Tamil Nadu for the fout periods viz., 1990-91, 1995-96, 2000-01 and 2005-06. In all, 25 indicators of agricultural development as given in Table 17 were used for estimating the composite index of development for the district. The 25 indicators were grouped into six different 'components': i) Crop-Area-Variables (10) ii) Irrigation (7) iii) Livestock (3) iv) Fisheries (1) v) Fertilizer (3) and vi) Cultivators and Labourers (2).

The analysis showed that Thiruvannamalai district which was classified as 'developed' in agricultural development in all the four time periods from 90-91 to 2005-06. In terms of overall agricultural development its rank among the 29 districts of Tamil Nadu varied from 5 to 11 during the 1990-91 to 2005-06. As far as the individual components of agricultural development are concerned, its ranks in the above periods are summarized in Table 18.

Table 17. Selected Indicators of Agricultural Development for Thiruvannamalai District

Component	Indicators	No.of Indicators
Crop-Area-Variables	Cropping Intensity	10
	% of Gross Cropped Area to Total geographical area	
	% Share of foodgrains to Gross Cropped Area	
	% Share of foodcrops to Gross Cropped Area	
	% Share non foodcrops to Gross Cropped Area	
	% Share of cultivable waste to total geographical area	
	% Area under High Yielding Variety-PADDY	
	% Area under High Yielding Variety-CHOLAM	
	% Area under High Yielding Variety-CUMBU	
	% Area under High Yielding Variety-RAGI	
Irrigation	Irrigation Intensity	7
	% of Gross Irrigated Area to Gross Cropped Area	
	% of Net Irrigated Area to net area sown	
	% Area under Canal Irrigation to Gross Irrigated Area	
	% Area under Tank Irrigation to Gross Irrigated Area	
	% Area under Well Irrigation to Gross Irrigated Area	
	% Area under other sources Irrigation to Gross Irrigated Area	
Livestock	Milk production (lakh tons)	2
	Egg production (lakhs)	
Fisheries	Inland + Marine fish production in tons	1
Fertilizer	Consumption of Nitrogen per hectare of Gross Cropped Area (tonnes)	3
	Consumption of Phosphorus per hectare of Gross Cropped Area (tonnes)	
	Consumption of Potassium per hectare of Gross Cropped Area (tonnes)	
Cultivators-Labourers	% of Cultivators to total population	2
	% of Agri.labourers to total workers	
	Total	**25**

Table 18. Rank of Thiruvannamalai District in terms of agricultural development among other Districts of Tamil Nadu during 1990-91 to 2005-06

Component of Composite Index		Crop-Area-Variables	Irrigation	Livestock	Fisheries	Fertilizer	Cultivators Labourers	Overall
Period	**1990-91**	11	12	7	-	-	3	11
	1995-96	6	8	9	16	20	5	10
	2000-01	8	7	7	13	15	4	10
	2005-06	5	3	7	13	17	5	5

CHAPTER - IV

DEVELOPMENT OF AGRICULTURE SECTOR

4.1. Introduction

The total geographical area of the district is 6,191 sq.km. Cheyyar and Tiruvannamalai are the two revenue divisions in the district. There were 18 Panchayat Unions/ Blocks covering 860 Village Panchayats and 10 Town Panchayats comprising of 1,067 revenue villages and 6, 31,205 hectares of geographical area. It constituted 4.85 per cent to the geographical area of Tamil Nadu State. As far as net area sown is concerned it constituted 4.63 per cent of the total net area sown of Tamil Nadu ie 2, 35,903 hectares. As for as gross area sown is concerned, it constituted 4.95 per cent gross area sown of Tamil Nadu State. The ten years average rainfall of the district was 1075.7 mm. Season wise, south west monsoon received 34 per cent, north east monsoon received 48 per cent, winter season received five per cent and summer season received 13 per cent of the total annual rainfall.

Agriculture is the main occupation of the district where in 61 per cent of cultivable area was under irrigation. The following are the normal area of the crops cultivated.

Paddy	- 90000 hectares
Total Millets	- 24,000 hectares
Pulses	- 24000 hectares
Sugarcane	- 17000 hectares
Oilseeds	- 100000 hectares

Agricultural allied activities are more prominent in this district. The district had 145 number of rice mills and rice mills were located in rice growing areas. In addition to that, rice bran oils extraction plant was also in operation.

The most important cash crop of the district is groundnut. It is cultivated both under irrigated and rainfed conditions. The area under groundnut occupied nearly 42 per cent of the total cultivated area of the district. Sugarcane is the next most important cash

crop of the District. Sugar mills are located at Cheyyar and Polur blocks. Sugar cane is supplied to some other mills, located out of the district like Moongilthuraipattu and Thirupathur. Pulses are also cultivated in most of the area of the Thiruvannamalai district.

Millets and minor millets are grown and the huge arrival in the Regulated markets illustrates the booming agricultural activities of the district. The area under maize is increasing year by year. All these activities clearly indicate that the district economy is completely depending upon the Agriculture.

4.2. Cropping Pattern

The details of cropping pattern of Thiruvannamalai district are furnished in Table 19**.**

Table 19. Details of Cropping Pattern of Thiruvannamalai District-2004-05

(Area in Hectares)

Crops	Irrigated	Unirrigated	Total (ha.)
Paddy	116660	160	116820
Sugarcane	17231	4	17235
Groundnut	36490	72143	108633
Sunflower	427	294	721
Gingelly	452	392	844
Coconut	766	283	1049
Cotton	2451	125	2576
Cholam	152	1525	1677
Cumbu	256	5795	6051
Redgram	123	2455	2578
Black gram	1096	3076	4172
Green gram	237	1162	1399
Cowpea	395	1633	2028
Fruits	3279	294	3573
Vegetables	3131	317	3448
Total	**183146**	**89658**	**272529**

Source : Season and crop Report of Tamil Nadu - 2005

From the table, it could be noted that the more area (1, 16,820 ha) was under paddy cultivation in the district followed by ground nut (1, 08,633ha).

4.3. Major Crops and Production in the District

a) Major Crops

Paddy, Sugarcane, Groundnut, Millets, Pulses, Gingelly and Cotton, Banana, Mango, Guava, Sapota, Jackfruit, Vegetables, Flowers, Chillies and Turmeric were the major crops of the district.

b) Production of Major Crops

The details of production of major crops in Thiruvannamalai district during 2004-05 are furnished in Table 20.

Table 20. Details of Production of Major Crops - 2004-05

Sl.No.	Name of the crop	Production (in Tonnes)
1	Rice	3.3
2	Cholam	0.011
3	Cumbu	0.020
4	Ragi	0.045
5	Maize	0.005
	Total millets	**1.107**
6	Total pulses	0.042
7	Total oilseeds	1.277
8	Coconut	158.25
9	Sugarcane	1.597

Source : Season and Crop Report of Tamil Nadu - 2005

c) Yield of the Major Crops

The details of yield of major crops are shown in Table 21. From the table, it could be seen that the productivity of paddy had increased from 2,829 kg/ ha in 2004-05

to 3,132 kg/ha in 2006-07. The productivity of groundnut had shown fluctuations during the period under consideration. The same phenomenon was observed in all the major crops with the exception of horsegram.

Table 21. Details of Yield of Major Crops

(Yield in kg/ha)

S.No.	Name of the crop	2004-05	2005-06	2006-07
1	Paddy	2829	2733	3132
2	Groundnut	1166	2190	1671
3	Cumbu	325	280	583
4	Ragi	1571	336	386
5	Black gram	430	268	558
6	Greengram	399	244	302
7	Maize	1672	--	1686
8	Samai	901	841	906
9	Horse gram	100	223	234
10	Gingelly	298	--	352
11	Sunflower	1063	--	1082
12	Sugarcane	92 Mt	82 Mt	95

Source: Records of Office of Assistant Director of Statistics, Thiruvannamalai

4.4. Problem Focus

The average productivity of Paddy crop is 5.5 tonnes/ hectare and the Potential Productivity is 7.5 tonnes /ha. Hence the yield gap of two tonnes could be attributed to variety, soil health and environment. Though the farmers are completely exploiting three seasons viz. Sornawari, Samba and Navarai, failure to enrichment of the soil is one of the major causes for the lower productivity. Second most important factor is the quality of the soil and water. These two factors are vital for increasing the productivity. As for as the cost of cultivation is concerned, high cost of labour forced the farmers to change the cropping pattern. For want of labour, the farmers could not take up even the inter cultivation operations in time. All these factors led to the decline in productivity.

The average productivity of the Groundnut crop is 2.5 tonnes/ha under irrigation. There is good scope to increase the area and productivity since there is good marketing demand. VRI.2 and TMV.7 are the major varieties taken up for cultivation. VRI.2 is mostly used for table purpose and TMV.7 and other varieties are used for oil extracting purposes. Since the demand for oil is ever increasing, the productivity has to be increased. Since oilseeds crops are exhaustic in nature, it depletes more nutrients from the soil. Therefore, nurturing the soil with organic and inorganic manures and micro nutrients is essential.

Again the problematic soil poses a problem in increasing the productivity. Therefore reclamation is warranted. Since water is a scarce input, its utilization has to be economized. Seepage of water limits the extent of irrigated cultivation. If it is minimized, the area under irrigation can be increased. The precision farming method may be adopted to utilize the available resources efficiently and economically. Since the technologies are changing every day, training to officials and farmers are warranted. Believing by seeing is the best method to advocate the farmers to adopt the latest technologies and exposure visit would strengthen the confidence of the farmers.

4.5. Scope for Reducing Yield Gap

i) Pulses

- Cultivation of Pulses as pure crop (Since 80 per cent of Pulses are grown as Inter Crop)
- Cultivation of short duration red gram variety, Co5, as inter Crop in irrigated ground nut, to replace long duration variety.
- Popularizing Green gram & Black gram as inter crop in Sugarcane and Oilseeds.
- Adopting of Black Gram as Bund Crop in Paddy fields and
- Adoption of DAP foliar Spray (@ 2% concentration) with supportive subsidy.

ii) Oilseeds

- Ensuing improved red kernel varieties over local red kernel variety
- PVC Pipe Lines for conveyance of water to a larger extent at subsidized cost and
- Introduction of Seed Drill for maintenance of plant population.

4.6. Crop wise Strategies Proposed

i) Paddy

- Quality seed distribution through enhanced SRI
- Improving the quality seed availability.
- Increasing the productivity with minimum usage of water through Systemic Rice Intensification techniques & line planting
- Supply of implements at subsidized cost to meet labour scarcity
- Distribution of Micro Nutrient Mixture to overcome deficiency and to enhance the productivity strength of the soil
- Pest and disease control through Bio-agents and IPM approach and through e-pest surveillance
- Soil health care through Bio-fertilizers distribution
- Increasing the area under suitable hybrid rice to increase per hectare production and
- Improving the humus contents of the soil-vermi composting and by raising green manure crops as *insitu.*

ii) Maize

- Increasing the area under Maize
- Encouraging dry land farmers through establishment of water conservation Technology Park
- Establishment of Rainfed Academy to provide training and village connectivity.
- Popularizing hybrids (including private) to enhance productivity and
- Distribution of M.N Mixture , bio-Fertilizers at 50 per cent subsidized cost

iii) Oilseeds

- Encouraging Hybrid sunflower seed mini kit demonstration
- Quality input supply through Seed Village concept
- Increasing productivity in groundnut and gingelly through micronutrient application, gypsum distribution and bio fertilizer application
- Pest and diseases control through IPM approach de-pest surveillance
- Encouraging integrated approach to increase farm income viz., dairy farming, Goat rearing/poultry etc.
- Encouraging water harvesting techniques to increase the availability of ground water level and ensure the critical irrigation needs
- Thrust to increase area under Sunflower
- Construction of Rural Godown
- Training Farmers
- Precision farming and
- Pipe line distribution

4. Changes in Extension Approaches

- Bottom up approach through ATMA
- Group based Training and knowledge updation to Commodity interest Groups
- Gender empowered agriculture through TANWABE and empowering farm women
- Involving Women SHG in quality seeds and seedlings production
- Integrated Farming approach for assured employment and increased income
- Availability of information at door step through AGRINET
- Encouraging exchange of ideas of farmers through Farmers Exchange programme.
- All Technologies to be made available at Block level and
- Agriculture, Agricultural Engineering, Horticulture & Agricultural Marketing – Departments to be functioned at Block level.

4.8. General Approaches

- Soil Health care
- Issue of Soil Health Card in a phased manner, encouraging the Green Manuring, Vermi compost, Organic farming to increase Soil Health
- Judicial use of Water
- Through micro irrigation SRI rain water harvesting techniques, etc
- Increase in Cropping Intensity
- Through Diversification
- Quality & Sustainable agricultural production
- Through Organic farming, IPM and INM
- Drudgery Reduction
- Through farm implements/Labour saving implements
- Quality input
- Through supply at right time, right place and affordable price
- Better marketing
- Through Contract Farming
- Agriculture Labour Welfare
- Through skill up gradation
- Diversification and
- Adoption of ideal cropping pattern suitable to the location.

4.9. Strategies to be Adopted

i) Seed

- Hybrid seeds can be used to increase the productivity
- Providing Certified Seeds at subsidised rate to replace the seeds of Farmers Choice
- Incentives may be given to TANWABE to take up Hybrid Seed Production and
- Hybrid Seed Production and Distribution may be provided with subsidies to encourage Farmers of TANWABE and FIG

ii) Soil

- Green Manure seeds may be distributed to enrich the soil with organic content and nutrient.
- Soil and water testing may be taken up and Soil Health card has to be distributed to farmers
- Assistance may be provided to vermi compost unit and
- Subsidies may be granted for the distribution of Micro Nutrient Mixture and Gypsum

iii) Machineries

To overcome the shortage of Agricultural labourers, mechanization needs a greater attention.Ploughing, planting, intercultivation operations and harvest demands mechanization. Power tiller, Paddy seedlings transplanter, marker and weeder and harvester were some of the machineries to solve the problem of labour shortage.

iv) Technology Transfer

The technology available as on date must be transferred to the farmers. For effective dissemination of improved and new technologies, conducting village campaigns, laying out field demonstrations in blocks and outsourcing tours to other places within state and outside state etc are proposed.

4.10. Ongoing schemes of Agricultural Sector

i) Seed Procurement & Distribution

		Beneficiaries	
Paddy	: 506 M.T.	6553 Nos	Rs.79.473 Lakhs:
Millets	: 3M.T	105 Nos	
Pulses	38M.T	36 - 2218 Nos	Rs. 11.912 Lakhs

2. National Pulses Development Programme : Rs.3.045 Lakhs
3. Sugarcane Development Scheme
   Release of Parasites : Rs.0.17895 lakh
4. Technology Mission on Cotton : Rs.8.69075 Lakhs

5. Increasing the Production of Oilseeds	: Rs.82.756 Lakhs
Procurement	: 423 M.T.
Distribution	: 407 MT
6. Oilseeds Production Programme	: Rs.63.458 Lakhs
7. Coconut Development Scheme (State Scheme)	: Rs.1.010 Lakhs
8. Coconut Development Scheme	
(Cochi assistance)	: Rs.1.550 Lakhs
9. Plant Protection Scheme	: Rs.5.34446 Lakhs
10. Crop Yield Competition	: Rs.0.12425 Lakhs

ii) Seed Multiplication Schemes- 2005-06

a. Procurement and Distribution of Seeds.

Paddy Seeds Procurement	-	10.90 tonnes
Millets	-	3.625 tonnes
Paddy Seed Distribution	-	762.400 tonnes
Beneficiaries	-	10029 farmers
Millets Distribution	-	1.6 tonnes

b. Procurement of Paddy & Millets seeds	-	Rs.83.845 Lakhs
Pulses seeds procurement	-	36.684 tonnes
Distribution	-	38.627 tonnes
Beneficiaries	-	3254 farmres
Procurement & Distribution of Pulses	-	Rs.10.820 Lakhs
3. Technology Mission on Cotton	-	Rs. 9.335 Lakhs
4. ISOPOM – Oilseeds	-	Rs.45.01 Lakhs
5. Seed Multiplication scheme –Oilseeds	-	
Distribution of Seeds	-	527 tonnes
Beneficiaries	-	2635 farmers
Procurement of Seeds	-	449 tonnes
Beneficiaries	-	390 farmers
6. Procurement and Distribution of oilseeds	-	Rs.84.91518 Lakhs

7. Plant Protection scheme	-	Rs. 5.11136 Lakhs
8. Integrated Cereal Development Programme	-	Paddy

2. Seed Multiplication scheme-2006-07

1. Procurement and Distribution of Seeds

Paddy procurement	-	1094 tonnes
Distribution	-	894 tonnes
Procurement & Distribution	-	Rs. 105.187 Lakhs
Millets procurement	-	Rs. 11.6 Lakhs
Distribution	-	Rs. 8.565 Lakhs
Pulses Procurement	-	53.516 tonnes
Distribution	-	60.500 tonnes
Procurement & Distribution	-	Rs. 22.139 Lakhs

2. ISOPOM - Pulses	-	Rs. 16.35991 Lakhs
5. Technology Mission on Cotton	-	Rs.8.08414 Lakhs
6. Increasing the production of Oilseeds	-	
Seed Procurement	-	767.471 tonnes
Seed Distribution	-	501.305 tonnes
Beneficiaries	-	2500 farmers
Procurement & Distribution	-	Rs.98.59923 Lakhs
7. Isopom – Oilseeds	-	Rs. 105.226 Lakhs
Beneficiaries	-	3685 farmers
8. Plant Protection scheme	-	Rs. 8.02786 Lakhs
9. Integrated Cereal Dev. Prog.- Paddy	-	Rs. 1.21800 Lakhs
10. Intensive Cotton Dev. Programme	-	Rs. 0.67500 Lakhs
11. Oilseeds Production Programme	-	Rs. 1.81440 Lakhs
12. National Pulses Dev. Prog.	-	Rs. 1.38300 Lakhs

4.11. Interventions

4.11.1 Seed -

- Seed production and distribution of paddy, groundnut, gingelly, millets and maize
- Usage of hybrid seeds used to increase the productivity
- Providing Certified Seeds at subsidised rate to replace the seeds of Farmers Choice
- Incentives to be given to TANWABE to take up Hybrid Seed Production and
- Hybrid Seed Production and Distribution may be providedwith subsidies to encourage Farmers of TANWABE and FIG

4.11.2 Soil -

- Green Manure seeds to be distributed to enrich the soil withganic content and nutrient (or)
- Soil and water testing may be taken up and Soil Health card will be distributed to Farmers.
- Assistance to be provided to vermi compost unit and
- Subsidies to be granted for the distribution of Micro Nutrient Mixture and Gypsum

4.11.3 Machineries and Equipments

To overcome the shortage of Agricultural Labourers, Mechanization needs a greater attention, ploughing, planting, intercultivation operations and harvest demands mechanization. Power tiller, paddy seedlings transplanter, marker and weeder and harvester are some of the machineries to solve the problems of labour shortage.

4.11.4 Technology Transfer

The technology available as on date has to be transferred to the farmers. For effective dissemination of improved and new technologies, conducting village campaigns, laying out field demonstrations in blocks and outsourcing tours to other places within State and outside State etc are proposed.

CHAPTER - V

DEVELOPMENT OF ALLIED SECTOR

5.1. Horticulture Development

5.1.1. Ongoing Schemes for the Year 2006-08

The following table clearly indicated that the on going schemes and its physical and financial achievements during the year 2006-07.

Table 22. Details of Ongoing Schemes of Horticulture Department 2006-07

Scheme	Target		Achievement	
	Physical Area (ha)	Financial (Rs. in lakhs)	Physical Area (ha)	Financial (Rs. in lakhs)
Integrated Horticulture Development Scheme				
Fruit crops	13	18	13	18
Vegetables	885	1010	885	1010
Spices	107	112	107	112
Total	**1005**	**1140**	**1005**	**1140**
Integrated tribal development programme				
Individual orchards	150	4.400	150	4.400
Micro irrigation				
Installation of Drip irrigation at 50 % subsidy	1008.19	233.660	74,48	43.00

From the table, it could be inferred that the integrated horticultural scheme was implemented in 1005 hectares in 2006-07 with financial amount of Rs. 1,140 lakhs followed by Integrated Tribal Development Programme in 150 hectares with Rs. 4.40 lakhs. The details of ongoing schemes for 2007-08 are furnished in Table.23.

Table 23. Details of Ongoing Schemes of Horticulture Department 2007-08

Scheme	Target		Achievement	
	Physical Area (ha)	Financial (Rs. in lakhs)	Physical Area (ha)	Financial (Rs. in lakhs)
Integrated Horticulture Development Scheme				
Fruit crops	127	13	127	13
Vegetables	885	926	885	926
Spices	107	135	107	135
Total	**1119**	**1200**	**1119**	**1200**
Integrated Tribal Development Programme				
Individual orchards	150	4.408	150	4.408
Micro Irrigation				
Installation of Drip irrigation at 50 % subsidy	570.99	93.780	26.00	7.000

From the table, it could be inferred that the integrated horticultural scheme was undertaken in 1,119 hectares with financial amount of Rs.1200 lakhs followed by Integrated Tribal Development Programme in 150 hectares with Rs.4.40 lakhs. The micro irrigation scheme was undertaken in 570.99 hectares with an outlay of Rs.93.780 lakhs. However, only 26.00 hectares were covered by micro irrigation.

5.1.2. Proposed Interventions

a) Nursery and Vegetable Production
b) Pandal for Vegetable Production
c) Package for Plant Protection
d) Plastic Crates for Vegetable handling and transport
e) Cashew high density planting
f) Bore well with Casing Pipe
g) Humic Acid/ Effective E Microbes
h) Banana Bunch Cover
i) Tractor mounted Steam Boiler
j) Support system for Crops (Banana)

k) Banana Corm Injector
l) Mango Harvester
m) Sales Outlet Points in District (Rent and Infrastructure)
n) District Level Farmers Workshop
o) Inner State Exposure visit (5days)
p) 10 Ha Mega Demo Plot for the District
q) Distillation Unit

5.2. Animal Husbandry

5.2.1 Strength / Gaps

A. Dairy

i) Strength

- Regular guaranteed income
- Easy marketing – competitive price
- More number of dairies

ii) Weakness

- Scarcity of green fodder
- Rise in market rate of cows
- Problems in disease control

B.Sheep & Goat

i) Strength

- Well adapted breed
- Traditional farming practices
- Enhanced marketing

ii) Weakness

- Shortage of grazing lands
- Non-availability of proven stock
- Disease control

C. Poultry Farming

i) Strength

- Backyard poultry
- Potential for exploitation
- Enhanced technical assistance

ii) Weakness

- High organised farming cost
- Fluctuating marketing price
- High chick and feed cost

5.2.2 Interventions Required Areas

- Green fodder development
- Financial Assistance for Animal component
- Incentive to farmers through cards
- Improved livestock health care
- Hygienic utilization of offal and
- Capacity building protocols

5.3. Fisheries Sector

5.3.1. Gaps Identified

- Lack of proper infrastructure facilities for seed rearing, fish landing and marketing
- Average present fish production in long seasonal tanks being 250 kg/ha against potential 1500 kg/ha.
- Unscientific way of fish seed stocking & harvesting needs great concern.
- Lack of post harvest facilities like cold storage/ fish processing unit in the fish landing area.

5.3.2. Intervention Required Areas

- Infrastructure development to attain self sufficiency in seed production through private and Government.
- Expansion of fish culture in all water bodies
- Infrastructure development to modernize the existing marketing facilities in key areas and
- Training programmes to the fisher farmers for developing capacity building

5.4. Agricultural Engineering

5.4.1. Ongoing Schemes during 2007-2008

Table 24. Details of Ongoing Schemes of Agricultural Engineering Department

(Rs. in lakhs)

Sl.No	Name of the Scheme	Annual target		Target upto March-08		Achivement upto Mar -08		Remarks
		Phy	Fin	Phy	Fin	Phy	Fin	
1	**Land Development Scheme**							
	Bulldozer							Hire charges
	AEE/AE/Arni (Hrs)	1100	-	1100	-	1113	-	Rs.670/hour
	Tractor							
	AEE/AE/TV malai (Hrs)	1000+100	-	1100	-	1100	-	Rs.265/hour
	AEE/AE/Arni (Hrs)	1000	-	1000	-	1000	-	
	Total	**2100**	**-**	**2100**	**-**	**2100**	**-**	
	Combined Harvester (Hrs)	90	-	90	-	55	-	Rs.780/hour
2	**Minor Irrigation scheme**							
	Rock Blasting Unit (in blastings)							
	AEE/AE/TV malai PKP-12034	150		150	-	150	-	Rs.250/-per day (20 Blastings)
	PKP-12118	150	-	150	-	150	-	
	PKP-17186	150	-	150	-	150	-	
	Total	**450**	**-**	**450**	**-**	**450**	**-**	
	AEE/AE/Arani PKH-12088	150	-	150	-	150	-	
	PKH-12117	150	-	150	-	150	-	
	Total	**300**	**-**	**300**	**-**	**300**	**-**	
	Grand Total	**750**	**-**	**750**	**-**	**750**	**-**	
	Geo-physical survery(points)	165	-	165	-	170	-	For agri Rs.500 For non agri Rs.1000/-

Table 24. Contd….. **(Rs. in lakhs)**

Sl.No	Name of the Scheme	Annual target		Target upto March-08		Achivement upto Mar -08		Remarks
		Phy	Fin	Phy	Fin	Phy	Fin	
3	**Integrated Tribal Development programme**							
	1) Land shaping Ha.	20.00.0	2.00	20.00.0	2.00	20.77.5	2.00	**Subsidy pattern**
	2) Water Conveyance through PVC pipe Ha	40.00.0	4.00	40.00.0	4.00	40.62.0	4.00	
	3) Contour stone wall Ha	40.00.0	6.00	40.00.0	6.00	40.33.5	6.00	**100 %**
	4) Major check dam Nos	3	3.00	3	3.00	3	3.00	
	5) Minor check dam Nos	4	2.00	4	2.00	4	2.00	
	Total	**100.00.0**	**17.00**	**100.00.0**	**17.00**	**101.73.0**	**17.00**	
	No of beneficiaries Nos	100	-	100	-	102	-	
4	**Rain Water Harvesting Structures under Soil Conservation Scheme**							
	1) Minor check dam Nos	20	5.00	20	5.00	20	4.967	Subsidy pattern
	2) Medium check dam Nos	20	10.00	20	10.00	20	9.972	
	3) Percolation pond Nos	2	6.00	2	6.00	2	3.835	For others 10% contribution
	4) Rejuvenation of Wells Nos	10	2.60	10	2.60	16	2.660	For common and individual works
	5) Farm / Sunken pond Nos	44	17.80	44	17.80	52	20.360	
	6) Recharge shaft Nos	18	4.50	18	4.50	19	4.191	For SC/ST 5% contribution for common and individual works
	7) New Village tank Nos	2	3.00	2	3.00	2	2.985	
	Total	116	48.90	116	48.90	131	48.97	
	Creation of Farm ponds under free distribution of Two acres Waste land in Cluster Area	50	2.20	-	-	48	2.13	
	Total	**166**	**51.10**	**166**	**51.10**	**179**	**51.10**	

Table 24. Contd….. **(Rs. in lakhs)**

Sl.No.	Name of the Scheme	Annual target		Target upto March-08		Achivement upto Mar -08		Remarks
		Phy	Fin	Phy	Fin	Phy	Fin	
5.	**Agricultural Mechanization Programme**							
	1) Tractor AEE/AE/TV malai	3	0.90	3	0.90	4	1.20	25% cost of the machinery or Rs.30,000/-which ever is less
	AEE/AE/Arani	2	0.60	2	0.60	2	0.60	
	Total	**5**	**1.50**	**5**	**1.50**	**6**	**1.80**	
	2) Power tiller AEE/AE/TV malai	50	15.00	50	15.00	29	7.803	25% cost of the machinery or Rs.30,000/-which ever is less
	AEE/AE/Arani	55	16.50	55	16.50	60	16.50	
	Total	**105**	**31.50**	**105**	**31.50**	**89**	**24.303**	
	3) Rotavator AEE/AE/TVmalai	7	1.40	7	1.40	44	8.744	25% cost of the machinery or Rs.20,000/-which ever is less
	AEE/AE/Arani	8	1.60	8	1.60	9	1.800	
	Total	**15**	**3.00**	**15**	**3.00**	**53**	**10.544**	
	Other implements AEE/AE/TV malai	5	0.50	5	0.50	1	0.042	25% cost of the machinery or Rs.10,000/-which ever is less
	AEE/AE/Arani	6	.0.60	6	0.60	9	0.395	
	Total	**11**	**1.10**	**11**	**1.10**	**10**	**0.437**	
	Grand Total	**136**	**37.10**	**136**	**37.10**	**158**	**37.084**	
6	**Demonstration** Nos	30	0.75	30	0.75	30	0.75	@ Rs.2500/Demo.
7	**Farmers Training**							
	AEE/AE/TV malai	1 batch	0.25	1 bacth	0.25	1 batch	0.25	100%
	AEE/AE/Arani	2 batch	0.50	2 batch	0.50	2 batch	0.50	
	Total	**3 batch**	**0.75**	**3 batch**	**0.75**	**3 batch**	**0.75**	

Table 24. Contd….. **(Rs. in lakhs)**

Sl.No.	Name of the Scheme	Annual target		Target upto March-08		Achivement upto Mar -08		Remarks
		Phy	Fin	Phy	Fin	Phy	Fin	
8	**Reclamation of Alkali Soil**							25% Subsidy
	AEE/AE/Arani Ha	55.50.0	0.50	55.50.0	0.50	55.50.0	0.50	Below 5 Hp for others
9	**Replacement of Old Motor Pumpset**							25% cost of motors or Rs.2500/- which ever is less
	Others							
	Below 5 HPAEE/AE/T.V.malai	134`	5.36	134	5.36	117	4.680	
	AEE/AE/Arani	300	12.00	300	12.00	204	8.156	For special Component plan 50% cost of motor or Rs.3500/- whichever is less
	Total	**434**	**17.36**	**434**	**17.36**	**321**	**12.836**	
	5 HP and above							
	AEE/AE/T.V.malai	222	17.42	222	17.42	295	18.102	5 HP and above
	AEE/AE/Arani	144	10.74	144	10.74	245	14.582	For others 25% cost of motors or Rs.5000/- which ever is less
	Total	**366**	**28.16**	**366**	**28.16**	**540**	**32.684**	
	Special component Plan							For special Component plan
	Below 5 HP AEE/AE/T.V.malai	12	0.60	12	0.60	23	1.15	50% cost of motor or Rs.6000/- which ever is less
	AEE/AE/Arani	13	0.65	13	0.65	23	1.15	
	Total	**25**	**1.25**	**25**	**1.25**	**46**	**2.30**	
	5 HP and above							Electirical accessories
	AEE/AE/T.V.malai	80	5.075	80	5.075	62	4.525	Other and Spl.Comp.
	AEE/AE/Arani	80	5.075	80	5.075	61	4.575	50% cost of accessories or Rs.1500/- which ever is less
	Total	160	10.15	160	10.15	123	9.100	
	Grand Total	**985**	**56.92**	**985**	**56.92**	**1030**	**56.92**	

Table 24. Contd….. **(Rs. in lakhs)**

Sl. No	Name of the Scheme	Annual target		Target upto March-08		Achivement upto Mar -08		Remarks
		Phy	Fin	Phy	Fin	Phy	Fin	
10	**IAMWARM Scheme**							Subsidy pattern
	a) Drip Irrigation							
	AEE/AE/Arani Ha.	0.73.0	0.20	0.73.0	0.20	0.73.0	0.196	
	b) Sprinkler Irrigation							
	AEE/AE/Arani	77.35.0	5.85	77.35.0	5.85	78.05.0	5.854	50%
	AEE/AE/TV malai	34.00.0	2.50	34.00.0	2.50	37.05.0	2.500	
	Total	**111.35.0**	**8.35**	**111.35.0**	**8.35**	**115.10.0**	**8.354**	
	Grand Total	**112.08.0**	**8.55**	**112.08.0**	**8.55**	**115.83.0**	**8.55**	
11	**Centrally Sponsored scHeme for Micro Irrigation**							
	Mango							
	AEE/AE/T.V.malai	246.72.0	24.365	246.72.0	24.365	8.36.0	-	
	AEE/AE/Arani	246.72.0	24.365	246.72.0	24.365	32.12.0	-	
	Total	493.44.0	48.73	493.44.0	48.73	40.48.0	-	
	Amla, Guava, Sappotta,tamarid							50 % subsidy
	AEE/AE/T.V.malai	109.65.0	18.17	109.65.0	18.17	15.57.0	-	
	AEE/AE/Arani	109.65.0	18.17	109.65.0	18.17	16.90.0	-	
	Total	**219.31.0**	**36.34**	**219.31.0**	**36.34**	**32.47.0**	-	
	Grand Total	**712.75.0**	**85.07**	**712.75.0**	**85.07**	**72.95.0**	-	

Table 24. Contd….. **(Rs. in lakhs)**

Sl. No	Name of the Scheme		Annual target		Target upto March-08		Achivement upto Mar -08		Remarks
			Phy	Fin	Phy	Fin	Phy	Fin	
12	**Land Development Works under Free distribution of 2 Acre Wasteland to Poor Agricultural Labour Families**								
	Phase-I Acre	Category -1	417.82	7.84	-	-	417.82	5.88	
		Category-III	254.14	4.15	-	-	-	-	
	Phase-II	Category-I	38.54	0.472	-	-	38.54	0.472	
	Phase-III	Category-I	48.44	0.726	-	-	48.44	0.115	
		Category-II	32.69	0.527	-	-	32.69	-	
		Category-III	12.33	0.226	-	-	12.33	-	
	Phase-IV	Category-II	38.04	0.45	-	-	38.04	-	
		Category-III	438.56	10.13	-	-	-	-	Proposal sent to P.O./DWDA/
	Phase V	Category-I	35.98	0.66	-	-	-	-	
	Phase VI	Category-I	28.13	0.52	-	-	-	-	
		Category-II	22.17	0.27	-	-	-	-	

Source: Records of Office of Executive Engineer, (AED), Tiruvannamalai

5.4.2. Interventions Required Areas

1. Stream-I

a. Introduction of newly developed Agricultural machineries / Implements

b. Innovative Water Harvesting Structures and

c. Promoting concept of Mechanized Villages

2. Stream-II

a. Popularization of Agricultural Mechanization through conventional machinery/ equipments

b. Conventional Water Harvesting Structures

c. Soil Conservation Works and

d. Water Management Works

Water Harvesting Structures and 90 per cent subsidy have been proposed for individual Water Harvesting Structures, soil conservation works and water management works.

2. Project Components

Stream-I

a. Introduction of Newly Developed Agricultural Machinery/Implements like Mini Combined Harvestesr, Multi Crop Thrasher, Paddy Transplanter, Maize Husker Sheller, Coconut Dehusker, Groundnut Decordicator, Chisel plough, Tractor Operator combined Harvester, etc.,

b. Innovative Water Harvesting Structures like Lined Farm Ponds, Rejuvenation of Percolation Ponds with Recharge shafts and

c. Promoting the concept of Mechanized Villages through distribution of crop based package of Agricultural Machinery

Stream-II

a. Popularization of conventional machinery/equipments like Power Tiller, Rotavator, Cultivator, offset Disc Harrow, Disc Plough etc.

b. Water Harvesting Structures like Farm Ponds, Check dams, Percolation Ponds, Recharge shaft, New Village Tanks etc., and

c. Soil Conservation Works like Compartmental bunding, Land shaping and Terrace.

5.5. Agricultural Marketing

5.5.1. Interventions Required Areas

1. Establishment/ organization of commodity groups for marketing in the State
2. Facilitation of Contract Farming between farmers and bulk buyers.
3. Dissemination of Market intelligence
4. Arrangement of Buyers - Sellers Meet
5. Organizing the exposure visits to important markets with in the State and out side the State by commodity groups / farmers and extension functionaries.
6. Strengthening of market extension centre at each district/ block level for capacity building and dissemination of marketing information.
7. Strengthening of selected village shandies
8. Capacity building of farmer's skill
9. Price surveillance
10. Regulated Market / Uzhavar Shandies publicity and
11. Market Infrastructure

5.6. Water Resource Organisation

5.6.1. Details of on Going Schemes

The details of on going schemes at water resource organization are furnished in Table.25.

IAMWARM – Varahanathi Basin

Table 25. Details of Ongoing Schemes for the Year 2008-09

(Rs. in Lakhs)

Sl. No.	Name of Work	No. of tanks	Spill over value as on 1.4.2008	B.E. 2008-2009	Nature of works to be carried out
1)	Rehabilitation and Modernisation of Supply Channel and all tanks covered under Varahanadhi Sub basin in Kilpennathur, Thurinjapuram blocks of Tiruvannamalai Taluk of Tiruvannamalai District Package. No. 01 / IAMWARM / VNSB / WRO / LPBD / NCB / 06-07 Est.Rs. 86.00 Lakhs	9 Nos.	63.13	60.00	Rehabilitation of tanks and supply channel.
2)	Rehabilitation and Modernisation of Supply Channel and all tanks covered under Varahanadhi Sub basin in Pernamallur & Thellar blocks of Vandavasi Taluk of Tiruvannamalai District. Package. No. 02 / IAMWARM / VNSB / WRO / LPBD / NCB / 06-07 Est, Rs. 74.80 Lakhs.	13 Nos.	47.20	47.20	Rehabilitation of tanks and supply channel.
3)	Rehabilitation and Modernisation of Supply Channel and all tanks covered under Varahanadhi Sub basin in Thellar block of Vandavasi Taluk of Tiruvannamalai District. Package No. 03 / IAMWARM / VNSB / WRO / LPBD / NCB / 06-07. Est. Rs. 87.42 Lakhs	8 Nos.	43.26	41.02	Rehabilitation of tanks and supply channel.
	Total :	**30 Nos.**	**153.59 Lakhs**	**148.22 Lakhs**	

5.6.2. Problem Focus

i) Gaps Identified / Constraint Analysis

Total population of Tiruvannamalai District is about 21, 81,853. Out of this, the agricultural population engaged in the Irrigation activities were 3, 57,117. Hence, Agricultural is the main occupation of the people of this District. One of the major problem faced in the Agriculture is the water scarcity for irrigation purposes. Even though by about 74,000 hectares have been registered as wet land in this district, due to poor maintenance of the various tanks and channels, the rain water fails to reach the tanks due to heavy girth of vegetation and siltation in the tanks, the storage capacity of the tanks also considerably reduced. The tank bunds were below standard in width and height. The tank sluices and weirs were leaky.

Therefore, it is important to renovate the existing anicuts and tanks and channels under these anicuts on massive scale to ensure full conservation of the water during the rainy season and to deliver the water through sluices without any wastage to the fields.

ii) Interventions Required Areas

1. Rehabilitation of Anicuts
2. Rehabilitation of Tanks and Supply Channels

CHAPTER - VI

DISTRICT PLAN

1. Agriculture Sector

6.1. Rice

Details of recommended interventions along with the costs for rice are furnished in Table 26.

Table 26. Details of Area under Rice Crops and Expected Yield

Rice	Normal	2007-08	2008-09	2009-10	2010-11	2011-12
Area in lakh ha.	1.03	1.25	1.30	1.35	1.40	1.46
Productivity (Kg/ha.)	3264	3700	4200	4950	5750	6600
Production (L.T)	3.36	3.46	5.46	6.6825	8.05	9.636

6.1.1. Components and Interventions

The details of area under rice and expected yield over years are furnished in Table 27. It is programmed to increase the production and productivity to the tune of 9.60 lakhs tonnes and 6,600 kg/ha respectively during 2011-12.

Table 27. Details of recommended Interventions with Cost

(Rs. in lakhs)

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost	No of units	Total cost	No of units	Total cost	No of units	Total cost	Units	Cost
Seed												
One time grant to TANWABE/ FIG to take certified seed production and distribution @ Rs.50,000/ group for 23 districts (30tonnes/ Annum)	0.5	Tonnes	**6.0**	3	**17**	8.5	**0.00**	0.00	**0.00**	0.00	**23**	**11.5**
Incentives for seed production to SHGs @Rs. 3/kg-TABWAVE groups	0.03	Tonnes	**180**	5.4	**510**	15.3	**510**	15.30	**510**	15.30	**1710**	**51.30**
Seed production subsidy for the seeds produced y SHGs @Rs.5/kg$	0.05	Tonnes	**180**	9.0	**180**	9.0	**180**	9.0	**180**	9.0	**720**	**36.0**
Supply of quality seeds at nominal cost to enhance the SRR @Rs. 5/kg **(Dept 17%+ Private=50% area)**	0.05	Tonnes	**500**	25.0	**3750**	187.5	**3750**	187.50	**3750**	187.50	**11750**	**587.5**
Seed minikit of new HYV @Rs. 100/minikit	0.001	No	**2400**	2.4	**2500**	2.5	**2540**	2.54	**2600**	2.60	**10040**	**10.04**
Hybrid rice seed production subsidy @Rs. 20/kg FIG/ TABWAVE groups@10Ac/ group (4tonnes) (100roups)	0.2	Tonnes	**0.25**	0.05	**4**	0.8	**4**	0.80	**4**	0.80	**12**	**2.4**
Hybrid rice seed distribution subsidy -75% cost or Rs.100/- whichever is less	**1.0**	Tonnes	**2.00**	2.0	**4**	4	**4**	4.0	**4**	4.0	**14**	**14**

Table 27. Contd…. **(Rs. in lakhs)**

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost	No of units	Total cost	No of units	Total cost	No of units	Total cost	Units	Cost
Integrated Nutrient Management												
Distribution of green manure seeds @75 % subsidy of Rs.15/kg	0.15	Ton nes	**10.0**	1.5	**50**	7.5	**50**	7.50	**50**	7.50	**160**	**24.0**
Distribution of soil health card manure @25 / card (Soil + water testing)	25	L.No	**0.20**	5.0	**0.20**	5.0	**0.20**	5..0	**0.20**	5.0	**0.8**	**20.0**
Assistance to start vermin compost production unit @ Rs. 10,000/ unit(self help group women farmers)	0.1	No	**20**	2.0	**50**	5	**100**	10.0	**125**	12.50	**295**	**29.5**
Distribution of micro nutrient mixture @ Rs. 500/ha or 50 % subsidy	500	L.ha	**0.05**	25.0	**0.15**	75.0	**0.17**	85.0	**0.17**	85.0	**0.54**	**270**
Gypsum 500kg/ha @ Rs.500/ha	500	L.ha	**0.40**	200.0	**0.41**	205	**0.42**	210	**0.43**	215.0	**1.66**	**830**
Integrated Pest Management												
FFS @17000/No	0.17	No	**17**	2.89	**34**	5.78	**34**	5.78	**34**	5.78	**119**	**20.23**
IPM@500/ha	500	L.Ha	**0.12**	60.0	**0.13**	65.0	**0.13**	65.0	**0.13**	65.0	**0.51**	**255.0**
Massive Rat control campaign in village@ Rs. 5000/village	0.05	No	**170**	8.5	**350.**	17.5	**350**	17.5	**350**	17.5	**1220**	**61.0**
Publicity and training @ Rs. 50,000/ district	0.5	No	**2**	1	**2**	1	**2**	1.0	**2**	1.0	**8**	**4.0**
Machineries and Equipment												
Promotion of SRI, distribution of marker, cono weeder and other items	0.075	L.ha	**0.08**	0.006	**0.09**	0.0068	**0.10**	0.01	**0.11**	0.01	**0.38**	**0.0328**

Table 27. Contd…. **(Rs. in lakhs)**

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost	No of units	Total cost	No of units	Total cost	No of units	Total cost	Units	Cost
Transplanter to TANWABE /FIG/ farmers @ Rs. 75,000 each or 50 % subsidy	0.75	No	**2**	1.5	**5**	3.75	**5**	3.75	**10**	7.50	**22**	**16.5**
Power tiller @Rs.75,000 each or 50% subsidy	0.75	No	**10**	7.5	**40**	30	**40**	30	**40**	30.0	**130**	**97.5**
Distribution of paddy transplanter @. 75,000/ or 50% subsidy	0.75	No	**2**	1.5	**5**	3.75	**5**	3.75	**10**	7.5	**22**	**16.5**
Power thrasher @ Rs. 50,000/ no	0.5	No	**2**	1.0	**5**	2.5	**5**	2.5	**10**	5.0	**22**	**11.0**
Technologies												
Demonstration on SRI / Hybrid rice @ 1 demonstration/ 100ha	0.075	No	**1200**	90.0	**1250**	93.75	**1270**	95.25	**1300**	97.50	5020	**376.5**
Village campaigns- Kharif/ Rabi @Rs. 1000/ campaign	0.01	No	**100**	1.0	**250**	2.5	**250**	2.50	**250**	2.50	850	**8.5**
Production of short film on new technologies each Rs. 2.5 lakhs	2.5	No	**1**	2.5	**0**	0	**0**	0	**0**	0	1	**2.5**
Others												
Tarpaulin @Rs. 2000/ no	0.02	No	**250**	5.0	**300**	6.0	**350**	7.0	**400**	8.0	**1300**	**26.0**
Bio fertilizer @50% subsidy @Rs. 3/ No	3.0	Lno	**0.25**	0.75	**1.4**	4.2	**1.4**	4.20	**1.40**	4.20	**4.45**	**13.35**
Publicity /POL @ Rs. 50,000/district	0.5	No	**1**	0.5	**1**	0.5	**1**	0.50	**1**	0.50	**4**	**2.0**
Thrashing floor @ Rs. 1,00,000/ No	1.0	No	**10**	10	**20**	20.0	**30**	30.0	**40**	40.0	**100**	**100**
Reclamation of problem soil (RS. 3150 or 90% subsidy)	**3150**	L. Ha	**0.01**	31.5	**0.02**	63.0	**0.02**	63.0	**0.02**	63.0	**0.07**	**220.5**
	Total											**3117.44**

6.1.2. Groundnut – Irrigated

The details of expected area, production and productivity of groundnut (irrigated) over years along with normal area, production and productivity of the said crop are furnished in Table. 28. It could be seen that production and productivity could increase to 2.275 lakh tonnes and 3250 kg./ ha in 2011-12.

Table 28. Details of Area under Groundnut (Irrigated) Crop and Expected Yield

Groundnut	Normal	2007-08	2008-09	2009-10	2010-11	2011-12
Area in lakh ha	0.48	0.63	0.65	0.67	0.68	0.7
Productivity (Kgs)	2050	2500	2600	2750	3000	3250
Production (L.T)	0.984	1.20	1.69	1.8425	2.04	2.275

6.1.3. Components with Interventions

The details of interventions recommended along with the costs involved for groundnut (irrigated) are furnished in Table 29.

Table 29. Details of recommended Interventions of Groundnut Crop with Costs

Component	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Seed												
Seed production subsidy @Rs.10/kg	0.1	Tonnes	630	63.0	2100	210	2100	210.0	2100	210.0	6930	693.0
Seed distribution subsidy @Rs.12/kg	0.12	Tonnes	630	75.6	2100	252	2100	252.0	2100	252.0	6930	831.6
Pipeline distribution @ Rs. 15000/ha	0.15	Ha	70	10.5	80	12	100	15.0	120	18.0	370	55.5
Bio fertilizer distribution subsidy @Rs. 3/ No	3.0	L.No	0.70	2.1	2.20	6.6	2.20	6.6	2.20	6.6	7.3	21.9
Distribution of gypsum @50 % subsidy+ transport free @ Rs.750/ha	0.0075	Ha	6500	48.75	13000	97.5	13000	97.5	13000	97.5	45500	341.25
Distribution of micro nutrient mixture @ Rs. 500/ha	0.005	Ha	2600	13	2600	13.0	2600	13.0	2600	13.0	10400	52.0
Farmers Field School subsidy @ Rs. 500/ha	0.2268	Nos	6.0	1.361	17	3.8556	17	3.8556	17	3.8556	57	12.93
Tarpaulin distribution 50% cost limited to Rs 5000/No	0.05	L.No	35	1.75	35	1.75	70	3.50	70	3.50	210	10.5
Distribution of minikit @ Rs.500/ minikit	0.005	Nos	325	1.625	340	1.7	350	1.75	360	1.8	1375	6.875
Precision farming drip fertigation 10 ha cluster 90% subsidy @ Rs. 8 lakhs / No	8.0	Nos	2	16.0	10	80.0	10	80.0	10	80.0	32	256.0

Table 29. Contd…..

Component	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Purchase of breeder seed subsidy Rs.50 / kg	0.5	Tonnes	13	6.5	26	13.0	26	13.0	26	13.0	91	45.5
Construction of rural go downs and marketing centre to stock and distribute seeds and other inputs 10 lakhs / No	10	Nos	18	180.0	36	360.0	0	0	0	0	54	540.0
Seed village seed distribution subsidy @ Rs.50 % cost or Rs.20/ kg	0.2	Tonnes	1750	350.0	1750	350.0	1750	350.0	1750	350.0	7000	1400.0
Distribution of Rodenticides @ Rs.50 / Ha	0.0005	Ha	630	0.315	650	0.325	670	0.335	680	0.34	2000	1.0
Infrastructure development for SSF												
Formation of new bore well with electric motors and EB connection – for SSF, Attiyandal and Vallavatchanur each one and coconut nursery Rs. 1.5 lakhs /Nos	1.5	Nos	0	0	3	4.5	0	0	0	0	3	4.5
Laying of pipelines form water source to field for SSF, Attiyandal and Vallavatchanur each one and coconut nursery in meters	0.004	Tonnes	0	0	1400	5.6	0	0	0	0	1400	5.6

Table 29. Contd…..

Component	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Sprinkler irrigation for SSF, Attiyandal and Vallavatchanur	0.15	Ha	0	0	4	0.6	0	0	0	0	4	0.6
Farm machinery to Attiyandal and Vallavatchanur 1. power tiller each -1	1.5	Nos	0	0	2	3.0	0	0	0	0	2	3.0
Farm machinery to Attiyandal and Vallavatchanur 1. Tractor-each -1	4	Nos	0	0	2	8.0	0	0	0	0	2	8.0
Farm machinery to SSF Attiyandal and allavatchanur to 1.electric motor-Vllavatchanur-2 and Attiyandal-1	0.2	Nos	0	0	3	0.6	0	0	0	0	3	0.6
Farm machinery to SSF Attiyandal and Vavatchanur to 1.Power sprayer each one	0.06	Nos	0	0	2	0.12	0	0	0	0	2	0.12
						Total	**4290.8**					

6.1.4 Groundnut - Rainfed

The details of expected area, production and productivity of groundnut (rainfed) over years along with its normal area, production and productivity of the said crop are furnished in Table 30. It is evident from the table that the production of groundnut would increase from 0.75 lakh tonnes in 2007-08 to 1.44 lakh tonnes in 2011-12. On the contrary, the productivity would expect to raise marginally over years.

Table 30. Details of Area under Groundnut (Rainfed) and Expected Yield

Groundnut	Normal	2007-08	2008-09	2009-10	2010-11	2011-12
Area in lakh ha	0.55	0.62	0.65	0.68	0.70	0.72
Productivity (Kgs)	1150	2100	1650	1800	1900	2000
Production (L.T)	0.6325	0.756	1.0725	1.224	1.33	1.44

6.1.5. Components with Interventions

The details of interventions along with the cost involved are furnished in Table 31.

Table 31. Details of Recommended Intervention with Cost

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Seed production subsidy @Rs.10/kg	0.1	Tonnes	640	64.0	1920	192.0	2040	204.0	2160.	216.0	6760	676.0
Seed distribution subsidy @Rs.12/kg	0.12	Tonnes	640	76.80	1920	230.0	2040	244.8	2160	259.2	6760	810.80
Distribution of gypsum @50 % subsidy limited to Rs.750/ha	0.0075	Ha	3200	24.0	3400	25.50	3600	27.0	3750	28.13	13950	104.63
Distribution of micro nutrient mixture @50 % subsidy limited to Rs. 500/ha	0.005	Ha	3200	16.0	3400	17.0	3600	18.0	3750	18.75	13950	69.75
Total			**7680**	**180.8**	**10640**	**464.5**	**11280**	**493.8**	**11820**	**522.08**	**41420**	**1661.18**

6.1.6 Gingelly - Irrigated

The details of normal area, production and productivity of gingelly (irrigated) along with expected area, production and productivity over years are furnished in Table 32. It could be seen that the productivity would increase from 800 kg/ ha in 2007-08 to 1400kg/ ha in 2011-12.

Table 32. Details of area under gingelly and expected yield

Gingelly	Normal	2007-08	2008-09	2009-10	2010-11	2011-12
Area in lakh ha	0.28	0.03	0.04	0.05	0.06	0.07
Productivity (Kg/ ha)	750	800	900	1000	1200	1400
Production (L.T)	0.021	0.0521	0.0316	0.05	0.072	0.096

6.1.7 Components with Interventions

The components of intervention along with the costs involved are furnished in Table 33. The total cost involved would be Rs. 7.36 lakhs over a period of four years.

Table 33. Details of Interventions with Costs

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Seed procurement subsidy @Rs.10,000/tonnes	0.1	Tonnes	7.00	0.70	7.00	0.70	7.00	0.70	7.00	0.70	28	2.8
Seed distribution subsidy @Rs.12,000/tonnes	0.12	Tonnes	7.00	0.84	7.00	0.84	7.00	0.84	7.00	0.84	28	3.36
Distribution of MnSo4 gypsum @50 % subsidy limited to Rs.100/ha	0.001	ha	300	0.30	300	0.30	300	0.30	300	0.30	1200	1.2
		Total	**17**	**1.84**	**17**	**1.84**	**17**	**1.84**	**17**	**1.84**	**1256**	**7.36**

6.1.8 Sunflower - Irrigated

The details of area, production and productivity of sunflower (irrigated) along with expected area, production and productivity over years are furnished in Table 34. It could be seen that there would be more than two fold increase in the productivity of sunflower in 2012 as compared to the normal yield of sunflower. Similarly it is estimated that the production would increase from 0.051 lakh ton to 0.09 lakh ton during the period under consideration.

Table 34. Details of Area under Sunflower and Expected Yield

Sunflower	**Normal**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**
Area in lakh ha	0.006	0.007	0.006	0.01	0.015	0.02
Productivity (Kg/ ha)	2000	2500	3000	3500	4000	4500
Production (L.T)	0.012	0.051	0.024	0.035	0.06	0.09

6.1.9 Components with Interventions

The details of interventions and the costs involved for sunflower are furnished in Table 35**.**

Table 35. Details of Interventions with Costs

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Hybrid Seed distribution @ 50 % subsidy @Rs.150/kg	0.15	Tonnes	2.00	0.30	2.00	0.30	2.00	0.30	2.00	0.30	8	1.2
Crop production technology demonstration @50% cost Rs. 5000/ha	0.05	Ha	20.0	1.0	20.0	1.0	20.0	1.0	20.0	1.0	80	4.0
Hybrid seed minikit distribution at free of cost 1kg/kit Rs.400/kit	0.004	No	40.0	0.16	40.0	0.16	40.0	0.16	40.0	0.16	160	0.64
		Total	**62.0**	**1.46**	**62.0**	**1.46**	**6+2.0**	**1.46**	**62.0**	**1.46**	**248**	**5.84**

6.1.10. Millets - Rainfed and Irrigated

The details of expected area and yield of millets are furnished in Table 36. It is estimated that the productivity and production of millets would increase to 2500kg/ha and 1.01 lakh tonnes respectively in 2011-12.

Table 36. Details of Area under Millets and Expected Yield

Millets	Normal	2007-08	2008-09	2009-10	2010-11	2011-12
Area in lakh ha	0.223	0.285	0.31	0.345	0.375	0.405
Productivity (Kg/ha)	1100	1600	2000	2200	2300	2500
Production (L.T)	0.2453	0.2483	0.616	0.759	0.8625	1.0125

6.1.11. Components with Interventions

The details of interventions along with the costs involved for millets (irrigated and rainfed) are furnished in Table 37. It is estimated that a sum of Rs. 27.3 lakhs would be required to meet out the intervention over a period of four years.

Table 37. Details of Intervention with Costs

Components	Subsidy/ unit (in L. Rs)	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Units	Cost (L.Rs)
Hybrid Seed distribution @ 50 % subsidy @Rs.8/kg	0.08	Tonnes	12.5	1.00	70.0	5.60	70.0	5.60	70.0	5.60	222.5	17.8
Crop production technology demonstration including minor millets subsidy @Rs. 2000/ha	0.02	Ha	10.0	0.20	50. 0	1.00	50.0	1.00	50.0	1.00	160	3.2
Distribution of bio fertilizer 50% subsidy Rs. 3/ No	3	L.N	0.30	0.90	0.60	1.80	0.60	1.80	0.60	1.80	2.1	6.3
Total				2.1		8.4		8.4		8.4	384.6	27.3

6.1.11. Maize – Irrigated

The details of expected area and yieldof maize (irrigated) over years are furnished in Table 38. It is evident that the area under maize would increase from three thousand hectares to ten thousand hectares. Likewise the production would increase from 0.30 lakh ton to 0.75 lakh ton during the period under consideration.

Table 38. Details of Area under Maize and Expected Yield

Maize	Normal	2007-08	2008-09	2009-10	2010-11	2011-12
Area in lakh ha	0	0.03	0.05	0.070	0.090	0.1
Productivity (Kg/ha)	0	6000	6500	6750	7000	7500
Production (L.T)	0	0.3	0.325	0.4725	0.63	0.75

6.1.12. Components with Interventions

The details of interventions along with the costs involved for maize (irrigated) are furnished in Table 39. It is estimated that a sum of Rs. 15.00 lakhs would be required to distribute hybrid seeds of maize @ 50 per cent subsidy.

6.1.13. Extension Activities

The details of extension activities proposed along with the costs are furnished in Table 40. It could be seen that a sum of Rs. 141.30 lakhs would be required to carry out the extension activities over a period of four years**.**

Table 39. Details of Intervention with Costs

Components	Subsidy/ unit	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of unit	Total cost (L.Rs)	Units	Cost (L.Rs)
Hybrid Seed distribution @ 50 % subsidy limited to Rs.75/kg	0.75	Tonnes	5.0	3.75	5.00	3.75	5.00	3.75	5.00	5.375	**20**	**15.0**

Table 40. Details of Extension Activities Proposed with Costs

Components	Subsidy/ unit	Unit	2008-09		2009-10		2010-11		2011-12		Total	
			No of unit	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	No of units	Total cost (L.Rs)	Unit	Cost (L.Rs)
Strengthening of district information centre providing lab top, printer, LCD, Scanner. Digital camera, copier	2.5	No	1	2.5	0.00	0.00	0.0	0.00	0.00	0.00	1	2.5
Formation of FIG @ Rs, 12500/ Group for training and office automation ID CARD	0.125	No	50	6.25	250	31.25	250	31.25	0.00	0.00	550	68.75
Establishment of Agric clinic and Agri business by unemployed Agri graduates 25% subsidy @2.5 lakhs	2.5	No	2.0	5.0	5.0	12.50	6.00	15.0	15.0	37.50	28	70
Total	**5.125**		**7.0**	**13.75**	**255**	**43.75**	**256**	**46.25**	**15**	**37.5**	**579**	**141.25**

6.1.14 Expected Out Come of the Project

- Farm family security through holistic approaches
- Soil Health Security through Soil Health care and Organic Farming
- Input security and social security through wasteland distribution
- Quality assurance
- Crop security through insurance
- Production security at village level by Agri Clinics and
- Gender Security through women empowerment

6.1.15. Expansion of Area (Ha.)

The details of expansion of area and productivity of selected crops after the funding from NADP are furnished in Table 41. It is evident from the table that funding from NADP would increase the area and productivity to a greater extent**.**

Table 41. Details of Expansion of Area and Productivity of selected Crops (Area in hectares) and (Productivity kg/ha)

S.No.	Crop	Base year (2007-08)	Projected year (2012)
I.	**Area**		
1	Paddy	125000	146000
2	Maize	3000	10000
3	Groundnut	125000	142000
II.	**Productivity**		
1	Rice	3700	6800
2	Maize	6000	7500
3	Groundnut	2000	2750

6.1.16. Budget Required

The budget requirement of agriculture sector of Thiruvannamalai district is furnished in Table 42. In all a sum of Rs. 93.06 crores is required for a period of four years from 2008-09.

Table 42. Details of Overall Budget of Agricultural Sector

(Rs in lakhs)

Component	2008-09	2009-2010	2010-2011	2011-2012	Total
Paddy	505.50	844.34	868.40	899.20	3117.44
Groundnut (Irrigated)	770.50	1424.20	1046.50	1049.60	4290.80
Groundnut (Rainfed)	180.80	464.50	493.80	522.08	1661.18
Gingelly (Irrigated)	1.84	1.84	1.84	1.84	7.36
Sunflower (Irrigated)	1.46	1.46	1.46	1.46	5.84
Millets (Irrigated)	2.10	8.40	8.40	8.40	27.30
Maize (Irrigated)	3.75	3.75	3.75	5.38	16.63
Pulses (DAP 2 % spray for 4000 hectare @ Rs. 200/ha	8.00	0.00	0.00	0.00	8.00
Extension activities	13.75	43.75	46.25	37.50	141.25
Total	**1487.70**	**2792.24**	**2470.40**	**2525.46**	**9275.80**

6.1.17 Seed Testing Laboratory

i) Introduction

"The Agriculture of any country will be as strong as its seed programme. If the seed programs are weak the agriculture is weak and if the agriculture is weak the nation is weak" (Rao, 1989).

National Agricultural Development Programme (NADP) aims in bringing about quantifiable changes in production and productivity of various components of Agriculture and allied sectors in a holistic manner. The purchase of equipments for New Seed Testing Laboratories is not covered under the components under NADP (a to p) and hence the purchase of Equipments for the Thiruvannamalai Seed Testing Laboratory is proposed under component (q) innovative schemes.

Seed the living embryo is considered as the basic and cheapest input in modern agriculture in enhancing and stabilizing the productivity. The cost of seed usually is usually negligible as compared to total production cost. Yet seed can affect the yield potential of a crop more than any other input factor. The quality seed is one with high physical purity, germinability, vigour, genetic purity and free of pest and diseases.

Quality control programs are pointless unless they involve seed testing. Conversely, a seed testing laboratory has little value unless it is a part of a seed certification program, a seed law enforcement program or a production and marketing activity.

Seed tests can provide information on pure seed, other crop seed and weed seed (by percentage and number per unit weight of different species), inert matter, normal and abnormal seedlings, fresh or hard seed, dead seed and moisture content.

The main aim of seed testing is to obtain accurate and reproducible results. The seed testing laboratory is an institution in carrying out the seed production and certification program.

To meet the increasing demand of farming community, seed growers, seed producers, seed dealers of the district and for easy accessibility to the poor farming community for the purpose of enhancing Agricultural production in the district, it is necessary to have a new Seed Testing Laboratory at Thiruvannamalai district.

ii) Objectives of Seed Testing

The main objective of Seed Testing in these laboratories will be to obtain accurate and reproducible results regarding the purity composition, moisture content, the occurrence of weed seeds and the percentage of germination to produce normal seedlings under favorable conditions. In some instances such additional information such as the presence of seed borne diseases and pests and varietal purity is desired. Seed testing will be a guide to the for seed quality control purposes. In all these cases, the ultimate purpose of making the test is to determine the value of seed for planting.

iii) Role of Seed Testing Laboratories in Seed Quality Control

On analysis of the past data on productivity and quantity of seeds distributed to farming community, it is well understood that the SEED is very important among all other factors which influences agricultural production considerably.

While encouraging distribution of Quality seeds, regulation of seeds distributed to farmers is also very much required to safe guard the interests of the farmers and to keep up the agricultural production.

iv) Seed Quality Control Activities

Past performance depicts that intensification of regulatory activities have led to reduction in distribution of sub standard seeds in the state. Tamil Nadu stands first among other states and Union territories in implementation of the Seeds Act, 1966, The Seeds Rule 1968 and the Seed Control Order 1983.

To safe guard the interests of farming community and to increase agricultural production in the district, a strong seed production program and quality control mechanism plays a vital role.

Seed testing plays a pivotal role in modern agriculture. It is being carried out to analyze the factors like germination, physical purity, moisture, seed health and admixture of other distinguishable varieties. Seed testing is carried out in the notified seed testing laboratories. The seed testing results are very important for the successful implementation of seed certification program and seed law enforcement programs.

v) Need for Establishing Seed Testing Laboratory

At present the certified seed samples from Seed Certification wing, Official seed samples from Seed Quality Control wing and Service samples from Seed Producers, Seed dealers and farmers are being sent to Kancheepuram district for analysis. This process results in the delay of results due to transportation of the seed from the place of sampling

to the laboratory. To overcome this problem and render timely supply of quality seeds to the farming community, seed producers and seed dealers it is necessary to establish Seed Testing Laboratory at Thiruvannamalai district.

As seeds play a vital role in enhancing the agricultural production, it is a must to check the quality of seeds before being used for sowing. The Seed testing Laboratory is the hub of Quality Control. Seed testing services are required from time to time to gain information regarding planting value of seed lots. To carry out the responsibilities effectively, it is necessary that Seed Testing Laboratory is established, manned and equipped in a manner such that whatever samples are received from the district could be analyzed in the least possible time, so that seed quality control work and the need of the seed industry are effectively met.

vi) Seed Distribution

A considerable quantum of quality seeds are being distributed through licensed seed selling points. The labeled seeds distribution is dominating. Under these circumstances, ensuring the quality of the seed lots before its usage by the farming community is very much essential. The quality of such seed lots can be ensured only by testing these seed lots in the Seed Testing Laboratories for its seed standards. The seed testing of these seed lots which are not covered under the preview of Seed Certification and that are covered to some extent under seed quality control program can be ensured only by inculcating the practice of sending service samples by seed producers, seed dealers and farmers. In the present scenario, where Seed Testing Laboratory is not available in the district, the seed producers, seed dealers and farmers find it very difficult to send the seed samples for analysis. Hence, facilitating the seed producers, seed dealers and farmers by establishing Seed Testing Laboratory in the district will be of much use. Accordingly, a Seed Testing Laboratory is proposed to be established in Thiruvannamalai district.

In order to meet the increasing demand of quality seeds and to ensure that the farmers, dealers, producers receive the results of Seed Testing Laboratories at correct time without delay it is proposed to establish new Seed Testing Laboratory at Thiruvannamalai district under National Agricultural Development Programme with a financial outlay of Rs.6.00 lakhs towards provision of laboratory equipments.

vii) Activities Proposed

To establish a Seed Testing Laboratory to test moisture, purity, germination and ODV of the given seed sample the following equipments are necessary.

a. Mixing and Dividing Equipments

Seed samples entering a laboratory should be thoroughly mixed before they are divided for making a purity analysis. Soil type divider is proposed to be purchased as these mixers and dividers are faster and more accurate.

b. Moisture Testing Equipment

Moisture testing equipment for making rapid moisture determinations to provide quick moisture percentage on seed lots. Digital moisture meter is to be purchased.

c. Weighing Equipments

It is proposed to purchase Top loading weighing balance and Electronic Weighing balance (to weigh a minimum of 0.1 mg) for weighing the submitted samples and moisture determinations.

d. Purity Analysis Equipment

Purity analysis equipments are used to analyze the physical purity of submitted seed sample which is pre requisite for conducting germination test. The illuminated purity work board is to be purchased for physical purity analysis.

e. Germination Equipment

Seed Germination in the laboratory should be made under ideal conditions. This necessitates controlled temperature and humidity. For conducting germination test under prescribed temperature and humidity for various agricultural and horticultural crop seed samples Cabinet germinator is very much required. Germination Trays and Petri dishes are necessary for conducting Germination Test. Germination paper and filter paper are the media that are to be purchased for the new Seed Testing Laboratory.

f. Storage Equipment

The Seeds received for testing should be stored at controlled conditions for future use. Hence it is proposed to purchase seed storage racks.

g. General

Thermometer and Hygrometer to measure temperature and humidity respectively are needed. Trolley (Movable) for transporting sand and Air Conditioner to maintain prescribed temperature is required. Work table and work table and chair are necessary for carrying out various works like germination, purity analysis and for operating the equipments etc.

h. Computers with Accessories

Computer with accessories are needed for declaring the results in the internet and storing the data of seed analysis.

i. Cost Aspects

The Seed Testing Laboratory that is to be established should have the following equipments for the purpose of analyzing seed samples for moisture, physical purity, germination and Other Distinguishable Varieties. The details of the equipments and cost involved are furnished in Table 43.

Table 43. Details of the Equipments and Total Cost

Sl. No.	Name of the Instrument/Equipment	Approx. Qty required for One lab	Approx .cost Per unit (Rs.)	Aprox. cost for One lab. (Rs.)
1	Weighing Balance-Top Loading	1	5000	5000
2	Illuminated purity Work board	1	4000	4000
3	Electronic Weighing balance (0.1 mg)	1	30000	30000
4	Soil type divider	1	7500	7500
5	Digital moisture meter with stabiliser	1	17500	17500
6	Germination trays	200	175	35000
7	Petri dishes	50	300	15000
8	Thermometer	1	300	300
9	Hygrometer	1	1500	1500
10	Cabinet Germinator (Double door) along with stabliser	1	225000	225000
11	Air Conditioner (split type) along with stabilizer	2	35000	70000
12	Work Table	5	4000	20000
13	Work Chair	4	2500	10000
14	Trolley(Movable)	1	5000	5000
15	Computer with accessories	1	60000	60000
16	Germination Paper (Roll towel) in Kgs	200	165	33000
17	Filter paper (Nos)	50	35	1750
18	Seed Storage Rack	2	6000	12000
19	Telephone Connection with Broad band	1	1250	1250
20	Miscellaneous items			46200
	Total			**600000**

Note: The above list of equipments is tentative. Based on the actual price of the equipments, the quantity and cost indicated for each of the above mentioned items may be altered and some of the equipments may be deleted so as to accommodate the purchase of equipments within the overall provision.

j. Operation and Maintenance Cost of the Running Laboratory

The staff pattern as proposed in the restructuring shall be accommodated. The recurring expenditure towards pay and allowances for the staffs proposed as per restructure proposal and the recurring expenditure towards other items shall be borne by the State Government.

k. Benefits

The Seed Testing laboratory is an important institution in carrying out the seed production and seed certification program. The accuracy and reproducibility in the analyzed results is of paramount importance to the seed producer, processor, certification and seed law enforcement officials. Establishment of seed testing laboratory at Thiruvannamalai district will help the farming community, seed dealers and producers in getting the results in time, in getting quality seeds at the sowing period and curtailing the sale of substandard seeds to the farmers well ahead of sowing so that agricultural production of the district is enhanced.

l. Expected Date of Completion

The equipments for Seed Testing Laboratory are expected to be purchased during 2008-09.

m. Monitoring and Evaluation

Project on implementation of the proposed project shall be evaluated then and there by Department of Seed Certification which is the implementing department.

6.2 Horticulture Sector

Introduction

Keeping in view of the agriculture scenario of Tiruvannamalai district and the guidelines of National Agriculture Development programme / Rashtriya Krishi Vikas Yojana, prepared by Govt. of India, District Agriculture Plan of Tiruvannamalai district for 2008-09 period has been prepared. The proposed plan aims at accelerated growth in

agriculture and allied sectors by increasing the investments in the identified sectors. The plan focuses the vision for the developments of Agriculture and Allied sectors within the overall development perspective of the district.The plan presents the financial requirement for the agriculture development of the district in a comprehensive way.

The plan includes Agriculture, Horticulture, Agricultural Engineering, Animal Husbandry, Fishery, Minor Irrigation, Rural Development, Agricultural Marketing and Water Harvesting conservation sectors.

6.2.1. Nursery and Vegetable Production

i) Problem Focus

Basically Thiruvannamalai District is an Agriculture based District and most of the population depends on Agriculture for their survival. Most of the farmers are small and marginal and very much interested in vegetables cultivation. So far they are cultivating traditional and high yielding vegetables in an area of 3,300 ha in this District. To increase the yield potential and thereby to increase their income, introduction of Hybrid vegetables seedling production technique must be essential. For that we are introducing shade net and Pro-tray seedling cultivation are recommended.

ii) Project Rationale

Introduction of Hybrid seedling production under shade net and Protray method.

iii) Project Strategy

To involve the farmers for seedling production and sales among the neighboring farmers.

iv) Project Goal

By introduction of this scheme, the farmers standard of living will be increased.

v) Project Components

Hybrid Seeds, Protrays, medium for Protrays shade nets and other components are required at 50 per cent subsidy rate.

vi) Reporting

Periodical progress report about the scheme will be sent to the higher officials

6.2.2. Pandal for Vegetable Production

i) Problem Focus

Around 250 Ha of Gourds is being cultivated in this District. They are following the traditional method of allowing the creepers on the ground and as well as staking the tree branches with pit for growing the plants. Erection of pandals and related structures involves high cost to the farmers. Hence they are hesitating to adopt this technique. To provide support in this ground it is proposed to introduce this item in this district.

ii) Project Rationale

To encourage more farmers under gourds cultivation.

iii) Project Strategy

To minimize the cost of cultivation under pandal cultivation.

iv) Project Goal

For easy cultural operation, harvesting etc.

v) Project Component

Hybrid seeds, Pandal infrastructure like stone pillars, nylon netting etc.

vi) Reporting

Periodical reports and the progress of the work will be reported to the higher authorities.

6.2.3. Package for Plant Protection

i) Problem Focus

Total horticultural cropped area in this district is 8,500 ha and above, covering various crops like Fruits, Vegetables, Spices, Flowers and Aromatic Plants. Hence introduction of package of plant protection measures will be very economical.

ii) Project Rationale

Introduction of Plant Protection measures through Department personnels will help the farmers in right way.

iii) Project Strategy

Involve all farmers to take proper plant protection measures.

iv) Project Goal

To enhance the production per unit area.

v) Project Components

Organic manure (Neem cake, Caster cake etc.) Bio fertilizers, Bio pesticides, Bio fungicides and Bio-hematicids at 50% subsidized cost.

vi) Reporting

Periodical report will be sent to the higher officials.

6.2.4. Plastic Crates for Vegetable Handling and Transport

i) Problem Focus

Post harvest handling of horticultural crops is very much essential. Mostly farmers are using uneconomical and traditional methods for post harvest handling. Due to this, the wastage is accounted for Rs. 300/ ha. By introduction of crates among the farmers, they can handle the produce economically.

ii) Project Rationale

To minimize the loss and increase the profit to the farmers.

iii) Project Strategy

To bring the farmers more in number to use the creates in their day to day agricultural activities.

iv) Project Goal

To enhance the quality and minimize the loss.

v) Reporting

Progress report will be submitted then and there.

6.2.5. Farm Waste Shredder/ Vegetable Waste Shredder

i) Problem Focus

Most of the farm and vegetable wastes were not properly utilized by the farmer. So introduction of shredder will help proper utilization in their crop cultivation.

ii) Project Rationale

To use the farm wastage properly.

iii) Project Strategy

To avoid the wastage.

iv) Project Goal

To improve the soil fertility and soil conditions.

v) Project Components

Vegetable waste shredder.

vi) Reporting

Periodical progress reports will be sent to authorities.

6. 2.6. Cashew High Density Planting

i) Problem Focus

Some of the blocks in Thiruvannamalai District *viz.*, Chengam, Thandarampattu and Vembakkam are more ideal for growing cashew plantation. The soil and climate condition is suitable for cashew plantation.

ii) Project Rationale

This crop is newly introduced among the individual farmers holding.

iii) Project Strategy

To popularize cashew plantation in this district.

iv) Project Goal

To bring cultivation of uncultivated and fallow lands

v) Project Components

Providing graded planting materials, pitting and planting charts, staking organic manures, biofertilizers and plant protection measures.

6.2.7. Borewell with Casing Pipe

i) Problem Focus

The major source of irrigation of this District is through wells. Nearly 80,000 and more open wells are here. Most of the wells are 50 feet in depth. Only in rainy seasons, the wells get recharged. To improve the water source during the summer months, the bore well along with casing will be more helpful to the farmers.

ii) Project Rationale

To improve water source during summer period.

iii) Project Strategy

To help the small and marginal farmers in larger numbers**.**

iv) Project Goal

To increase the horticultural crop area in summer season**.**

v) Project Components

Bore well with casing pipes**.**

vi) Reporting

Periodical report will be submitted.

6.2.8. Banana Bunch Cover

i) Problems Focus

In an area of 1500 ha banana is being cultivated in this district. To set uniform size and quality of fruit, bunch cover is needed.

ii) Project Rationale

To obtain quality and improved bunch size.

iii) Project Strategy

To improve the marketability of the bunches.

iv) Project Goal

To fetch the farmers a higher price.

v) Project Component

Bunch cover @ 75% subsidy.

vi) Reporting

Periodical report will be submitted regularly.

6.2.9. Humic Acid / Effective E Microbes

i) Problems Focus

Most of the farmers are not applying organic manure, resulting in reduction of microbes level in the soil. So to balance the soil health, this scheme is very essential.

ii) Project Rationale

To maintain eco-friendly environment.

iii) Project Strategy

To increase the soil texture.

iv) Project Goal

To minimize the Chemical fertilizer application.

v) Project Components

Humic Acid

vi) Reporting

Periodical Report will be sent to authorities

6.2.10. Tractor Mounted Steam Boiler

i) Problem Focus

Turmeric is cultivated in an area of 350 hectares in this district. Growers are adopting low cost technology for boiling turmeric, thereby reducing the quality of the produce. Hence tractor mounted steam boiler could be introduced.

ii) Project Rationale

To improve the quality of turmeric produce.

iii) Project Strategy

To fetch high marketability.

iv) Project Goal

To get higher rate.

v) Project Component

Tractor mounted steam boiler.

vi) Reporting

Periodical reports will be sent to the higher officials.

6.2.11. Support System for Banana

i) Problem Focus

Banana is cultivated in an area of 1500 Ha in this district. Most of the farmers are using suckers as planting materials. Now the tissue culture banana is popular among the farmers. The cost is higher than the traditional method of planting. Banana Crops are highly susceptible to wind damages. The cost of cultivation is also higher than other horticultural crops. To substantiate the production cost and to minimize the crop loss during the cropping period providing supporting material is very essential.

ii) Project Rationale

To minimize the crop loss during heavy wind and rainy period.

iii) Project Strategy

To minimize the cultivation cost.

iv) Project Goal

Crop loss is prevented and the farmer’s income is assured.

v) Project Components

Supporting material.

vi) Reporting

Periodical report. will be sent to authorities.

6.2.12. Banana Corm Injector

i) Problem Focus

The area under Banana crop has reduced to 1500 ha from 3000 ha due to various pest and diseases noticed in banana crop. To tide over the pest and diseases in a proper and economical way, the introduction of this injector will be more helpful.

ii) Project Rationale

To encourage effective prophylactive measures.

iii) Project Strategy

To reduce the pest and diseases damage.

iv) Project Goal

Economic use of pesticides and fungicides, minimization of the labour cost and more effective by injecting the chemicals into the root zone.

v) Project Component

Banana corm injector.

vi) Reporting

Proper reporting will be made at periodical intervals.

6.2.13. Mango Harvester

i) Problem Focus

Most of the mango growers are adopting old technique to harvest mango fruits. Due to this practice, many of the fruits are bruised at the time of harvest resulting in rotting of fruits at the time of marketing and storing. Due to this heavy loss is experienced by the growers as well as the marketers. To avoid this, mango harvester will be very much helpful and economical as well.

ii) Project Rationale

To get more number of quality fruits.

iii) Project Strategy

To improve the quality of the fruit and minimize the post-harvest handling loss.

iv) Project Goal

To increase the income of the farmer and easy marketability

v) Project Component

Mango Harvester.

vi) Reporting

Periodical reporting of the work will be done.

6.2.14. Sales Outlet Points in District (Rent and Infrastructure)

i) Problem Focus

More number of small and marginal farmers are growing various flower crops like Tuberose,Jasmine, Crossandra, Marigold, Kakkattan, Mullai and Rose in an area of more than 1000 Ha. Those farmers are selling the flowers to the local traders and getting lesser price from the traders. By providing sales outlet and vehicles for collection of flowers among the growers, the social and economic level of the farmers wil be enhanced.

ii) Project Rationale

To avoid middlemen in marketing.

iii) Project Strategy

Direct marketing of farm producers.

iv) Project Goal

To increase the income and prevent middlemen role in marketing.

v) Project Components

Sales outlet.

vi) Reporting

Periodical reporting will be done.

6.2.15. District Level Farmers Workshop

i) Problem Focus

Being the agriculture based district, many of the farmers are small and marginal besides illiterate. Many of them are also working as agricultural labourers. To create awareness of the Government Schemes and latest technologies, District level farmers workshop is an essential one.

ii) Project Rationale

To educate the farmers the latest technologies.

iii) Project Strategy

Creating of awareness of up to date technical knowledge.

iv) Project Goal

To improve the standard of living of farming community.

v) Reporting

Reporting of the scheme projects will be done periodically.

6.2.16. Inner State Exposure Visit (5 Days)

i) Problem Focus

Most of the farmers are small, marginal and illiterate, and they are not coming forward to adopt the latest technologies in cultivation. So they are getting lesser prices and live below poverty line. An exposure visit to various places, will give them a chance to see and learn up to date technologies and transverse opinion among the farmers.

ii) Project Rationale

Learning by seeing.

iii) Project Strategy

To make an awareness on latest technologies and cultivation aspects.

iv) Project Goal

To improve the farmer's technical skill thereby improving their income.

v) Reporting

Routine reporting of the scheme progress will be done.

6.2.17. 10 Ha Mega Demo Plot for the District

i) Problem Focus

Majority of the farmers are small and marginal farmers and they keep their lands fallow for various reasons. To help those farmers, the introduction of this scheme is very essential.

ii) Project Rationale

To help the poor farmers, especially the marginal and small farmers.

iii) Project Strategy

To convert unproductive land into productive land.

iv) Project Goal

To increase the living standard of the farm families.

v) Reporting

Periodical reporting will be made to the authorities.

6.2.18. Distillation Unit

i) Problem Focus

Nearly 300 hectares are under aromatic plants like Lemon grass, Citronella and Palmrosa. Only limited number of extraction units are available. These units are not capable of extracting all at a time. So introduction of small units as a cottage industries will help them to considerable extent.

ii) Project Rationale

To help the aromatic plant growers.

iii) Project Strategy

To provide opportunity to rural youths an employment opportunity.

iv) Project Goal

Small and marginal farmers will extract oils by themselves and market the same to the traders directly.

v) Project Components

Distillation Units.

vi) Reporting

Periodical reports of the progress of the project will be sent to the authorities.

The details of recommended intervensions along with the budget are furnished in Table 44. The abstract of budget for the period from 2008 – 09 to 2011 – 12 are furnished in Table 45.

Table 44. Details of Recommended Interventions with Budget Cost

(Rupees in lakhs)

Intervention	2008-2009			2009-2010			2010-2011			2011-2012		
	No. of Units	Unit cost	Total Cost	No. of Units	Unit cost	Total Cost	No. of Units	Unit cost	Total Cost	No. of Units	Unit cost	Total Cost
Nursery and Vegetable Production	1(300 sq.m)	1.000	1.00	1	1.000	1.00	1	1.000	1.000	1	1.000	1.000
Pandal for Vegetable Production	2 Ha	1.000 /ha	2.000	2 Ha	1.000 /ha	2.000	2 Ha	1.000 /ha	2.000	2 Ha	1.000 /ha	2.000
Package for plant Protection	2.50 Ha	3000/Ha	7.500	2.50 Ha	3000/Ha	7.500	2.50 Ha	3000/Ha	7.500	2.50 Ha	3000/Ha	7.500
Plastic Crates for Vegetable handling and transport	200 Crates	250	0.500	200 Crates	250	0.500	200 Crates	250	0.500	200 Crates	250	0.500
Farm waste shredder/Vegetable waste shredder	2	0.400h	0.800	2	0.400	0.800	2	0.400	0.800	2	0.400	0.800
Cashew high density planting	10	9000	0.900	10	9000	0.900	10	9000	0.900	10	9000	0.900
Bore well with casing pipe	5	1.500	7.500	5	1.500h	7.500	5	1.500	7.500	5	1.500	7.500
Banana Bunch Covers	50000	10	0.500	50000	10	0.500	50000	10	0.500	50000	10	0.500
Humic acid/effective e microbes	100 litres	400	0.400	100 litres	400	0.400	100 litres	400	0.400	100 litres	400	0.400
Tractor mounted steam boiler	2	50000	1.00	2	50000	1.00	2	50000	1.00	2	50000	1.000
Support System for crops (Banana)	25 Ha	1.500	37.500	25 Ha	1.500	37.500	25 Ha	1.500	37.500	25 Ha	1.500	37.500

Table 44. Contd… **(Rupees in lakhs)**

Intervention	2008-2009			2009-2010			2010-2011			2011-2012		
	No. of Units	Unit cost	Total Cost	No. of Units	Unit cost	Total Cost	No. of Units	Unit cost	Total Cost	No. of Units	Unit cost	Total Cost
Banana Corn injector	300	300	0.900	300	300	0.900	300	300	0.900	300	300	0.900
Mango Harvester	50	500	0.250	50	500	0.250	50	500	0.250	50	500	0.250
Sales outlet points in districts(Rent and infrastructure)	---	---	---	1	2.600	2.600	1	2.600	2.600	---	---	---
District level farmers mela	1(300 sq.m)	1.0	1.0	1	1.0	1.0	1	1.0	1.0	1	1.0	1.0
Interstate exposure visit	50	5000	2.5	50	5000	2.5	50	5000	2.5	50	5000	2.5
10ha mega demo plot for the district	1	25.0	25.0	1	25.0	25.0	1	25.0	25.0	1	25.0	25.0
Distillation unit for aromatic plants	5	1.250	6.250	5	1.250	6.250	5	1.250	6.250	5	1.250	6.250
Total		**65491.25**	**95.50**		**65492.75**	**98.10**		**65494.25**	**98.10**	**50427**	**65491.65**	**95.50**

Table 45. Details of Horticultural Components with Budget - 2008-2012

(Rs. in lakhs)

S. No.	Components	2008-09	2009-10	2010-11	2011-12	Total cost
1.	Net house Structure • Nursery and • Vegetable Production	1.000	1.000	1.000	1.000	**4.00**
2.	Pandal for Vegetable Production	2.00	2.00	2.00	2.00	**8.00**
3.	Package for plant Protection	7.500	7.500	7.500	7.500	**30.00**
4.	Plastic Crates for Vegetable handling and transport	0.500	0.500	0.500	0.500	**2.00**
5.	Farm waste hredder/Vegetable waste shredder	0.800	0.800	0.800	0.800	**3.20**
6.	Cashew high density planting	0.900	0.900	0.900	0.900	**3.60**
7.	Bore well with casing pipe	7.5	7.5	7.5	7.5	**30.00**
8.	Banana Bunch Covers	0.500	0.500	0.500	0.500	**2.00**
9.	Humic acid/effective e microbes	0.400	0.400	0.400	0.400	**1.60**
10.	Tractor mounted steam boiler	1.00	1.00	1.00	1.00	**4.00**
11.	Support System for crops Banana	37.500	37.500	37.500	37.500	**150.00**
12.	Banana Corn injector	0.900	0.900	0.900	0.900	**3.60**
13.	Mango Harvester	0.250	0.250	0.250	0.250	**1.00**
14.	Sales outlet points in districts (Rent and infrastructure)	0	2.600	2.600	0	**5.20**
15.	District level farmers mela	1.0	1.0	1.0	1.0	**4.00**
16.	Interstate exposure visit	2.5	2.5	2.5	2.5	**10.00**
17.	10ha mega demo plot for the districts	25.0	25.0	25.0	25.0	**100.00**
18.	Distillation unit for aromatic plants	6.250	6.250	6.250	6.250	**25.00**
	Total	**95.50**	**98.10**	**98.10**	**95.50**	**387.20**

6.3 Animal Husbandry Sector

I. Baseline Information of Livestock/ Poultry Sector in the District

Cattle	Sheep	Goat	Pigs	Poultry
437465	198318	150141	7259	252314

(a) Animal Population (2004) (in Nos.)

(b) Average production of Livestock commodities (2004-05 to 2006-07)

Cow milk in 000 Tonnes	Buffalo milk in 000 Tonnes	Improved egg in Lakh Nos.	Desi egg in Lakh Nos.	Poultry Meat in Tonnes	Mutton in Tonnes	Chevo in Tonnes
238.36	20.66	21.26	85.43	676.67	99.96	338.16

(c) Productivity of Livestock in Thiruvannamalai District (per animal / bird)

(Average Annual Compound Growth Rate in per cent) (1998– 99 to 2006– 07)

Desi Egg	Improved Egg	Indigenous cow	Crossbred cow	Buffalo
21.52	21.57	1.99	2.12	0.23

(d) Production Growth Rates (1998–99 to 2006–07)

(Average Annual Compound Growth Rate in per cent)

Cow Milk	Buffalo Milk	Total Milk	Desi Egg	Improved Egg	Total Egg	Total Meat
7.59	-16.00	3.99	-9.33	-13.71	-10.37	2.35

(e) Demand and supply of green fodder in Thiruvannamalai District (2004)

(million tons per year)

Demand	Supply	Deficit	Deficit %
3.4813	0.3909	3.0904	88.8

(f) Demand and supply of Dry fodder in Thiruvannamalai District (2004)

(million tons per year)

Demand	Supply	Surplus	Surplus %
1.559	1.717	0.158	10.1

Number of Breedable Bovine Population (2004) : 187800

Number of AI done (2007) : 350589

Strength / Gaps

(a) Dairy Sector

Strength	Weakness
Regular guaranteed income	Scarcity of green fodder
Easy marketing – competitive price	Rise in market rate of cows
More number of dairies	Problems in disease control

(b) Sheep & Goat

Strength	Weakness
Well adapted breed	Shortage of grazing land
Traditional farming practices	Non-availability of proven stock
Enhanced marketing	Disease control

(c) Poultry Farming

Strength	Weakness
Backyard poultry	High organised farming cost
Potential for exploitation	Fluctuating marketing price
Enhanced technical assistance	High chick and feed cost

ii. On going Government Development Schemes for Livestock & Poultry (Both State and Central)

- Assistance to States to Control Animal Diseases (ASCAD)
- Kalnadai Padhukappu Thittam

iii. Interventions Required Areas

- Green fodder development
- Financial Assistance for Animal component
- Incentive to farmers through cards
- Improved livestock health care
- Hygienic utilization of offal
- Capacity building protocols

Projects

I. Intensive Fodder Production, Supplementation of By-pass Protein Feed and Micronutrients to Dairy Cows and Goats and Enhancement of Nutrient Utilization

Abstract

Fodder deficiency is wide spread and in this drought prone Thiruvannamalai district it is about 88.8 percent. Inspite of deficient fodder, the farmers do not utilize the alternative fodder resources effectively and do not attempt to increase the efficiency of nutrient utilization from available fodder. This project aims to reduce the pressure on green fodder requirement by utilizing the sugarcane tops, develop micro-level fodder units and increase the efficiency of nutrient utilization in the consumed feed and fodder.

The project proposes to commercialize fodder production by involving the SHG, adoption of the technology of SCT ensiling and feeding and increase the efficiency of nutrient utilization by popularizing chaff cutters, supplementing mineral mixture and

supplementing By-pass protein feed to milch animals. The project will be implemented by the Department of Animal Husbandry and the Department of Dairy Development at a total cost of Rs. 444.44 lakh in four years.

i. Budget

Title	Agency	Total amount
Popularizing chaff cutter @1No./Block/yr for SHGs/elite farmers (0.10 Lakhs through NADP & 0.10 Lakhs farmer's share) totally 72 nos	DAH	7.20
Fodder production by SHGs @ 10 acre/Bl/yr , 720 acres	DAH	169.20
Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops at 75 % of total cost of Rs 15,000, 220 units	DAH	22.52
Popularizing mineral mixture to improve livestock production @ 1kg/month at 100 % subsidy, @ Rs.40/kg, Totally 187800 kgs	DAH	75.12
Supply of mineral mixture to the milch animals at subsidised cost (50%) @ 18 kg/ year	DDD	100.00
Supply of by-pass protein feed to the milch animals (360kgs/ year/animal @ 50% subsidised cost of Rs.9/- per kg.)	DDD	26.40
Chaff cutters for elite farmers (small type) @Rs.20,000 as 100% grant	DDD	10.00
Fodder Development Activities (for production of fodder seed/ slips in dairy or chiling centres & land of ddd) 5 acres	DDD	10.50
Fodder Development Activities (100 acres in 100 IDF villages)	DDD	23.50
Total		**444.44**

ii. Problem Focus

Severe green fodder deficiency and under utilization of available other fodder resources together with poor nutrient efficiency results in over dependence on supplemental compounded feed which increase the cost of production.

iii. Project Rationale

Increasing fodder production and its nutrient efficiency will reduce feed cost on production and increase the net income.

iv. Project Strategy

- Involving SHG in fodder production,
- Ensiling and feeding of sugarcane tops,
- Introduction of fodder chaffers
- Supplementation with mineral mixture and By- pass protein to enhance nutrient efficiency.

v. Project Goal

To reduce fodder and nutrient demand and increase net profit to dairy farmers.

vi. Project Components

i. Provision of Chaff Cutters to Self Help Groups

One Chaff cutter will be provided to one Self Help Group in each block. The SHG to be provided with the chaff cutter will be identified by the District Administration. The Chaff cutter that are provided will be operated manually with provision for mechanizing the same if necessary in future. The approximate cost of one chaff cutter works out to Rs.10,000/-.

Popularizing chaff cutters by providing to SHG/Elite farmers at 50% of the total cost of Rs.0.20 lakh each. A total of 72 chaffers will be distributed at the rate of one per block per year to the total cost of Rs.7.20 lakh.

ii. Encouraging fodder production in irrigated condition by SHG at the rate of 10 acre per block per year with 100% subsidy on the total cost of Rs.0.20 lakh per acre. The SHG resorting to fodder production will be given training at the cost of Rs.3500. This component will be implemented in 720 acres at the total cost of Rs.169.20 lakh.

Cost of Fodder Production by the Department of Animal Husbandry and the DDD / Acre

S.No.	Details	Amount (in Rs.)
I.	**Training Cost**	
1.	Incentive @ Rs.100/person/day, for 2 days, for 15 members	3,000.00
2.	Refreshment expenses @ Rs.10/day/person, for 2 days, 15 persons	300.00
3.	Study materials including scribbling pad, pen etc.@ Rs.15/person, for 15 members	225.00
	Total training cost per SHG	**3,525.00**
II.	**Fodder Cultivation of Fodder**	
1 a)	Bush clearance and land reclamation	2,600.00
1.b)	Cost of ploughing	1,600.00
2.	Formation of ridges and furrows/beds and irrigation channels	500.00
3.a)	Cost of fym 10 mt. @ Rs.300/mt.	3,000.00
3.b)	Labour cost for transportation and application, loading and unloading	1,000.00
4.a)	Cost of slips 16,000 numbers @ Rs.0.25 /slip	4,000.00
4.b)	Planting cost	840.00
5.a)	Cost of chemical fertilizers N 150 Kg @ Rs.5.48/kg – 822.00 P 50 Kg @ Rs.10.88/kg – 544.00 K 40 Kg @ Rs.3.85/Kg - 154.00	1,520.00
5. b)	Cost of labour for application	200.00
6.	After cultivation weeding	840.00
7.	Cleaning the channels	500.00
8.	Irrigation charges	800.00
9.	Harvesting charges and transportation	1,600.00
10.	Miscellaneous expenses	800.00
	Total Cost Required Per Acre	**20,000.00**

iii. The sugarcane farmers will be encouraged to ensile the Post- harvested green sugarcane tops to supplement their animals during summer. For digging the 6x6x4 cubic feed silo, 75% subsidy on the total cost of Rs.0.15 lakh will be provided. A total of 200 sugarcane farmers will be involved this project in 4 years at the total cost of **Rs.22.50 lakhs**.

iv. To popularize mineral mixture supplementation 18 kg mineral mixture per year at the rate of 1.5 kg per month will be supplied to a total of 20,000 cows in four years with 50% subsidy. The total cost for this proposal is **Rs.100.00 lakh.**

v. The Department of Animal Husbandry will distribute 187800 kgs of mineral mixture to dairy cattle for four years. The total cost will be **Rs.75.12 lakhs.**

vi. The Department of Dairy Development will distribute bypass protein feed to high yielding milch animals(360kg/animal/year) at 50% subsidized cost of Rs 9/kg. A total of 800 animals will be covered in 4 years at the total cost of **Rs.26.40 lakh**.

vii. The Department of Dairy Department will distribute small sized 50 chaff cutters to elite farmers at 100% subsidy in the unit cost of Rs.0.20 lakh each. The total cost will be **Rs.10.00 lakh**.

viii. The Department of Dairy Department will establish fodder seed/slips production units in dairy or chilling centres & land of DDD @ Rs.2.1 lakh/unit during the year 2008 – 09, the amount totaling to **Rs 10.5 lakhs** (5 units) in the implementation of the project.

Breakup Details for Fodder Seed / Slips per acre

Sl.No	Particulars	Amount (Rs. in Lakhs
I	**Capital Investment**	
1.	Demarcation of boundary and fencing	0.60
2.	Land development	0.10
3.	Farm sheds for equipments, seeds manure etc.,	0.20
4.	Purchase of agricultural implements	0.10
5.	Creation of irrigation facilities (wells, pumps, powerline, water tanks, pump room, pipeline etc.,)	0.50
	Sub –Total (I)	**1.50**
II	**Recurring Expenditure**	
1.	Wages of supervising staff	0.20
2.	Sedds, fertilizers / manure and insecticides	0.20
3.	Cultivation charges	0.05
4.	Irrigation charges	0.05
5.	Maintenance of store / dead stock	0.05
6.	Miscellaneous	0.05
	Sub-Total (II)	**0.60**
	Grand Total (I + II)	**2.10**

vii. Project Cost and Financing

Title	Agency	2008-09	2009-10	2010-11	2011-12	Grand total
Popularizing chaff cutter @ 1/Bl/yr for SHGs/elite farmers at 50 % of total cost of Rs 20,000	DAH	1.80	1.80	1.80	1.80	7.20
Fodder production by SHGs @ 10 acre/Bl/yr	DAH	42.30	42.30	42.30	42.30	169.20
Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops at 75 % of total cost of Rs 15,000	DAH	5.63	5.63	5.63	5.63	22.52
Popularizing mineral mixture to improve livestock production @ 1kg/month for one year in one block	DAH	18.78	18.78	18.78	18.78	75.12
Supply of mineral mixture to the milch animals at subsidised cost (50%) @ 18 kg/ year	DDD	25.00	25.00	25.00	25.00	100.00
Supply of by-pass protein feed to the milch animals (360kgs/ year/animal @ 50% subsidised cost of rs.9/- per kg.)	DDD	6.60	6.60	6.60	6.60	26.40
Chaff cutters for elite farmers (small type) @rs.20,000 as 100% grant	DDD	2.60	2.60	2.60	2.20	10.0

Title	Agency	2008-09	2009-10	2010-11	2011-12	Grand total
Fodder seed/slips production units in dairy or chilling centres & land of DDD	DDD	10.50	-	-	-	10.50
Fodder Development Activities (100 acres in 100 IDF villages in each for 2 years & 1850 acres in farmers field	DDD	5.875	5.875	5.875	5.875	23.50
Total		**119.09**	**108.59**	**108.59**	**108.19**	**444.44**

viii. Implementation Chart

Title	Agency	2008-09	2009-10	2010-11	2011-12
Popularizing chaff cutter for SHGs/elite farmers	DAH	18	18	18	18
Fodder production by SHGs	DAH	180 acres	180 acres	180 acres	180 acres
Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops	DAH	50	50	50	50
Popularizing mineral mixture to improve livestock production	DAH	46950 kgs	46950 kgs	46950 kgs	46950 kgs
Supply of mineral mixture to the milch animals	DDD	5000 cows	5000 cows	5000 cows	5000 cows
Supply of by-pass protein feed to the milch animals	DDD	200 cows	200 cows	200 cows	200 cows
Chaff cutters for elite farmers (small type)	DDD	13	13	13	11
Fodder seed/slips production units in dairy or chilling centres & land of DDD – 5 acres	DDD	5	-	-	-
Fodder Development Activities (100 acres in 100 IDF villages	DDD	25	25	25	25

ix. Reporting

Concerned project implementing agency will report the progress to respective financial authorities (DAH / DDD).

II. Genetic Upgradation of Cattle, Buffaloes, Sheep and Goats, Improvement of Livestock Health and Supply of Goat Units to SHG

Abstract

The population of buffalo is dwindling in this district due to reproductive Problems and long intercalving period as farmers often fail to identify the animals in heat. This causes heavy economic loss. The buffalo calves are also neglected resulting in malnutrition, stunted growth and attainment of late maturity.

This project aims to demonstrate 100% conception rate through programmed breeding in buffaloes and indigenous cows, popularize supplemental feed strategy to buffalo calves to attain early sexual maturity apart from maintaining data base on breedable bovines in this district. The Project proposes to demonstrate heat synchronization in buffaloes, followed by AI, popularize concentrate feed supplementing strategy to buffalo calves of both sexes and maintain data base on breedable bovines for future planning.

Disease outbreak and parasitic infestation are the major causes for economic loss in livestock sector. Providing health cover to animals in remote areas, insufficient facilities for providing off-campus health cover and quick disease diagnosis are the major impediments in providing foolproof health cover to livestock.

This project aims to achieve fool proof and timely disease diagnosis and treatment even in inaccessible remote areas, better surveillance of disease outbreak etc., The project purposes to give major emphasis in controlling parasite diseases, establishment of Veterinary Clinic for off – campus treatment in remote areas, upgrading the existing Animal Disease Investigation Unit as Mobile Veterinary Diagnostic Laboratory and renovation of existing Veterinary dispensaries to provide better on-campus treatment.

i. Budget

Title	Agency	Total amount
Identification and traceability of breedable bovine population	DAH	37.56
Programmed breeding indigenous cattle & buffalo to increase conception rate	DDD	70.00
Buffalo calf development programme (2000 calves / year)	DDD	118.40
Control of parasitic diseases through treatment to enhance vaccine response	DAH	26.12
Mobile veterinary clinics	DAH	23.32
Strengthening of veterinary Institutions	DAH	195.00
Establishment of ADIU	DAH	24.50
Quality assurance lab strengthening	DDD	10.00
Total		**504.90**

ii. Problem Focus

The population of buffaloes is in decreasing trend inspite of their ability to convert crop residues into high quality milk. As buffaloes are silent heaters the farmers are unable to detect the heat and this results in very long intercalving period and loss of revenue. The buffalo calves of both sexes are highly neglected and very often affected with parasites and malnutrition resulting in stunted growth and late sexual maturity.

Parasitic diseases are the major causes for economic loss in Livestock sector. Parasitic infestation also reduces the vaccine response and enhances disease transmission. The parasitic infestation are highly prevalent in calves and small ruminants. Due to lack of sufficient facilities for sample collection, spot examination and quick diagnosis many ailments particularly at inaccessible and remote areas are under reported. This is one of the main constraints in controlling of Livestock diseases.

iii. Project Rationale

Demonstration and Popularizing heat synchronization in buffaloes and indigenous cows followed by AI to achieve 100% conception rate and nutritional supplementation of the buffalo calves will help the buffalo growers to adopt these technologies. Provision of timely and quick disease diagnostic facilities even in inaccessible and remote areas where livestock population is concentrated will not only control livestock disease outbreak but also reduce economic loss.

iv. Project Strategy

a. Identification and tagging of breedable cattle and buffaloes.
b. Demonstration of heat synchronization followed by Artificial Insemination to improve the conception rate.
c. Demonstrating the effect of supplemental feeding to the buffalo calves on their economic traits.
d. Providing foolproof off–campus Veterinary facilities through mobile veterinary clinics. Strengthening of mobile input units for providing livestock health care
e. Renovation of existing Veterinary dispensaries to provide on–campus quality Veterinary service to Livestock

v. Project Goals

a. To improve the conception rate and reduce intercalving period in buffaloes.
b. To demonstrate improvement in economic traits on account of proper nutrition to buffalo calves.
c. To achieve timely disease diagnosis and control of diseases even is inaccessible remote areas.
d. To ensure better surveillance and prevention of disease out break.
e. To minimize economic loss in Livestock sector due to diseases.

vi. Project Components

All the breedable bovines that are brought for insemination will be tagged and the cow Index card (data base) for each tagged bovine will be maintained. A total of 1,87,800 breedable bovines will be thus identified and included in data base in 4 years. The project will be continued even after the completion of NADP. The cost per animal will be Rs.12 to cover the cost of Tag and Rs.8 for the issue of Blue Index card. The total cost will be Rs.37.56 lakh for 1 year. This component will be implemented both by the Department of Animal Husbandry.

i. The cost per animal is estimated as below

S.No	Item	Total
1	Hormones & animal identification	500.00
2	De-worming	50.00
3	Mineral mixture etc	130.00
4	Miscellaneous & Monitoring	13.00
5	Administrative charges	7.00
	Total	**700.00**

The Indigenous cattle and buffaloes numbering 10000 will be covered at the rate of 2500 per year to heat synchronization and subsequent A.I to achieve 100% conception rate. At the unit cost of Rs.700/- per animal a total of Rs.70.00 lakhs will be utilized in 4 years.

ii. The cost per calf is estimated as below

S.No	Item	Grant in Rs.	Beneficiary contribution in Rs.	Total in Rs.
1	Feed cost @ Rs.10 per Kg for 1740Kg.	12200.00	5200.00	17400.00
2	Identification & Insurance of calves	700.00	0.00	700.00
3	De-worming, Vaccination, breeding and health cover	1000.00	0.00	1000.00
4	Miscellaneous & administrative charges	900.00	0.00	900.00
	Total	**14800.00**	**5200.00**	**20000.00**

iii. In the Buffaloe calves development programme at the rate of 200 calves per year a total of 800 calves of either sex will be supplied with supplemental concentrate feed upto 32 months age at 100% subsidy. The total cost will be Rs.118.40 lakhs.

iv. Control of parasitic diseases through treatment to increase vaccine response.

v. Mobile Veterinary Clinics are proposed at the block headquarters of all the districts except in places where the units are already functioning.

- Each unit will consist of one Veterinary Assistant Surgeon, and 1 driver. The staff for the Mobile Veterinary Clinic will be sourced from the available staff in the department.
- One Veterinary Assistant Surgeon will be in charge of the vehicle. The vehicle will cover the remote and inaccessible villages on a scheduled programme of operation and render Veterinary Services.
- The unit will be provided with one vehicle at a cost of Rs.4.75 lakh.

- Medicines will be sourced from the Veterinary institutions available in the block itself and thus no additional funds are required to each unit to carryout treatment, deworming, vaccination etc.
- Necessary equipments like surgical and obstetrical kits, microscope, AI guns, etc apart from LN2 containers sheath will be provided to each unit.
- Diesel worth Rs.45,000/- will be provided per year to each unit for running the vehicle.
- The unit will prepare a scheduled tour programme on 6 days a week basis mentioning the villages that are being covered on each day about which the farmers will be intimated well in advance.
- The units will go around the area of operation as per the programme and carryout the activities providing breeding support and veterinary health care.

Anticipated expenditure (recurring and non-recurring expenditure) for one year for Mobile Veterinary Clinic.

Non-recurring Expenditure

1) Equipments (Rs.30, 000)	=	Rs.0.30 lakh
2) LN2 container (Rs. 30,000)	=	Rs.0.30 lakh
3) Small LN2 container (Rs.5000)	=	Rs.0.05 lakh
4) Jeep	=	Rs.4.75 lakh

Recurring Expenditure

Diesel 90 Lit x 12 xRs.40	=	Rs.0.432 lakh
Total cost	**=**	**Rs.5.832 lakh**

List of equipments and instruments required for one mobile veterinary unit

Sl.No	Name of the Item	Unit cost (in Rs.)
1.	Surgical Kit	5000
2.	Obstetrical Kit	5000
3.	Microscope	20000
	Total	**30,000**

Role of Animal Disease Intelligence Units

- Assisting field staff in disease diagnosis.
- Monitoring of disease outbreaks and helping field staff in containment of outbreak.
- Monitoring of livestock health in the district.
- Seromonitoring in vaccination programmes.
- Surveillance for bird flu.

The cost of the vehicle along with equipments will be approximately Rs.12/- lakh. The cost of the vehicle is approximately Rs.11.00 lakh. The cost of microscope will be Rs.0.50 lakh, cost of refrigerator will be Rs.0.25 lakh, cost of centrifuge will be Rs.0.15 lakh, cost of post mortem kits and other chemicals and chemical reagents will be Rs.0.10 lakh. In addition, they will be provided a recurring cost of Rs.1.00 lakh towards petroleum, Oil and Lubricants, Maintenance and purchase of stationeries etc. Thus each Animal Disease Intelligence Unit will be established at a cost of Rs.24.50 lakhs in which Rs.22.50 lakhs will be the non-recurring cost and Rs.2.00 lakhs will be the recurring cost.

Quality Assurance Lab

Sl. No.	Name of the equipment	Amount in lakhs
1.	Incubator	0.35
2.	Hot air oven	0.35
3.	Water bath	0.35
4.	Auto clave	0.30
5.	Microscope	0.50
6.	Laminar air flow	0.50
7.	Refrigerator	0.35
8.	Air conditioner	0.35
9.	Analytical Balance	2.00
10.	Water Distillation Plant	0.35
11.	Glass ware	0.50
12.	Chemicals & Bacteriological media	0.50
13.	Furniture and work tables	0.50
14.	Colony counter	0.10
15.	PH, TDS meter	1.00
16.	Civil work	2.00
	Total	**10.00**

vii. Project Cost and Financing

Title	Agency	2008-09	2009-10	2010-11	2011-12	Grand total
Identification and traceability of breedable bovine population	DAH	37.56	0	0	0	37.56
Programmed breeding indigenous cattle & buffalo to increase conception rate	DDD	17.50	17.50	17.50	17.50	70.00

Title	Agency	2008-09	2009-10	2010-11	2011-12	Grand total
Buffalo calf development programme (2000 calves / year)	DDD	29.60	29.60	29.60	29.60	118.40
Control of parasitic diseases through treatment to enhance vaccine response	DAH	6.53	6.53	6.53	6.53	26.12
Mobile veterinary clinics	DAH	23.32	0	0	0	23.32
Establishment of ADIU	DAH	24.50	0	0	0	24.50
Strengthening of veterinary Institutions	DAH	195.00	0	0	0	195.00
Quality assurance lab strengthening	DDD	0	0	0	10.00	10.00
Total		**334.01**	**53.63**	**53.63**	**53.63**	**494.90**

viii. Implementation Chart of the Project

S. No.	Project	Agency	08-09	09-10	10-11	11-12
1.	Identification and traceability of breedable bovine population	DAH	1,87,800	0	0	0
2.	Programmed breeding of Indigenous cattle and Buffalo to increase conception rate	DDD	2500	2500	2500	2500

S. No.	Project	Agency	08-09	09-10	10-11	11-12
3.	Buffalo calves Development Programme	DDD	200	200	200	200
4.	Control of parasitic disease through treatment	DAH	1	1	1	1
5.	Mobile Veterinary Clinic	DAH	4	0	0	0
6.	Establishment of ADIU	DAH	1	0	0	0
7.	Strengthening of veterinary Institutions	DAH	39	0	0	0
8.	Quality assurance lab strengthening	DDD	-	-	-	1

ix. Reporting

Concerned project implementing agency will report the progress to the respective financial authorities (DAH / DDD).

III. Improvement of Milk Collection, Processing, Value-addition and Marketing Facilities

Abstract

Current practice of laborious, time consuming and unhygienic hand milking of high yielders, measuring the procured milk instead of weighment, non-functional and dormant milk societies are the major contributing factors for low milk procurement in Co-operative milk societies. This project aims at increasing the milk procurement in Co-operatives, avoid unhygienic milk handling by milkmen, introduction of transparency in milk weighment and automation in milk Co-operative societies.

The project proposes to provide portable milking machine to continuous milk pourers to the milk co-operatives at 100% subsidy. A total of 100 machines will be supplied to the milk pourers 4 years. For milk weighment electronic balances will be provided to 329 milk Co-operatives with 100% subsidy. P.C. based Automatic Milk collection Station will be installed in 18 milk Co-operatives. A total 60 dormant milk Co-operatives will be revived by providing basic essential infrastructure. establishing 5000 litre capacity bulk milk cooler at villages, walk –in cooler at retail end, facility to manufacture ice-cream and milk khoa The Project will be implemented by the Department of Dairy Development at a total cost of Rs.232.29 lakhs.

i. Budget

Title	**Agency**	**Total amount**
Portable milking machines for farmers	DDD	18.00
Milk weighing machine for milk producers co-op. societies	DDD	55.93
P.C.based automatic milk collection stations to IDF villages milk producers cooperative societies	DDD	31.50
Revival of dormant MPCS	DDD	60.00
Bulk milk cooler	DDD	30.00
Walk-in coolers	DDD	30.00
Manufacturing facilities for milk khoa	DDD	4.62
Manufacturing facilities for ice cream	DDD	2.24
Total		**232.29**

ii. Problem Focus

i. Hand milking is time consuming, laborious and unhygienic, More over availability of skilled milk men is also problem now a days. With more and more number of high yielding cows, the number of milking also has to be increased which Necessitate continuous engagement of milk man.

ii. The milk pricing depends on total solid content and hence any problem in milk weighment badly affects the return to farmers.

iii. Not-so-Transparent activities at milk collection centres and problem in maintaining summary of milk supplied on daily, monthly and yearly basis affects the confidence of milk pourers.

iv. Non-functional, dormant but potential milk societies for want of certain basic infrastructure forces the farmers to depend on private vendors resulting in exploitation.

v. The District of Thiruvannamalai produces 2.59 lakh tonnes of milk annually through large number of Co-operative Societies spread over the district.

vi. The milk procured from Co-operative Societies has to be chilled within half an hour of milking to check further multiplication of bacterial load. More over customary odd hour milking in late evening by the farmers necessitate storing of procured milk at the milk co-operatives transportation next day.

vii. It is also necessary to convert the excess fluid milk into products which are in demand.

iii. Project Rationale

i. Introduction and popularization of simple machine milking will not only minimize milkmen problem but also avoid in unhygienic milk handling.

ii. Introduction of electronic weighing machines at the milk procuring societies and vis-a vis transparency will not only reduce man power involvement and pilferage but also improve efficiency in milk procurement.

iii. Installation of Automatic Milk collection Stations (AMS) will automatically measure weight of milk, fat content and total solid and give print out of payment slip to farmers. The AMC with personal computer will maintain complete record of the Dairy Co-operative together with all transactions.

iv. By providing essential milk procuring equipments and other infrastructure for record maintenance etc. the hitherto dormant milk societies could be revived and milk procurement increased. It will also free the farmers from the clutches of exploiting private vendors.

iv. In the District of Thiruvannamalai about 2.59 lakh tonnes of milk is collected annually from in rural areas. By establishing milk coolers the fluid milk could be chilled and stored at milk collection centres and walk -in -coolers will store the processed and packed milk. These measures will keep the bacterial load at minimum and reduce the processing cost.

iv. Project Strategy

i. Popularizing machine milking by providing portable milking machine to a total of 100 milk pourers in 4 years period with 100% subsidy.

ii. Providing electronic milk weighing machines to a total of 329 Co-operative milk societies procuring more than 500 lt milk per day.

iii. Providing P.C. based Automatic Milk collection Station facility to a total of 18 milk producers Co-operative societies procuring more than 1000 lt per day.

iv. Revival of a total of 60 hitherto dormant but potential milk societies by providing basic and essential milk procuring infrastructure.

v. Establishing bulk milk coolers along the rural operating milk routes to maintain quality of fluid milk.

vi. Locating walk–in-coolers at retail ends in urban areas to maintain quality of packed milk.

vii. Establishing Milk khoa and ice cream manufacturing facilities and product production and delivery infrastructure at the District Co-operative milk producers union Dairy to utilize excess fluid milk.

v. Project Goals

i. To increase the milk procurement and reduce exploitation by private milk vendors.

ii. To minimize labour problem in milking, milk procurement and avoid unhygienic milk handling.

iii. To ensure transparency in milk weighment at milk collection centre.

iv. To introduce automation in milk procurement and improve efficiency of milk handling.

v. To check the bacterial load of unprocessed fluid milk procured in rural collection centres.

vi. To establish facilities to manufacture milk khoa and Ice cream.

vi. Project Components

i. Supply of Portable simple milking machine costing Rs.0.18 lakh each to 100 milk pourers at 100% subsidy.

ii. Supply of electronic milk weighing machines costing Rs.0.17 lakh each to 329 Co-operative milk societies.

iii. Installation of PC based AMS having integrated milk weighing system, Electronic milk testing, Personal Computer with printer and battery with a capacity to analyze 120 – 150 milk samples per hour costing Rs.1.75 lakh to each of 18 Co-operative milk societies.

iv. Reviving 60 dormant but potential milk societies each at the cost of Rs.1.00 lakh each.

v. Establishing one number of 5000 lt capacity bulk milk cooler in one of the milk collection centres of milk co-operative at the total cost of Rs.30.00 lakh.

vi. Establishing a Walk – in – Cooler in urban retail end at the total cost of Rs,.30.00 lakh.

vii. Establishing six Milk Khoa manufacturing units at the total cost of Rs. 4.62 lakhs in 4 years period at the District Co-operative Milk Producers Union Dairy.

viii. Establishing two ice cream manufacturing units at the total cost of Rs.2.24 lakhs in 4 years period at the District Co-operative Milk Producers Union Dairy.

vii. Project Cost and Financing

Title	**Agency**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Grand total**
Portable milking machines for farmers	DDD	4.50	4.50	4.50	4.50	18.00
Milk weighing machine for milk producers co-op. societies	DDD	14.45	13.60	13.60	14.28	55.93
P.C. based automatic milk collection stations to IDF villages milk producers cooperative societies	DDD	8.75	8.75	8.75	5.25	31.50
Revival of dormant MPCS	DDD	15.00	15.00	15.00	15.00	60.00
Bulk milk cooler	DDD	30.00	0	0	0	30.00
Walk-in coolers	DDD	30.00	0	0	0	30.00
Manufacturing facilities for milk khoa	DDD	1.54	1.54	0.77	0.77	4.62
Manufacturing facilities for ice cream	DDD	1.12	1.12	-	-	2.24
Total		**105.36**	**44.51**	**42.62**	**39.80**	**232.29**

viii. Implementation Chart of the Project

S.No.	Project	Agency	2008-09	2009-10	2010-11	2011-12
1.	Supply of Portable Milking machine for farmers.	DDD	25	25	25	25
2.	Provision of electronic milk weighing machine for Co-operative milk societies	DDD	85	80	80	84
3.	Provision of P.C based AMS for Co-operative milk societies	DDD	5	5	5	3
4.	Revival of dormant Co-operative milk societies	DDD	15	15	15	15
5.	Establishing Bulk Milk Cooler	DDD	1	0	0	0
6.	Establishing Walk in Cooler	DDD	1	0	0	0
7.	Manufacturing facility for Milk Khoa	DDD	2	2	1	1
8.	Manufacturing facility for ice-cream	DDD	1	1	0	0

ix. Reporting

Concerned Project implementing agency will report the progress to respective financial authorities (DDD).

IV. Sheep and Goat Production

Establishment of Quality Germ Plasm Production Centres

Abstract

Inbreeding and non-availability of quality germplasm are the major reasons for low productivity in small ruminants. The Government farms which are the major sources

of germplasm input donot cope up with the demand. The Project aims at establishing germplasm production centres day SHG for distribution to needy farmers at nominal rates. The Project proposes to supply quality rams / bucks to organized farms at the rate of 2 animals per block at 100% subsidy which will be rotated for every 2 years @ cost of Rs.4000/- animal. The Department of Animal Husbandry and TANUVAS will implement the project at the total cost of Rs.36.00 lakhs.

i. Budget

Title	**Agency**	**Total amount**
Supply of rams / bucks to SHGs / Elite farmers @ 2/Bl (TANUVAS/DAH)	DAH	5.76
Intensive Sheep / Goat farming to improve meat production by SHGs @ 20 + 1 unit / Block / Year	DAH	30.24
Total		**36.00**

ii. Problem Focus

The district of Tiruvannamalai possesses 1.98 lakhs sheep and 1.50 lakh goats. However the economic traits in the small ruminants are poor due to heavy inbreeding and poor nutrition resulting in decreased meat production.

iii. Project Rationale

Non-availability of quality male and female germ plasm has resulted in severe inbreeding in small ruminant production of the district. The farmers mainly depend on Government farms for the quality male germplasm. However if the SHG / tribes/elite farmers are encouraged to establish germplasm production centres, the inbreeding could be minimized and meat production increased.

iv. Project Strategy

A number of Government and Non-Government Organizations are engaged in breeding of small ruminants though their number is not large. So there is need to rope in such organizations and encourage others in small ruminant breeding on scientific lines for production of rams and bucks so that such organizations can supplement the efforts of Government farms in meeting the requirement of breeding stock.

v. Project Goals

i. To supply quality Germ Plasm to needy farmers.

ii. To avoid inbreeding.

iii. To increase meat production.

vi. Project Component

i. Supply of Rams / Bucks at 100% subsidy to SHG / Elite farmers / Tribes having sheep or goat farm at the rate of 2 per block. The cost of each animal is Rs. 4,000 and a total of 144 animals will be supplied in four year of the project itself at the total cost of Rs.5.76 lakhs.

ii. Project for providing livelihood opportunities through sheep/goat rearing.

Sheep & Goat rearing is an important means of livelihood in the rural areas. While supporting agricultural activities, it provides supplementary employment and income to rural communities. Particularly at times of failure of agriculture due to prolonged drought, etc., it is animal husbandry activities, which sustain the income of rural communities. Animal rearing is an activity, which can easily be taken up by rural communities as skill and resource requirements are minimal, inputs are locally available and marketing does not pose a major problem. More importantly, animal husbandry is traditionally a women centric activity, providing them with income and employment.

Sheep & Goat rearing as an intensive activity can, therefore, provide the much needed diversification to the rural economy; create sustainable employment and income opportunities, particularly women. It is now well documented that livestock activities can improve family nutrition, be an important and growing source of alternative income and form an important means of accumulating savings under the direct control of women.

vii. Project Cost and Financing: Rs. 36.00 lakhs with 100% finance from NADP.

Title	**Agency**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Grand total**
Supply of rams / bucks to SHGs / Elite farmers @ 2/Bl (DAH)	DAH	1.44	1.44	1.44	1.44	5.76
Intensive Sheep / Goat farming to improve meat production by SHGs @ 20 + 1 unit / Block / Year	DAH	7.56	7.56	7.56	7.56	30.24
Total		**9.00**	**9.00**	**9.00**	**9.00**	**36.00**

viii. Implementing Chart of the Project

S.No.	**Project**	**Agency**	**2008-09**	**2009-10**	**2010-11**	**2011-12**
1.	Supply of rams / bucks to SHG/ elite farmers / Tribes	DAH	36	36	36	36
2.	Intensive Sheep / Goat farming to improve meat production by SHGs @ 20 + 1 unit / Block / Year	DAH	18	18	18	18

ix. Reporting

Concerned Project implementing agency will report the progress to respective financial authorities (DAH).

V. Training Programmes on Livestock Farming and Value-addition of Milk and Meat to the Farmers and Women SHGs under Capacity Building for Adoption of Technology and Training for Technical staff and Dairy Farmers

Abstract

This project proposes to conduct year – round off-campus and on- campus training programmes, village level campaigns on scientific system of Livestock farming, conducting skill development programmes to technical staff, workshops and exposure visit. All the programmes proposed will be implemented for 4 years at a total cost of Rs.84.70 lakh. While all the trainings to farmers and study tour to Research Stations will be conducted by the Tamil Nadu Veterinary and Animal Sciences University through its training centre at Vellore, the skill developmental programmes, study tour for milk pourers of Co-operative societies and workshop for milk producers at society level will be implemented by the Department of Dairy Development.

i. Budget

(Rs. in Lakhs)

Title	**Agency**	**Amount**
Farmers study tour @ Rs.5000/- per farmer	DDD	7.50
Orientation training / workshop for milk producers at society level	DDD	3.20
Study tour of farmers to livestock and poultry research station (TANUVAS) @ 50 persons/batch	TANUVAS	4.00
District Level Livestock Farmers Workshops	TANUVAS	20.00
Establishment of VUTRC at Tiruvannamalai (TANUVAS) for capacity building / training	TANUVAS	50.00
Total		**84.70**

ii. Project Focus

Extension Services are the tools for Technology transfer and capacity building to the Livestock growers. The Extension services provide the much needed information resource to the Livestock growers to update their technical skill.

iii. Project Rationale

Continuous updating of Technical skill is needed to the livestock growers for application of scientific interventions in Livestock farming systems to improve the production.

iv. Project Strategy

i. Conducting off -campus and on -campus Training programmes and village level campaigns on scientific system of Livestock farming.

ii. Conducting skill development programmes for Technical staff.

iii. Conducting farmers study tour to expose them to various organized farms and Research Stations.

iv. Providing orientation Training / Workshop for milk pourers at society level.

v. Project Goal

i. To update the Livestock growers with recent scientific interventions.

ii. To provide a platform to Livestock growers for interaction with Researchers to update their skills.

iii. To Transfer viable Technologies for adoption to increase Livestock Production.

vi. Project Components

i. Conducting study tour to 40 continuous milk pourers annually to organized dairy farms and Dairies at a total cost of Rs.7.50 lakh.

ii. Conduct of orientation of training/workshop for milk producers at society level at the unit cost of Rs.0.2 lakhs for a total number of units of 16, with the amount totaling to Rs.3.20 lakhs.

iii. Conducting 4 workshops annually for 4 years benefiting livestock farmers at a unit cost of Rs.5.0 lakhs for four such programmes, the amount totaling to Rs.20.0 lakh.

iv. Conducting exposure visit to Research Stations in 4 batches of 50 farmers each / year at a total cost of Rs. 4.00 lakh.

v. Establishment of VUTRC at Thiruvannamalai at a total cost of Rs.50.00 lakhs.

Establishment of VUTRC at Thiruvannamalai

Sl. No.	Particulars	Amount (Rs. in lakhs)
1.	Civil works (Building)	25.00
2.	Fencing	10.00
3.	Basic Equipments a. Laminar Air Flow (Class – I) Rs. 0.50 b. Centrifuge – Rs. 0.50 c. Airconditioner for Lab – Rs. 2.00 d. Deep freezer – Rs. 1.00 e. Spectrocytometre – Rs. 1.00 f. Analytical instrument – Rs. 10.00	15.00
	Total	**50.00**

vii. Project Cost and Financing

Title	Agency	2008-09	2009-10	2010-11	2011-12	Grand total
Farmers Study Tour @ Rs.5000/- Per Farmer	DDD	2.00	2.00	2.00	1.50	7.50
Orientation Training / Workshop For Milk Producers At Society Level	DDD	0.80	0.80	0.80	0.80	3.20
District Level Livestock Farmers Workshops	TANU VAS	5.00	5.00	5.00	5.00	20.00
Study tour of farmers to livestock and poultry research station (TANUVAS) @ 50 person/batch	TANU VAS	1.00	1.00	1.00	1.00	4.00
Establishment of VUTRC at Tiruvannamalai	TANU VAS	50.00	0	0	0	50.00
Total		**58.8**	**8.8**	**8.8**	**8.3**	**84.70**

viii. Implementation Chart of the Project

Project	Agency	2008-09	2009-10	2010-11	2011-12
Farmers study tour @ Rs.5000/- per farmer, 150 farmers for the 4 years	DDD	40	40	40	30
Orientation training / workshop for milk producers at society level, 16 numbers for the 4 years	DDD	4	4	4	4
District Level Livestock Farmers Workshops	TANU VAS	1	1	1	1
Study tour of farmers to livestock and poultry research station (TANUVAS) @ 50 person/batch , 16 numbers for the 4 years	TANU VAS	4	4	4	4
Establishment of VUTRC at Tiruvannamalai	TANU VAS	1	0	0	0

ix. Reporting

Concerned Project implementing agency will report the progress to respective financial authorities (DDD / TANUVAS).

Table 46. Thiruvannamalai District – Animal Husbandry Sector

(Rs. in Lakhs)

Sl. No	Project Title	Unit Cost	2008-2009		2009-10		2010-11		2011-12		Grand Total	
			Units	Cost	Units	Cost	Units	Cost	Units	Cost	Total Units	Total Cost
1	Popularizing chaff cutter @1No./Block/yr for SHGs/ elite farmers (0.10 Lakhs through NADP & 0.10 Lakhs farmer's share) (DAH)	0.1	18	1.80	18	1.80	18	1.80	18	1.80	72	7.20
2	Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops at 75% subsidy (Total cost: Rs. 0.15 Lakhs/Unit) (DAH)	0.1125	50	5.625	50	5.625	50	5.625	50	5.625	200	22.50
3	Control of parasitic diseases through treatment to enhance vaccine response (DAH)			6.53		6.53		6.53		6.53		26.12
4	Fodder production by SHGs @ 10 acre/Block/year (DAH)	0.235	180	42.30	180	42.30	180	42.30	180	42.30	720	169.20
5	Intensive sheep/goat farming to improve meat production by SHGs @ 20+1 unit / Block / year (DAH)	0.42	18	7.56	18	7.56	18	7.56	18	7.56	72	30.24

Table 46. Contd…. **(Rs. in Lakhs)**

Sl. No	Project Title	Unit Cost	2008-2009		2009-10		2010-11		2011-12		Grand Total	
			Units	Cost	Units	Cost	Units	Cost	Units	Cost	Total Units	Total Cost
6	Popularizing mineral mixture to improve livestock production @ Rs. 40 / Unit (DAH)	0.0004	46950	18.78	46950	18.78	46950	18.78	46950	18.78	187800	75.12
7	Mobile Veterinary clinics (DAH)	5.83	4	23.32							4	23.32
8	Traceability of breedable bovines @ Rs. 20 / Unit (DAH)	0.0002	187800	37.56							187800	37.56
9	Establishment of ADIU (DAH)	24.5	1	24.50							1	24.50
10	Strengthening of veterinary Institutions (DAH)	5	39	195.00							39	195.00
11	Supply of Rams / Bucks to SHG / Elite farmers @ 2/Block (TANUVAS / DAH)	0.04	36	1.44	36	1.44	36	1.44	36	1.44	144	5.76
	DAH-Total			**364.415**		**84.035**		**84.035**		**84.035**		**616.52**
1	Programmed Breeding Indigenous Cattle & Buffalo To Increase Conceptionrate (DDD)	0.007	2500	17.50	2500	17.50	2500	17.50	2500	17.50	10000	70.00

Table 46. Contd…. **(Rs. in Lakhs)**

Sl. No	Project Title	Unit Cost	2008-2009		2009-10		2010-11		2011-12		Grand Total	
			Units	Cost	Units	Cost	Units	Cost	Units	Cost	Total Units	Total Cost
2	Buffalo Calf Development Programme (2000 Calves / Year) (DDD)	0.148	200	29.60	200	29.60	200	29.60	200	29.60	800	118.40
3	Supply Of Mineral Mixture To The Milch Animals At Subsidised Cost (50%) @ 18 Kg/ Year (DDD)	0.005	5000	25.00	5000	25.00	5000	25.00	5000	25.00	20000	100.00
4	Supply Of By-Pass Protein Feed To The Milch Animals (360kgs/ Year/Animal @ 50% Subsidised Cost Of Rs.9/- Per Kg.) (DDD)	0.033	200	6.60	200	6.60	200	6.60	200	6.60	800	26.40
5	Portable Milking Machines For Farmers (DDD)	0.18	25	4.50	25	4.50	25	4.50	25	4.50	100	18.00
6	Chaff Cutters For Elite Farmers (Small Type) @Rs.20,000 As 100% Grant (DDD)	0.20	13	2.60	13	2.60	13	2.60	11	2.20	50	10.00
7	Bulk Milk Cooler (DDD)	30.00	1	30.00							1	30.00
8	Walk-In Coolers (DDD)	30.00	1	30.00							1	30.00

Table 46. Contd…. **(Rs. in Lakhs)**

Sl. No	Project Title	Unit Cost	2008-2009		2009-10		2010-11		2011-12		Grand Total	
			Units	Cost	Units	Cost	Units	Cost	Units	Cost	Total Units	Total Cost
9	Revival Of Dormant MPCS (DDD)	1.00	15	15.00	15	15.00	15	15.00	15	15.00	60	60.00
10	Fodder development activities (for production of fodder seed/ slips in dairy or chiling centres & land of DDD) 5 ACRES (DDD)	2.10	5	10.50							5	10.50
11	Fodder Development Activities (100 acres in 100 IDF villages (DDD)	0.235	25	5.875	25	5.875	25	5.875	25	5.875	100	23.50
12	Manufacturing Facilities For Milk Khoa (DDD)	0.77	2	1.54	2	1.54	1	0.77	1	0.77	6	4.62
13	Manufacturing Facilities For Icecream (DDD)	1.12	1	1.12	1	1.12					2	2.24
14	Milk Weighing Machine For Milk Producers Co-Op. Societies (DDD)	0.17	85	14.45	80	13.60	80	13.60	84	14.28	329	55.93
15	P.C.Based Automatic Milk Collection Stations To IDF Villages Milk Producers Cooperative Societies (DDD)	1.75	5	8.75	5	8.75	5	8.75	3	5.25	18	31.50

Table 46. Contd…. **(Rs. in Lakhs)**

Sl. No	Project Title	Unit Cost	2008-2009		2009-10		2010-11		2011-12		Grand Total	
			Units	Cost	Units	Cost	Units	Cost	Units	Cost	Total Units	Total Cost
16	Quality Assurance Lab Strengthening (DDD)	10.00	1	10.00							1	10.00
17	Farmers Study Tour @ Rs.5000/- per farmer (DDD)	0.05	40	2.00	40	2.00	40	2.00	30	1.50	150	7.50
18	Orientation Training / Workshop For Milk Producers At Society Level (DDD)	0.20	4	0.80	4	0.80	4	0.80	4	0.80	16	3.20
	DDD-TOTAL			**215.835**		**134.485**		**132.595**		**128.875**		**611.79**
1	District Level Livestock farmers Workshops (TANUVAS)	5	1	5.00	1	5.00	1	5.00	1	5.00	4	20.00
2	Study tour of farmers to livestock and poultry research station (TANUVAS) @ 50 persons/batch (TANUVAS)	0.25	4	1.00	4	1.00	4	1.00	4	1.00	16	4.00
3	Establishment of VUTRC at Tiruvannamalai (TANUVAS) for capacity building / training	50	1	50.00							1	50.00
	TANUVAS - Total			**56.00**		**6.00**		**6.00**		**6.00**		**74.00**
	Grand total			**636.25**		**224.52**		**222.63**		**218.91**		**1302.31**

6.3.1 Fisheries Sector

Intervention required Areas

- Infrastructure development to attain self sufficiency in seed production through private and Government.
- Expansion of fish culture in all water bodies
- Infrastructure development to modernize the existing marketing facilities in key areas
- Training Programme to the fisher farmers for developing capacity building.

Project Proposals

1. 50% Subsidy assistance to Private Fish Seed Rearing / Fish Seed Production

Abstract

The fish farmers in Thiruvannaamalai district are progressive farmers and evince interest in adopting modern technologies in fish seed production / fish production. The resources can be utilised to expand the inland fisheries activities in the district. The potential can also be tapped to cater to the need of other districts. Hence, it is proposed to encourage private participation in fish seed production / fish seed rearing by extending subsidy assistance of 50% of the capital cost with a production capacity of 10 million early fry / fishing one million fingerlings.

i. Budget : Rs. 25.00 lakhs

ii. Background / Problem Focus

Thiruvannaamalai district has 1836 active inland fishermen. There is a lack of infrastructure facilities for rearing. Hence, the farmers have to be encouraged with subsidy to improve ponds. The project will be implemented by State Fisheries Department.

iii. Project Rationale

To increase good quality fish seed and fish production capacity

iv. Project Strategy

To encourage the farmers with subsidy to improve production.

v. Project Goals

To encourage private participation in fish seed prods / fish seed rearing by extending subsidy assistance of 50% of the capital cost.

vi. Project Components

Hatchery and nursery.

vii. Project Cost and Financing

Total cost : 25.00 lakhs

Unit cost : 5.00 lakhs (cost of construction of pond, purchase of implements including net and seed)

No. of units : 5 ha

S.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders and establishment of farm ponds	√	√	√	√

viii. Implementation Chart of the Project

S.No	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Identification of fish farmers and water bodies	√			
2.	Extension of subsidy		√	√	√

ix. Reporting

Quarterly progress will be reported to the monitoring Agency by the implementing agency. Annually the progress can be reviewed with regard to production, possible enhancement, adoption rate etc.

2. Rearing of Fish Seeds in Cages (50% subsidy)

Abstract

Thiruvannaamalai district has nearly 200 system and non-system tanks are available and in these tanks fishes could be reared in cages. Hence, the fish production could be increased through supply of fish seeds @ 50% subsidy to the fish farmers.

i. Budget : Rs. 3.75 lakhs

ii. Background / Problem Focus

- Inadequate infrastructure development causing problems to attain self Sufficiency in seed production
- Fish seed production / Rearing is not adequate. The fish seed demand is mostly met Import from other Districts / States near by.
- Fish seed production / rearing in private sector has been not encouraged to minimize intake from neighboring States.
- Fish culture activity shall be encouraged by extending 50% subsidy on inputs.

iii. Project Rationale

- Infrastructure development to attain self sufficiency in seed production
- Fish seed production / rearing in private sector should be encouraged to minimize import from other States.
- Fish culture activity shall be encouraged by extending 50% subsidy on inputs.

iv. Project Strategy

Mismatch of major carp breeding season and water availability period in tanks. Inadequate infrastructure facilities for seed rearing and fish marketing. So seed of carps in enhance.

v. Project Goals

- To increase good quality fish Seed and fish production capacity
- To expand fish culture in hitherto unutilized water bodies.
- To produced 10 lakhs crab seeds every year.

vi. Project Components

Repair / Renovation of Carp nurseries, Provision of bore well, Water supply arrangement, Crap seeds and 50% subsidy.

vii. Cost and Financing

Total cost : 3.75 lakhs

Number of trainees : 50

Unit cost : Rs . 0.075

S.No.	Particulars	App. Budget (Rs. in lakhs)
1)	Construction of cage	0.05
2)	Installation materials	0.01
3)	Seed stocking	0.015
Total		**0.075**
50 x 0.075		**3.75**

viii. Implementation Chart of the Project

S.No	Particulars	2008-09	2009-10	2010-11
1	Fabrication and installation of cage			
2.	Rearing of seeds	√	√	√

ix. Reporting

The project will be implemented by Department of Fisheries.

3. Supply of Mopeds fitted with Ice Box to Retail Fish Vendors (50% subsidy)

Abstract

The fish landing Centres in the inland side are located in remote places. The fish vendors are transporting the fish catches by bi-cycles which often leads spoilage of fishes. In order to quickly transport the fishers to the retail markets, it is proposed to distribute 100 units of Mopeds fitted with ice box to retail vendors.

i. Budget : Rs. 4.50 lakhs

ii. Background / Problem Focus

For transporting and progressing fish hygienically.

iii. Project Rationale

Fishermen and vendors will be provided with ice box and mopeds could help make available of the fish produce in time with quality retention.

iv. Project Strategy

- Making available mopeds and ice box at affordable price to meet the fishermen needs.
- To avoid fish spoilage due to delay in reaching the market site

v. Project Goals

To promote and sale of fish of high quality with hygiene.

vi. Project Components

Supply of 30 units of mopeds with ice box at 50% subsidy.

vii. Project Cost and Financing

Cost of unit	:	0.15 Lakhs
Cost of the moped	:	0.25
Ice box	:	0.05
Total cost	:	0.3
Subsidy	:	0.15(@ 50 %)
No of units	:	30 units
Total cost 30 x 0.15	:	4.5 lakhs
		Rs. 4.50 lakhs for 30 units

viii. Implementation Chart of the Project

S.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Identification of vendors	√			
2.	Procurement of mopeds and ice box distribution	√	√	√	

ix. Reporting

Progress of the project will be reported periodically by State Fisheries department

4. Supply of Fishing Implements (50% subsidy)

Abstract

Fishermen will be provided with gill nets for effective fishing.

i. Budget : Rs 5.00 lakhs

ii. Background / Problem Focus

To provide gillnets to the fishermen at 50% subsidy

iii. Project Rationale

To enhance fish production through capture fisheries.

iv. Project Strategy

To provide 100 gillnets to the inland fishermen.

v. Project Goals

To intervene fishing in natural water bodies.

vi. Project Components

Supply of gillnets at 50% subsidy

vii. Project Cost and Financing

No. of units : 100

Unit cost : 0.05 lakh (purchase of coracle and nets)

Total cost (100 units x 0.0.5) : Rs. 5 .00 lakhs :

viii. Implementation Chart of the Project

The project will be implemented in four years period (2008-12)

S.No	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Purchase and supply of coracle and nets	√	√	√	√

ix. Reporting

The progress of the project will be evaluated periodically by Department of Fisheries

5. Expansion of Fish Culture in open Water System (50% subsidy)
500 tanks- (750 ha)

Abstract

The fish culture and fish production can be improved in open water system through 50% subsidy to the fish farmers. This will help improving open water fish culture system efficiently.

i. Budget : Rs 4.69 lakhs

ii. Background / Problem Focus

To utilize open waters for freshwater fish culture.

iii. Project Rationale

To enhance fish production through fish culture.

iv. Project Strategy

To increase the fish production in open water systems.

v. Project Goals

To increase the fish production in open water systems.

vi. Project Components

Supply and stocking of Fingerlings.

vii. Project Cost and Financing

Unit cost	:	Rs.625/-
Total No.of Units.	:	750 ha
Subsidy	:	50%
Subsidy amount	:	Rs.4.69 lakhs

viii. Implementation Chart of the Project

S.No	Particulars	2008-09	2009-10	2010-11
1.	Identification of fish farmers	√	√	√
2.	Supply of fish seeds	√	√	√

ix. Reporting

The progress of the project will be reported periodically.

6. Infrastructure Development in pre harvest for effective conservancy in reservoirs to increasing fish production

Abstract

To increase the fish production in reservoirs infrastructure development such as FRP coracles are necessary. Therefore this shall be given to the fish farmers.

i. Budget : Rs 0.30 lakh

ii. Background / Problem Focus

Development of infrastructure facilities in reservoirs to increase fish production.

iii. Project Rationale

Developing infrastructure facilities.

iv. Project Strategy

Increasing fish production through development of basic infrastructure facilities in order to increase fish production in reservoirs.

v. Project Goals

To improve infrastructure development in reservoir for increasing fish production.

vi. Project Components

Infrastructure development

vii. Project Cost and Financing

Unit cost	:	Rs. 0.10 lakh
Total units proposed	:	3 units
Total cost	:	Rs. 0.30 lakh

viii. Implementation Chart of the Project

Sl.No.	Particulars	2009	2010	2011
1.	Purchase of FRP coracles	√		
2.	Distribution to the farms	√	√	√

ix. Reporting

The progress of the project will be reported periodically.

7. Capacity Building and Training to the Fish Farmers

Abstract

To train the trainees in the Dept. of fisheries in the advanced fisheries technologies and to enhance the technical knowledge of the scientist involved in fisheries development who formulate and implement new projects.

i. Budget : Rs. 10.00 lakhs

ii. Background / Problem Focus

The fisheries staff of TANUVAS and State fisheries officials have to be trained in recent advances of fisheries techniques for dissemination to the field level staff, fisherfolk and entrepreneurs. So they have to be empowered with adequate knowledge by than exposure. It will also help in formulation of new project proposals.

iii. Project Rationale

Empowering the fisheries staff, official and the field level staff in modern fisheries techniques for updating.

iv. Project Strategy

Improving existing skill of fisheries staff, official and the field level staff in modern fisheries techniques.

v. Project Goals

To empower the fisheries staff and officials.

vi. Project Components

Fisheries staff of TANUVAS, State Fisheries Department officials and scientist – empower by the dissemination of new techniques in various fish technologies like aquaculture ornamental fish culture, value added fishery products, net, gear application, raceways, cage fish farming

vii. Project Cost and Financing

Total cost	:	10 lakhs
Number of trainees	:	100
Unit cost	:	Rs . 0.10

S.No.	Particulars	App. Budget
1.	Providing Stipend to the trainees	Rs. 5000
2.	Extension materials	Rs. 3500
3.	Miscellaneous	Rs. 1500
Total		**Rs. 10000**
100 x 10000		**Rs.10.00 lakhs**

viii. Implementation Chart of the Project

The project will be implemented with in the time frame of three years.

S.No	Particulars	2008-09	2009-10	2010-11
		I Qtr	II Qtr	III Qtr
1.	Selection of trainees	√		
2.	Extending training		√	
3.	Evaluation and reporting			√

ix. Reporting

Reviewed and monitored by Tamilnadu Veterinary and Animal Sciences University.

8. Installation of Modern Fish Stall

Abstract

Retail market will have 20-25 fish stalls where facilities like ice boxes, crates, electronic balance and dressing table are provided along with electricity, draining and water facilities

i. Budget : Rs. 10.00 lakhs

ii. Background / Problem Focus

The retail market at present are poorly maintained. The essential market infrastructure like electricity, water, drainage and civic amenities in most of the retail fish markets are inadequate.

iii. Project Rationale

This is the last link in the marketing channel. Consumers' satisfaction is guaranteed at this retail outlet.

iv. Project Strategy

The retail market will be located in 20 district headquarters of Tamilnadu based on the marketing potential

v. Project Goals

- Providing quality fishes at reasonable price.
- To enhance revenue for the fisher folk engaged in fish marketing

vi. Project Components

Creation of modern fish stall.

vii. Project Cost and Financing

Rs. 10.00 lakhs : 1 Unit.

Sl. No.	Details	Unit cost Rs. in lakhs	No. of units	Total Rs. in lakhs
1.	Building (1250 sq. ft.) with provision for 5 stalls with electricity, water supply and drainage	5.00	1	5.00
2.	Office room (500 sq. ft.)	2.00	1	2.00
3.	Ice boxes	0.05	20	1.00
4.	Weighing balance	0.05	20	1.00
5.	Dressing table, knives, crates, price display board etc.	0.05	20	1.00
	Total			**10.00**

viii. Implementation Chart of the Project

The modern fish stall will be established as follows:

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Construction of fish stall Purchase of ice boxes, crates, electronic balance, tables etc.	√			

ix. Reporting

All the retail fish markets will be monitored by the Dept. of Fisheries.

9. Repair of existing fish seed rearing ponds and creation of additional rearing space development facility of landing centre

- Repair of existing fish seed rearing ponds of 1.70 ha area for replacement of soil water supply arrangements and repairs
- Creation of additional rearing space of 0.50 ha i.e. 5000 sq.m @ 3000 per sq.m

Abstract

Repair of existing fish seed rearing ponds and creation of additional rearing space development facility of landing centre, supply of crafts and gear to the fishermen. In order to increase the fish production and to improve the socioeconomic status of fisherfolk. This programme will be taken up by TNFDC.

i. Budget : Rs. 150.00 lakhs

ii. Background / Problem Focus

The existing facilities available need to the repaired and additional facilities needs to be created.

iii. Project Rationale

Creation of additional fish seeds rearing space for the development of fisheries in this district.

iv. Project Strategy

Development of additional fish seeds rearing facilities.

v. Project Goals

- To repair existing fish seed rearing ponds.
- To develop facility for landing centre supply of crafts and gear to the fishermen.

vi. Project Components

- Repair of existing fish seeds rearing ponds.
- Creation of additional rearing space.

vii. Project Cost and Financing

Unit cost	;	Rs.150.00 lakhs
No. of units	:	1No.

Civil woks

Sl. No.	Name of the work	Cost Estimate Rs.in lakhs
1)	Repair of the existing fish seed ponds 2000 sq.m @ Rs.1500/sq.m	30.00
2)	Creation of additional nursery ponds 3000 sq.m @ Rs.3000/ sq.m	90.00
3)	Provision of pipe line.	2.00
4)	store room and a laboratory	15.00
5)	Electrical appliances	3.00
6)	One over head tank	3.00
7)	bore well	2.00
8)	Motor with accessories	5.00
	Grand Total	**150.00**

viii. Implementation Chart of the Project

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Repair of existing fish seed rearing ponds and creation of additional rearing space development facility of landing centre	√			

ix. Reporting

Quarterly progress will be reported to the monitoring agency for review.

10) Development of Facilities at Landing Centre

Abstract

The landing centre may be created in order to improve the fish landing facilities so as to enable the fishermen to get higher income for their catch.

i. Budget : Rs. 10.00 lakhs

ii. Background / Problem Focus

To develop basic infrastructure facilities for landing centre.

iii. Project Rationale

Creation of landing centre facilities for fishermen in order to get high price for their catch.

iv. Project Strategy

Development of landing centres for fishermen in Thiruvannamalai district.

v. Project Goals

To develop facilities fish landing centre.

vi. Project Components

Facilities landing centre, supply of crafts and gears.

vii. Project Cost and Financing

Project cost	:	Rs. 10.00 lakhs
Unit cost	:	10 lakhs

Sl. No.	Particulars	Cost (Rs. in lakhs)
1	Auction hall	7.50
2	Cold Storage	2.00
3	Electronic balance, ice crusher etc	0.50
	Total	**10.00**

viii. Implementation Chart of the project

S. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders	√			
2.	Construction of auction hall and cold storage		√	√	

ix. Reporting

The project will be implemented and monitored by The State Fisheries Department.

Table 47. Thiruvannamalai District – Fisheries Sector

(Rs.in lakhs)

Sl. No.	Components	Implementing Agency	Total units	Unit cost	2008-09		2009-10		2010-11		2011-12		Total cost
					Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	
1	50% subsidy assistance to private fish seed rearing /fish seed production	Fisheries Department	5	5.00	1	5.00	2	10.00	1	5.00	1	5.00	25.00
2	Rearing of fish seeds in cages (50% subsidy)	Fisheries Department	50	0.075	20	1.50	20	1.50	10	0.75			3.75
3	Supply of Mopeds fitted with ice box (50% subsidy)	TAFCOFED	30	0.150	10	1.50	10	1.50	10	1.50			4.50
4	Supply of fishing implements (50%subsidy)	Fisheries Department	100	0.05	30	1.50	30	1.50	30	1.50	10	0.50	5.00
5	Expansion of fish culture in open water system - 500 tanks(750ha) (50%subsidy)	Fisheries Department	750 ha	0.00625	250	1.5625	250	1.5625	250	1.5625			4.6875
6	Infrastructure development in pre harvest for effective conservancy in reservoirs to increase fish production for the purchase of FRP, coracles	Fisheries Department	3	0.10	1	0.10	1	0.10	1	0.10			0.30
7	Installation of modern fish stalls at Thiruvannamalai	TNFDC	1	10.00	1	10.00							10.00

(Rs.in lakhs)

Sl. No.	Components	Implementing Agency	Total units	Unit cost	2008-09		2009-10		2010-11		2011-12		Total cost
					Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	
8	Repair of existing fish seed rearing ponds and creation of additional rearing space development facility of landing centre, supply of crafts and gears to the share fishermen a. Repair of existing fish seed rearing ponds of 1.70ha area for replacement of soil water supply arrangement and repairs b. Creation of additional rearing space development space of 0.50 ha i.e 5000 sq.m @ Rs.3000 per sq.m	TNFDC	1	150.00	1	150.00							150.00
	c. Development of facilities at landing centre	TNFDC	1	10.00	1	10.00							10.00
	Fisheries Total					**181.1625**		**16.1625**		**10.4125**		**5.5000**	**213.2375**
1	Capacity building and training to the fish farmers	TANUVAS	100	0.10	30	3.00	30	3.00	30	3.00	10	1.00	10.00
	TANUVAS – Total					**3.00**		**3.00**		**3.00**		**1.00**	**10.00**
	Grand Total					**184.1625**		**19.1625**		**13.4125**		**6.5000**	**223.2375**

6.4. Agricultural Engineering

Introduction

Thiruvannamalai District is a drought prone district with erratic and less than normal rainfall recorded during the past several years. Most of the rivers in this district are dry for years together; the major irrigation tanks which are mostly system tanks are also dry for the most part of the year. This has resulted in over exploitation of ground water through open wells and deep bore wells. Hence it is essential to recharge the ground water table which has gone very deep during the recent years. Out of the 18 blocks in this district, nine are over exploited, two are critical and five are semi critical and balance two are safe in terms of ground water potential. Since, Thiruvannamalai District is very near to Chennai and Bangalore cities, it has resulted in the large scale migration of farm labourers. This has resulted in a great demand for agricultural labourers and the farmers in this district face a lot of problems in getting farm labourers.

To over come the above problems, several soil and water conservation measures have been proposed in this project to recharge the ground water potential besides different farm machineries for reducing the cost of labour and increasing the labour efficiency.

6.4.1. The Thrust Areas Focused in the Project is

- **Rain Water harvesting :-** Rain water harvesting deals with harvesting of surplus water flowing to sea as excess run off through construction of farm ponds, rejuvenation of percolation ponds with recharge shaft and construction of check dams

- Agricultural mechanization is proposed to over come the agricultural labour problems.

i) Project Rationale

Due to the depletion of ground water and shortage of agricultural labour, agriculture in Thiruvannamalai District has become very difficult and uneconomical. Measures to improve the ground water potential and mechanization of agriculture to solve the labour demand has become the most essential steps to make agriculture, viable and remunerative.

ii) Project Strategy

To improve the ground water potential and to mechanise agriculture, the following components are proposed in this project.

1. Stream-I

a. Introduction of newly developed Agricultural machineries / Implements

b. Innovative Water Harvesting Structures and

c. Promoting concept of Mechanized Villages

2. Stream-II

a. Popularization of Agricultural Mechanization through conventional machinery/equipments
b. Conventional Water Harvesting Structures
c. Soil Conservation Works and
d. Water Management Works

To popularize the conventional agricultural machineries / equipments, a subsidy of 25 per cent of the cost of machinery has been proposed. To introduce newly developed agricultural machinery/equipments, a subsidy of 50 per cent of the cost of machinery has been proposed whereas a subsidy of 75 per cent has been proposed for

gender friendly equipments. Similarly 100 per cent subsidy has been proposed for community water harvesting structures and 90 per cent subsidy has been proposed for individual Water Harvesting Structures, soil conservation works and water management works.

iii) Project Goals

1. Mechanizing agriculture through popularization of existing machinery/implements and introduction of new machinery/implements thereby making agriculture viable and remunerative.
2. Harvesting rainwater and developing ground water potential
3. Control of Soil erosion and management of runoff.
4. Controlling of silt deposition in major reservoirs and
5. Improving agriculture thereby increasing food production.

iv) Project Components

Stream-I

1. Introduction of newly developed agricultural machinery/implements like Mini Combined Harvestesr, Multi Crop Thrasher, Paddy Transplanter, Maize Husker Sheller, Coconut Dehusker, Groundnut Decordicator, Chisel Plough, Tractor Operator combined Harvester, etc.,
2. Innovative water harvesting structures like lined farm ponds, rejuvenation of percolation ponds with recharge shafts and
3. Promoting the concept of mechanized villages through distribution of crop based package of agricultural machinery

Stream-II

1. Popularization of conventional machinery/equipments like Power Tiller, Rotavator, Cultivator, Offset Disc Harrow, Disc Plough etc.,
2. Water harvesting structures like Farm Ponds, Checkdams, Percolation Ponds, Recharge shaft, New Village Tanks etc.,
3. Soil conservation Works like Compartmental bunding, Land shaping and Terrace

v) Implementation

The Project is proposed for a period of four years. The Component wise and year wise split up implementation along with costs are furnished in Table 51.

vi) Reporting

The project is proposed considering all the success parameters. The project is feasible as the project suggests an alternate method to the existing water scarcity problems. The project would be well received among farming community. With the support of DAC and Government of TamilNadu, the project can be implemented successfully and this programme will revolutionize the agriculture in TamilNadu. The progress of the projects will be reported to the authoritaties periodically.

Table 48. Details of Recommended Interventions Agricultural Engineering Sector with Costs

(Rs. in lakhs)

Sl. No.	Project component	Unit cost	Subsidy percentage	2008-2009		2009-2010		2010-2011		2011-2012		Total	
				Nos	Cost	Nos	Cost	Nos	Cost	Nos	Cost	Nos	Cost
	STREAM - I												
I	**Introduction of Newly Developed Agricultural Machinery / Implement**												
1	Mini combined harvester TNAU model	2.50	50%	-	-	5	6.25	5	6.25	6	7.50	16	20.00
2	Multi crop thrasher(High capacity)	2.10	50%	4	4.20	4	4.20	4	4.20	4	4.20	16	16.80
3	Power weeder with attachments (all models)	1.00	50%	-	-	-	-	-	-	-	-	-	-
4	Power thrasher	1.00	50%	2	1.00	2	1.00	2	1.00	2	1.00	8	4.00
5	Power transplanter	1.40	50%	3	2.10	3	2.10	3	2.10	3	2.10	12	8.40
6	Post hole digger	0.85	50%	8	3.40	8	3.40	8	3.40	8	3.40	32	13.60
7	Shredder (heavy)	1.00	50%	-	-	-	-	-	-	-	-	-	-
8	Shredder (meadium)	0.40	50%	-	-	-	-	-	-	-	-	-	-
9	Maize Husker sheller	0.90	50%	1	0.45	1	0.45	-	-	-	-	2	0.90
10	Coconut De-husker	0.60	50%	-	-	-	-	-	-	1	0.30	1	0.30
11	Groundnut decordicator	0.35	50%	5	0.875	5	0.875	5	0.875	5	0.875	20	3.50
12	Chisel plough	0.12	50%	5	0.30	5	0.30	5	0.30	5	0.30	20	1.20
13	Power weeder - Oleo mac	0.65	50%	-	-	-	-	-	-	-	-	-	-
14	Ratoon manager	1.00	50%	-	-	-	-	-	-	-	-	-	-
15	Multi crop thrasher (Tractor PTO)	1.25	50%	-	-	-	-	-	-	-	-	-	-

Table 48. Contd… **(Rs. in lakhs)**

Sl. No.	Project component	Unit cost	Subsidy percentage	2008-2009		2009-2010		2010-2011		2011-2012		Total	
				Nos	Cost	Nos	Cost	Nos	Cost	Nos	Cost	Nos	Cost
	STREAM - I												
16	Knapsac power operated Hydraulic sprayer	0.20	50%	5	0.50	5	0.50	5	0.50	5	0.50	20	2.00
17	Shredder (Tractor PTO operated)	0.85	50%	-	-	-	-	-	-	-	-	-	-
18	Power operated chaff cutter	0.30	50%	-	-	-	-	-	-	-	-	-	-
19	Japanese Yanmar 6 - row transplanter with nursery system	7.50	50%	1	3.75	1	3.75	-	-	-	-	2	7.50
20	Japanese Yanmar 8 - row transplanter with nursery system	10.50	50%	-	-	-	-	-	-	-	-	-	-
21	Korean 4 - row walk behind transplanter	2.00	50%	1	1.00	-	-	-	-	-	-	1	1.00
22	Combined harvester - Tractor operated	12.00	50%	1	6.00	1	6.00	1	6.00	1	6.00	4	24.00
23	Combined harvester - self propelled	16.00	50%	1	8.00	1	8.00	-	-	-	-	2	16.00
24	Maize combined harvester	16.00	50%	-	-	-	-	-	-	-	-	-	-
25	Gender friendly equipment	0.08	75%	20	1.20	20	1.20	20	1.20	20	1.20	80	4.80
	TOTAL			**57**	**32.775**	**61**	**38.025**	**58**	**25.825**	**60**	**27.375**	**236**	**124.00**
II	**Innovative Water Harvesting Structures**												
1	Lined farm pond with mobile sprinkler	3.00	90%	1	2.70	1	2.70	1	2.70	1	2.70	4	10.80
2	Rejuvenation of percolation pond with two recharge shaft	1.00	100%	30	30.00	30	30.00	30	30.00	30	30.00	120	120.00
	TOTAL			**31**	**32.70**	**31**	**32.70**	**31**	**32.70**	**31**	**32.70**	**124**	**130.80**

Table 48. Contd… **(Rs. in lakhs)**

Sl. No.	Project component	Unit cost	Subsidy percen tage	2008-2009		2009-2010		2010-2011		2011-2012		Total	
				Nos	Cost	Nos	Cost	Nos	Cost	Nos	Cost	Nos	Cost
	STREAM – I												
1	**Promoting the Concept of Mechanised Villages**												
1	Distribution of crop based package of Agrl. Machinery on cluster basis in the adopted village	Varied	75%										
	1. Paddy	31.67	75%	2	47.505	2	47.505	2	47.505	2	47.505	8	190.02
	2. Groundnut	3.52	75%	4	10.56	4	10.56	4	10.56	4	10.56	16	42.24
	3. Maize		-	-	-	-	-	-	-	-	-	-	-
	TOTAL			**6**	**58.065**	**6**	**58.065**	**6**	**58.065**	**6**	**58.065**	**24**	**232.26**
	GRAND TOTAL			**94**	**123.54**	**98**	**128.79**	**95**	**116.59**	**97**	**118.14**	**384**	**487.06**

Table 48. Contd… **(Rs. in lakhs)**

Sl. No	Project component	Unit cost	Subsidy percentage	2008-2009		2009-2010		2010-2011		2011-2012		Total	
				Nos.	Cost	Nos.	Cost	Nos.	Cost	Nos.	Cost	Nos.	Cost
	STREAM - II												
1	**Popularization of Agricultural Mechanization through Conventional Machinery / Equipments**												
a	Power tiller	1.16	25%	40	11.60	40	11.60	40	11.60	40	11.60	160	46.40
b	Rotavator	0.90	25%	40	9.00	40	9.00	40	9.00	40	9.00	160	36.00
c	Cultivator	0.16	25%	10	0.40	10	0.40	5	0.20	5	0.20	30	1.20
d	Offset disc harrow	0.47	25%	4	0.47	4	0.47	4	0.47	8	0.95	20	2.35
e	Disc plough	0.35	25%	4	0.35	4	0.35	4	0.35	8	0.70	20	1.75
	Sub Total			98	21.82	98	21.82	93	21.62	101	22.44	390	87.70
2	**Water Harvesting Structures**												
a	Farm pond - unlined	0.50	90%	50	22.50	50	22.50	50	22.50	50	22.50	200	90.00
b	Check dam - minor	0.30	100%	19	5.70	19	5.70	19	5.70	19	5.70	76	22.80
c	Check dam - medium	0.75	100%	40	45.00	40	45.00	40	45.00	40	45.00	240	180.00
d	Check dam - major	1.00	100%	5	5.00	5	5.00	5	5.00	5	5.00	20	20.00
e	Percolation pond	3.25	100%	-	-	1	3.25	1	3.25	-	-	2	6.50
f	Recharge shaft	0.30	100%	100	30.00	100	30.00	100	30.00	100	30.00	400	120.00
g	New village tanks	1.50	100%	1	1.50	1	1.50	1	1.50	1	1.50	4	6.00
h	Collection wells	0.40	90%	-	-	-	-	-	-	-	-	-	-
	Sub Total			**235**	**109.70**	**236**	**112.95**	**236**	**112.95**	**235**	**109.70**	**942**	**445.30**
3	**Soil Conservation Works**												
a	Compartmental bunding	0.03	90%	900	24.30	900	24.30	900	24.30	900	24.30	3600	97.20
b	Land shapping	0.10	90%	900	81.00	900	81.00	900	81.00	900	81.00	3600	324.00
c	Terrace support wall	0.30	90%	50	13.50	50	13.50	50	13.50	50	13.50	200	54.00
	Sub Total			**1850**	**118.8**	**1850**	**118.80**	**1850**	**118.80**	**1850**	**118.80**	**7400**	**475.20**
4	**Water Management Works**												
a	PVC pipe laying	0.15	90%	1500	202.50	1500	202.50	2000	270.00	2000	270.00	7000	945.00
b	Ground level reservoir	0.80	90%	-	-	-	-	-	-	-	-	-	-
c	Fertigation assembly	0.12	50%	-	-	-	-	-	-	-	-	-	-
	Sub total			**1500**	**202.50**	**1500**	**202.50**	**2000**	**270.00**	**2000**	**270.00**	**7000**	**945.00**
			Nos	**333**	**452.82**	**334**	**456.07**	**329**	**523.37**	**336**	**520.94**	**1332**	**1953.20**
	Grand Total		**Ha**	**3350**		**3350**		**3850**		**3850**		**14400**	

Abstract Budget

Table 49. Details of Over all Budget of Engineering Sector

(Rs. in Lakhs)

Year	Stream-I	Stream-II	Total
2008-2009	123.54	452.82	576.36
2009-2010	128.79	456.07	584.86
2010-2011	116.59	523.37	639.96
2011-2012	118.14	520.94	639.08
Total	**487.06**	**1953.20**	**2440.26**

6.5. Agricultural Marketing and Agribusiness

1. Current Status of Agribusiness

Agriculture, as a primary sector provides livelihood to 56 per cent of the population and contributes around 13 per cent of the State GDP. In value terms between 65 and 75 per cent of agricultural produce is transacted in markets, usually through long marketing chains, regulated markets and an emerging commercialized retail system in urban centers. Unorganized small players (handling less than 0.5 t/day) process more than 75 per cent of industry output. The Government is taking efforts to achieve targeted growth rate of 4 per cent in Agriculture during XI Plan period. Though fertile soil, good quality water and long period of sunlight which are the basic requirements for Agriculture are available in abundance in Tamil Nadu, still the productivity has not been enhanced to its potential level.

The Government is taking efforts to attain sustainable agricultural development by bringing agriculture as a commercial venture by switching over from the present method of cultivation through adoption of new scientific method of cultivation to increase the productivity manifold, value addition, processing and utilization of marketing opportunities. To improve the marketing opportunities for agricultural produce, the Uzhavar Shandies, post harvest management, cold storage facilities for perishables, food processing, establishment of export zones, terminal markets have been

taken up. To reduce the loss of the food products which are upto 30 per cent, necessary provisions are made in the Agricultural Industrial Policy to ensure remunerative price to the produce, encourage food processing sector and export to earn foreign exchange by increasing the food processing from the present level of 1 per cent to 10 per cent, out of the total production, increasing value addition from 7 per cent to 30 per cent. Under this policy, all assistance which is provided to other industries will be extended to agro based industries, agricultural machineries and industries manufacturing micro irrigation equipments.

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

2. Agribusiness and the National Development Goals

The Planning Commission's Mid-Term Appraisal (MTA) of the Tenth Plan notes that achieving higher growth rates depends on reversing the decline in growth of the agricultural sector and requires a move away from 'business as usual'. Under the eleventh Plan, areas identified for special attention in the agriculture sector included among others: (i) diversification to high value crops and activities; (ii) increasing cropping intensity; (iii) strengthening of marketing, processing and value addition infrastructure; (iv) revamping and modernizing the extension systems and encouraging the private sector to provide extension services; and (v) bridging the gap between research and farmers' yields.

For the agriculture sector, the eleventh Plan projected an annual growth rate of four per cent which was seen as achievable if growth of six to eight per cent could be achieved in horticulture. These growth rates have not achieved largely because

constraints identified in the Plan have not been overcome. These constraints include lack of modern and efficient infrastructure, poor technological support and post harvest management, underdeveloped and exploitative market structures, inadequate research and extension to address specific agricultural problems and linkages with farmers and industry. The strong relationship between agriculture and rural poverty means that current plans, policy and sector performance will be unable to address the needs of rural poor.

The two most important programs related to agribusiness development are the Technology Mission for Integrated Development of Horticulture (TM) and the National Horticultural Mission (NHM). The focus of the TM is production of horticultural products in Hill states, whereas post harvest management and processing have only a nominal presence. The NHM has a broader coverage of states and addresses issues of market infrastructure development and processing. However, the key issue of coordination within value chains is not addressed. There needs to be a better understanding of why despite generous subsidies in the past, progress has been slow with private investment in market infrastructure and development of the processing industry. At present 21 Market committees are functioning in Tamil Nadu at district Level There are 277 Regulated Markets, 15 Check Posts, 108 Rural Godowns and 108 grading centres functioning under the Market Committees.

3. Major Constraints and Challenges in Agricultural Marketing and Agribusiness Development in the State

Current agricultural marketing and agribusiness system in the state is the outcome of several years of Government intervention. The system has undergone several changes during the last 50 years owing to the increased marketed surplus; increase in urbanization and income levels and consequent changes in the pattern of demand for marketing services; increase in linkages with distant and overseas markets; and changes in the form and degree of government intervention. An important characteristic of agricultural produce markets in Tamil Nadu has been that private trade has continued to dominate the market. With the large quantities required to be handled by the private trade, the size and

structure of markets over time have considerably expanded. There are a large number of wholesalers and retailers to handle the trade in food grains. Apart from traders, processors also play an important role as they also enter in the market as bulk buyers and sellers.

Agricultural development continues to remain the most important objective of State planning and policy. The experience of agricultural development in the state has shown that the existing systems of delivery of agricultural inputs and marketing of agricultural output have not been efficient in reaching the benefits of technology to all the sections of farmers. The timely, quality and cost effective delivery of adequate inputs still remains a dream despite the marketing attempts of the corporate sector and the developmental programmes of the state. Also, the farmers are not able to sell their surplus produce remuneratively. There are plenty of distress sales among farmers both in agriculturally developed as well as backward regions in the State. There are temporal and spatial variations in the markets and the producers' share in consumers' rupee has not been satisfactory, except for a few commodities. In fact, in some commodities like tomato in some regions in State, producers end up making net losses at the same time when traders make substantial profits from the same crop. However, it needs to be recognized that producers' relative share in the final price of a product certainly goes down with the increase in the number of value-adding stages, and therefore, cannot be used as an indicator of a market's efficiency or inefficiency. Nevertheless, the other aspects of the market performance like absolute share of the producer in terms of remunerability, fluctuations in prices across seasons, large spatial price differences and lack of proper market outlets itself, are the issues which have become increasingly crucial in the present context. There are structural weaknesses of agricultural markets like unorganized suppliers as against organized buyers, weak holding capacity of the producers and the perishable nature of the produce in the absence of any storage infrastructure. In the presence of these characteristics of the market, the rural producers cannot simply be left to fend for themselves so far as marketing of their produce is concerned. And if the marketing system does not assure good returns to producers, not

much can be achieved in the field of product quality and delivery which are critical for processing and manufacturing sectors. In the environment of liberalization and globalization, the role of the state in agricultural marketing and input supply is being reduced, and an increasing space is being provided to the private sector to bring about better marketing efficiency in input and output markets. On the other hand, processors and/or marketers face problems in obtaining timely, cost effective, and adequate supply of quality raw materials.

Small farms produce more than 35 percent of State total grain, and over half of total fruits and vegetables despite being resource constrained. The marginal holdings have higher cropping intensity compared with that of the small, medium and large farmers, mainly owing to higher irrigated area as percentage of net sown area. The small and marginal farmers are certainly going to stay for long time in State though they are going to face a number of challenges. Therefore, what happens to small and marginal farmers has implications for the entire State and people's livelihoods. But, they can adequately respond to these challenges only if there is efficient marketing system for handling their small surpluses. Otherwise, they will only be losers in the process of globalization and liberalization. The viability of the small holdings is an important issue and promoting agricultural diversification towards high value crops through an efficient marketing system is argued to be one of the means through which this can be achieved. Hence there is an urgent need for specific intervention in agricultural marketing in Tamil Nadu.

4. Sector Problem Analysis

The core problem for agribusiness development in Tamil Nadu is the general failure in coordinating the decisions of private stakeholders (e.g. farmers, traders and agro-processors in the case of the agrifood system) and service providers from the public, private and nongovernmental organizations (NGO) sectors.

Farmers fail to link among themselves through effective producer organizations to be able to undertake joint decisions in production and marketing. Farmers have weak linkages with enterprises and often fail to link effectively to markets because of limited access to relevant market intelligence and inadequate market infrastructure. Farmers are also poorly linked to research and extension activities and they are unable to address their specific technology and knowledge needs that would enable them to innovate into high value production systems.

Entrepreneurs have weak linkages with farmers through contracts and vertical integration arrangements and are distant from consumers because of the absence of organized retail chains. Linkages with service providers are characterized by a lack of confidence particularly in the case of research and extension organizations. The absence of proper certification, quality assurance systems and inadequate infrastructure continues to limit the integration of production with international markets.

Most of service providers agencies fail to link with each other, particularly during implementation of national programs. Links between states and central agencies are often limited. Service providers from the public sector are often unable to provide effective services due to lack of funding, bureaucratic hurdles and the lack of a culture that is client and business oriented. Most NGOs are not used to working in the field of enterprise development and their presence in the agribusiness sector is marginal. Service providers from the private sectors are emerging but are mainly oriented to the needs of corporate clients rather than small and medium enterprises or producer groups that dominate total production.

Past interventions to improve technology, infrastructure and access to credit and markets had modest impact on growth of the sector. The policy assumption that more funds and subsidies will lead to the desired results has proved to be incorrect. Steps for ensuring coordination within each value chain have not been recognized. In spite of subsidies, progress has been slow with few effective value chains emerging and few

stakeholders investing in market infrastructure such as the cooperative sector in Bangalore. The capacity of individuals, groups and service providers to understand and practice value chain principles and management remains low.

For growth to accelerate substantially a new way of thinking about agribusiness development in Tamil Nadu and promoting agribusiness is needed. This new way, and the related business practices that go with it, implies overcoming significant coordination failures. This requires appropriate institutional mechanisms that currently do not exist within current policy setting.

5. Project Rationale

The rationale for the proposed Augmentation of Agricultural Marketing and Agribusiness development in Tamil Nadu through NADP funding is based on the following:

1. The rate of agricultural growth over the past decade has been declining in Tamil Nadu. Agribusiness through its linkages to production, industry and services has the potential to transform the agricultural system into a more dynamic sector.

2. As urbanization and incomes grow, there is a growing demand for a wider range of agrifood products, of higher quality and greater convenience, to use in Tamil Nadu. Meeting this demand requires organized retailing and effective agribusiness supply chains.

3. Agribusiness contributes to the production of higher value products and diversification away from staple foods. Through this diversification and the development of the value chain between producers and consumers, the rural economy benefits from innovation and the creation of non-farm employment.

4. Tamil Nadu has a comparative advantage in a number of agricultural commodities. Increasing integration with global markets and the potential to become a stronger player in agricultural trade requires quality assurance and competitive advantage.

5. The State Government has identified agribusiness development as a strategic priority. In Tamil Nadu, agribusiness has a significant role to play in rural and economic development, and agro-enterprises could be a major source of rural non-farm employment and income.

6. The existing government programs to promote agricultural diversification are broad-based programs with multiple objectives. For agribusiness development to happen a more focused approach is needed to complement the initiatives already covered by the different national programs.

6. Project Strategy

The project will promote the Agri-business practices and models required to support agribusiness development in Tamil Nadu, allowing the sector to contribute to economic growth, particularly in rural areas. New Agri-business practices will be introduced relating to: (i) farmers and entrepreneurs engaging service providers to solve specific technology problems (ii) learning to work together in the value chain (iii) making effective use of market intelligence in decision making; and (iv) making investments in supply chain infrastructure and market places.

7. Project Approach

The project aims at improving business practices needed for agribusiness development in Tamil Nadu. Profit motivations are critical to the improvement of business practices. Rather than starting from a production point of view, stakeholders are encouraged to start from understanding market requirements and opportunities. The project will help stakeholders to access the relevant technologies and knowledge services needed for realizing the identified profit opportunities. Those profit opportunities are realized by working together with other stakeholders in the value chain, and by improving linkages through investments on the existing physical infrastructure.

8. Project Goals

The expected impact of the project will be an increasingly competitive agribusiness sector, informed by the adoption of improved business practices in the Agriculture sector, leading to diversification, higher value added, and higher incomes for farmers, farm workers and entrepreneurs and reduced rural poverty. The expected outcome of the project will be increased benefits (incomes) for farmers, farm workers and entrepreneurs in the selected value chains.

Through the adoption of improved agribusiness practices the project will facilitate the development of a competitive agribusiness sector in Tamil Nadu, promoting diversification and contributing to the transformation of agriculture into a system producing higher value and contributing to the reduction of poverty in rural areas.

The envisaged project's interventions will provide higher value for consumers, value that will be shared as distributed benefits to value chain stakeholders including farmers, entrepreneurs and workers. This will be achieved through activities that improve business practices related to use of market information, investment in technology transfer and knowledge services, development of value chain linkages and investment in market infrastructure. The distributed benefits will provide incentive for ongoing involvement and further innovation from which the sector can extend its development.

The project **impact** is to develop an increasingly competitive agribusiness sector in Tamil Nadu attained through the adoption of improved business practices in the horticultural sector leading to higher value added and higher income of farmers, farm workers and entrepreneurs, particularly women amongst them.

The project **outcome** is increased benefits to farmers, entrepreneurs and workers who are involved in selected value chains in Tamil Nadu

9. Project Components

1. Establishment/ organization of commodity groups for marketing in the State
2. Facilitation of Contract Farming between farmers and bulk buyers in the State
3. Dissemination of Market intelligence
4. Arrangement of Buyers - Sellers Meet
5. Organizing the exposure visits to important markets with in the State and outside the State by commodity groups / farmers and extension functionaries.
6. Strengthening of market extension centre at each district/ block level for capacity building and dissemination of marketing information.

7. Strengthening of selected village shandies
8. Capacity building of farmer's skill
9. Price surveillance
10. Regulated Market Uzhavar Shandies Publicity
11. Market Infrastructure

10. Project Components Description

6.5.1 Establishment/Organization of Commodity Groups for Marketing in the State

i) Project Rationale

According to Government sources, the inefficient marketing system leads to an avoidable waste of around Rs 50,127 crore. A major part of this can be saved by introducing scale and technology in agricultural marketing. Milk and eggs marketing are two success areas of role of scale and technology in marketing. The extent to which the farmer-producers will benefit (out of saving of avoidable waste) depends on the group-marketing practices adopted by the farmers. In this sense, Farmers' Groups/ Commodity Groups need to be promoted for undertaking marketing activities on behalf of the individual members of the group.

Based on the international experience, in view of expanding retail trade, organizing the farmers and equipping the commodity groups can facilitate the aggregation of produce and also enhance the bargaining power of the farmers. The experience in Malaysia, Thailand and Philippines indicated that the retail chains will depend on some intermediary agency for sourcing the produce. If this role can be taken by the farmers' commodity groups, the commodities can move directly to the market without any intermediary. Further, adoption of technology both in production and post-harvest management which is expected to flow from the organized retailers and other research institutions can be efficient through the farmers' commodity groups. There is no single model for organizing the farmers for the whole country. Depending on the strength of the existing farmers' institutions, various models could be adopted. The model of farmers' marketing commodity groups cannot be the same throughout the country. It can

be cooperatives, SHGs or any other form. Therefore it is proposed to organize the commodity groups for marketing of agricultural commodities in Tamil Nadu over the period of four years.

ii) Project Strategy

Formation of commodity groups for group marketing in the State with financial assistance from NADP.

iii) Project Goals

Organizing Group Marketing of major agricultural commodities for realizing higher prices through establishing commodity groups.

iv) Project Components

1. Organising meetings with large number of farmers
2. Identification of willing / co operating Farmers
3. Organising the willing farmers in to groups
4. Periodical meeting with groups and coordinating the activities

v) Project Cost and Financing

Arranging / organising Commodity Groups involves several rounds of meeting with large number of farmers to begin with and finally arriving at about required number of farmers for group cultivation of marketing. To organize these an amount of Rs.20000/- is provided per group. The details are provided in Table 53.

In this project it is proposed to organize 35 commodity groups in groundnut and black gram commodities for marketing of agricultural commodities in Thiruvannamalai distict over the period of four years. This will require resources of Rs. 7,90,000 Lakhs for the period of four years.

vi) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing Committees.

2. Periodical Inspection to be undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

6.5.2. Facilitation of Contract Farming between Farmers and Bulk Buyers in the State

i) Project Rationale

Apart from linking the farmer to consumer through farmers' organizations, another initiative for reducing transaction cost is establishment of direct channel between farmer-processor/bulk consumers, through contract farming (CF). For different reasons, both farmers and farm product processors/distributors may prefer contracts to complete vertical integration. A farmer may prefer a contract which gives access to additional sources of capital, and a more certain price by shifting part of the risk of adverse price movement to the buyer. Farmers also get an access to new technology and inputs, including credit, through contracts which otherwise may be beyond their reach. For a processor or distributor, contracts are more flexible in the face of market uncertainty, make smaller demands on scarce capital resources, and impose less of an additional burden of labour relations, ownership of land, and production activities, on management.

At more macro economic level, contracting can help to remove market imperfections in produce, capital (credit), land, labour, information and insurance markets; facilitate better coordination of local production activities which often involve initial investment in processing, extension etc.; and can help in reducing transaction costs. It has also been used in many situations as a policy step by the state to bring about crop diversification for improving farm incomes and employment. CF is also seen as a way to reduce costs of cultivation as it can provide access to better inputs and more efficient production methods. The increasing cost of cultivation was the reason for the emergence of CF in Japan and Spain in the 1950s and in the Indian Punjab in the early

1990s. Though there are concerns about the ability of the small farms and firms to survive in the changing environment of agribusiness, still there are opportunities for them to exploit like in product differentiation with origin of product or organic products and other niche markets. But, the major route has to be through exploitation of other factors like external economies of scale through networking or clustering and such other alliances like CF.

Marketing tie-ups between farmers and processors or bulk purchasers have special significance for small farmers, who have small marketed surplus and do not have staying power. Such arrangements are being encouraged to help in reducing price risks of farmers and to also expand the markets for farm products. It is to be noted that contract farming of sugarcane is going on for the last more than 50 years in Tamil Nadu. In case of cotton, maize and medicinal plants there are few cases of contract farming. Contract farming in milk, eggs and broiler production is successfully taking place in large scale in Tamil Nadu. The lessons taught in case of sugarcane, cotton and other commodities have to be taken into account during formulation of the project. For this in this NADP programme facilitation contract farming between the traders and producer is proposed.

ii) Project Strategy

Facilitation contract farming between the traders and producer by organising buyers and sellers meet in the block levels.

iii) Project Components

1. Organising meeting with farmers, large scale buying firms, crop insurance companies and banks.
2. Identification of willing / co operating Farmers/ commodity clusters
3. Organising the willing farmers in to groups
4. Arranging the Groups to have contract/agreement with select large scale buyers, banks and crop insurance firms.
5. Periodical watching of contracts and conflict management.

iv) Project Cost and Financing

Arranging / organising Commodity Groups involve several rounds of meeting with large number of farmers and traders, train them in contract specification and monitor them. To organize these an amount of Rs.10,000/- is provided.

In this project it is proposed to organize the meeting on various crops regarding contract farming between farmers and bulk buyers in Thiruvannamalai district for marketing of agricultural commodities in Tamil Nadu over the period of four years. This will require resources of Rs 2,07,000 lakhs for the period of four years. The details are presented in Table. 53.

v) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.

2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business).

6.5.3. Dissemination of Market intelligence

i) Project Rationale

Rural (primary and periodic) Markets are the first contact points of farmers with the market economy, both for selling and buying. As there have been high price differentials many times between the Wholesale Markets and the Rural Markets, there is room for arbitrage which is being exploited by the traders to their advantage. Therefore, it is imperative to make the Wholesale Markets as the price discovery point and the Rural Markets as the price takers with due consideration for transport and other costs. As the Rural Markets have few traders, the tendency to collude among them is high. In the Wholesale Markets, as traders are many, one can expect a fair price. In a country like India with 70 percent of its population living in about 6.25 lakhs villages and depending on agriculture as their main occupation, accurate and timely information about the market prices of the agricultural commodities is of extreme significance.

The most important marketing information is price data. Agricultural price data are based on thousands or millions of transactions, many of them on a small scale, that are taking place every day all over the country. Collecting an adequate sample and making sure that these are representative enough to be useful is not an easy task. As farmers become more market oriented, extension workers need to be in a position to advise them not only on how to grow crops but also on how to market them. Knowledge of produce handling, storage and packaging is also essential. An understanding of costs and margins is essential for all those involved with agricultural marketing. Before any agro-processing venture is started, or before an existing venture decides to expand its product line, an understanding of the market for the planned products is essential. Market research can never guarantee success but it can certainly increase the likelihood that the new business will turn out to be profitable. Hence in this project is included the dissemination of market intelligence provided by the Domestic and Export Market Intelligence Cell, Centre for Agricultural and Rural Development Studies, Tamil Nadu Agricultural University, Coimbatore and other agencies.

ii) Project Strategy

Dissemination of Market intelligence provided by the Domestic and Export Market Intelligence Cell, Centre for Agricultural and Rural Development Studies, Tamil Nadu Agricultural University, Coimbatore and other agencies through different mass media.

iii) Project Components

1. Procurement of market intelligence reports and
2. Dissemination of Market intelligence to all the Stake holders through different mass media.

iv) Project Cost and Financing

In this project it is proposed to disseminate Market intelligence of agricultural commodities to all the Stake holders through different mass media in Thiruvannmalai district over the period of four years. This will require resources of Rs.5,06,000 Lakhs for the period of four years. The details are presented in Table.53.

v) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.

2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

6.5.4. Arrangement of Buyers - Sellers Meet

i) Project Rationale

Indian farmers usually produce diverse goods and services to meet the family requirements. Marketable surpluses, if any, are disposed off immediately after harvest to meet the cash requirements when prices are generally depressed and often to specific buyers who have provided credit.

There is limited market for all goods and services produced by the farmers in the vicinity. In contrast, quite often, they buy goods and services in lean period when prices are generally higher. Therefore, the nature, degree and the complexity of the problems faced vary among the farmers, regions, and markets.

Several alternatives are available within each market for the farmers. Critical evaluation of the alternatives is important in deciding a profitable set to determine the overall profitability of the farms.

The most important aspect of the agricultural market intelligence is to create awareness about the demand and quality requirements for various agricultural produce among farmers and also to build knowledge on the availability of various agricultural commodities among the traders.

There is increasing pressure on all segments of the agriculture produce economy to respond to the challenges that the global markets pose in the new post: WTO world trade order.

Buyers and sellers meet functions as platform linking agribusiness community namely farmers, traders, commission agents, agricultural processed food organizations, millers, machinery manufacturers in an egalitarian exchange of ideas and materials.

It is beautifully explained as a business partnership between producers and buyers to enhance their knowledge for mutual gain.

Arrangement of these meetings brings together the two important aspect of success i.e. technology and human resources. Besides display of agricultural commodities through exhibitions, the meet aspect covers all the latest market related interventions and provides need based solutions to farmers through direct contact with experts.

ii) Project Cost and Financing

In this project it is proposed to arrange for seven buyers sellers meet in Thiruvannamalai district over the period of four years. This will require resources of Rs.1,64,000 Lakhs for the period of four years. The details are presented in Table 53.

6.5.5. Organizing the Exposure Visits to Important Markets with in the State and Outside the State by Commodity Groups / Farmers and Extension Functionaries

i) Project Rationale

The goal of four per cent growth in agriculture can only be achieved by increasing productivity per unit of land. Considering the costs and constraints of resources such as water, nutrients and energy, the genetic enhancement of productivity should be coupled with input use efficiency. This can be made possible only by creation and utilization of new and improved technology. Since new technology creation and development is a slow process, for attaining the desired 4 per cent growth during the XIth Plan period, we will

have to rely more on known and proven technology. Agriculture research system claims to have a large number of promising technologies to achieve high growth and promote farming systems that improve natural resource base. However, these are not seen at farmers' fields at large. Visit to other areas, where new technologies are implementing successfully i.e., exposure visits is an important thing to enlighten the farmers for implementing those technologies in their areas also. It is easy to know the new technology through demonstration. Farmers will be selected to visit different places within the State where the technologies are well adopted. Therefore it is proposed to organize the exposure visit to important markets with in the state and out side the state by commodity groups / farmers and extension functionaries in the state for marketing of agricultural commodities in Tamil Nadu over the period of four years.

ii) Project Strategy

Organizing the exposure visits to important markets within the State and outside the State by commodity groups / farmers and extension functionaries.

iii) Project Goals

Organizing the exposure visit to important markets within the State and outside the State by commodity groups / farmers and extension functionaries in the state for marketing of agricultural commodities in Tamil Nadu over the period of four years from NADP funding.

iv) Project Components

1. Organizing the exposure visit to important markets within the State by commodity groups / farmers

2. Organizing the exposure visit to important markets outside the State by commodity groups / farmers

3. Organizing the exposure visit to important markets within the State and outside the State by extension functionaries

v) Project Cost and Financing

Visit of important markets, where new opportunity for marketing of the commodity and consumer preference i.e., exposure visits SAFAL market Bangalore is an important thing to enlighten the farmers for marketing their produce as well as consumer preference. It is easy to know the marketing of the commodity through observation and participation in the well developed markets. Farmers will be selected to visit different market places within the State where the new opportunities for marketing of commodities exist. This will require resources of Rs.11,69,300 Lakhs for the period of four years. The details are presented in Table 53.

vi) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.

2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

6.5.6. Strengthening of Market Extension Centre at each District/ Block Level for Capacity Building and Dissemination of Marketing Information

i) Project Rationale

Over the last few years mass media has seen a phenomenal growth in the country both in terms of reach and advance in technology. This medium has not been exploited to its full potential for the purpose of agricultural extension specifically market led extension. A concerted and well-coordinated effort now needs to be made to use the electronic media in the Extension strategy by strengthening infrastructure facility. Market led Extension is now becoming more diversified, technology intensive, knowledge oriented and more demand-driven. This requires the extension workers at the cutting edge level to be master of so many trades, which is neither practicable nor possible. Use of IT in extension enables the extension workers to be more effective in meeting the

information needs of farmers. The growing Information and communication technology is used widely in the entire developmental sector except in agricultural sector. Use of interactive multimedia and such other tools will help the extension workers to serve the farmers better. Similarly, extension systems have to utilize the existing print and electronic mass media for faster dissemination of information to farmers. The technological advancement in telecommunication and space technology has to be fully tapped for devising appropriate programs for farmers. Hence there is an urgent need to strengthening of market extension centre at each district/ block level with LCD projectors and lap top computer including internet facilities.

ii) Project Strategy

Strengthening of market extension centre at each district/ block level for capacity building and dissemination of marketing information.

iii) Project Goals

Strengthening of market extension centre at each district/ block level for capacity building and dissemination of marketing information in Tamil Nadu over the period of four years from NADP funding.

iv) Project Components

Strengthening of market extension centre at each district/ block level.

v) Project Cost and Financing

Over the last few years mass media has seen a phenomenal growth in the country both in terms of reach and advance in technology. This medium has not been exploited to its full potential for the purpose of agricultural extension specifically market led extension. A concerted and well-coordinated effort now needs to be made to use the electronic media in the Extension strategy by strengthening infrastructure facility. In this project it is proposed to strengthening market extension centre in Thiruvannamalai district over the period of four years. This will require resources of Rs.5,00,000 Lakhs for the period of four years. The details are presented in Table 53.

vi) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.

2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

6.5.7. Capacity Building of Farmers' Skill

i) Project Rationale

Apart from pursuing policies and creating formal organizations to intervene in agricultural marketing, governments have adopted several programmes of providing market support services. It appears that the types of programmes initiated cover a very wide spectrum of possible solutions to help small and marginal farmers. However, the benefits have not adequately reached the intended target groups. The main reason is that agricultural marketing and business related aspects of training, education and research have remained neglected in our country. The role of the market as knowledge and information exchange amongst the converging farmers needs to be appreciated and harnessed. Farmers get benefit from deregulation of markets, minimum guaranteed price scheme, contract farming, and crop/income insurance, only to the extent they organize in marketing groups, self-help groups, cooperatives or companies and learn skills suited to the new marketing environment. Understanding quality standards (including FAQ), learning the terms of contract and insurance, and choosing and preparing the produce for the market are going to be essential skills for farmers. There is a need for greater synergy between extension services and market. State Marketing Departments and Boards, APMCs, Krishi Vigyan Kendras (KVKs), Marketing Cooperatives, NGOs and PRIs should pay increasing attention to train the farmers in marketing related skills. All stakeholders in the Supply Chain (i.e. from farmers to consumers) should be exposed to the following characteristics and complexities of the marketing system to make it more efficient. Hence in this project the following training programmes are proposed with budget requirement of Rs. 13,80,000 Lakhs.

- Training on Warehousing and storage
- Training on Grading
- Training on Market intelligence
- Training on Post Harvest Management of selected commodities
- Massive awareness programme is to be undertaken to demystify the commodity futures markets and enable the farmers to enter into futures contract so as to insure their price risk.
- Training to farmers on selected commodities for Export Promotion.

ii) Project Strategy

Training will be organized for farmers / commodity groups on Warehousing and storage, Grading, Market intelligence, Post Harvest Management of selected commodities and awareness programme is to be undertaken to demystify the commodity futures markets and enable the farmers to enter into futures contract so as to insure their price risk in the state with financial assistance from NADP.

iii) Project Components

Organising training to farmers / commodity groups on Warehousing and storage, Grading, Market intelligence, Post Harvest Management of selected commodities and awareness programme is to be undertaken to demystify the commodity futures markets and enable the farmers to enter into futures contract so as to insure their price risk.

iv) Project Cost and Financing

In this project it is proposed to organize about fourty trainings under Capacity Building of Farmers Skill titles for marketing of agricultural commodities inThiruvannamalai district over the period of four years. This will require resources of Rs.4,60,000 Lakhs for the period of four years. The Details are presented in Table 53.

v) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.
2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

6.5.8. Establishment of Price Surveillance Mechanism through NADP Funding

i) Rationale

Collection of real time data in the open markets for major agricultural commodities and further analysis is essential for forecasting of prices well in advance of the sowing season so that farmers can take their sowing decisions on a scientific basis. This will enhance the income of the farmers which is one of the objectives of the project.

ii) Project Components

This involves collection of data on prices of different commodities in the unregulated markets in the notified area. This entails collection of time series and current/real time data which will be sent to Domestic and Export Market Intelligence Cell of Tamil Nadu Agricultural University, for processing and further analysis to forecast prices of major agricultural commodities.

iii) Project Cost and Financing

In this project it is proposed to collect data at a minimum interval of one month from major assembly markets on a continuous basis in Thiruvannamalai district over the period of four years. This will require resources of Rs 82,000 for the period of four years. The details are presented in Table 50.

iv) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.
2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

6.5.9. Strengthening of Regulated Market and Uzhavar Shandies Publicity

i) Rationale

Arrivals to market yards of regulated markets is only about 15 per cent of the marketed surplus in Tamil Nadu. Similarly sale through Uzhavar Shandies is also limited in case of fruits and vegetables. Hence it is necessary to have publicity programme on the benefits of sale through regulated markets and Uzhavar Shandies so that the net price realized by the farmers could be increased. To achieve this publicity and propaganda programmes will be undertaken in this district for the next four years.

ii) Project Components

Hoardings, publicity through F.M. radio, posters, folders, wall paintings and village cultural programmes will form the components.

iii) Project Cost and Financing

In this project it is proposed to have the publicity programmes with the above components in this district with a financial outlay of Rs.23,00,000 Lakhs over the period of four years. The details are presented in Table 50.

iv) Reporting

1. Quarterly progress reports to be sent to the Deputy Director (Agricultural Marketing and Agri Business) by the concerned Agricultural Officer (Agricultural Marketing and Agri Business) and Secretaries of Marketing committees.

2. Periodical Inspection undertaken by the Deputy Director (Agricultural Marketing and Agri Business)

11. Project Cost

The total cost for development of agricultural marketing so as to increase the profitability of farmers would be Rs. 76.293 Lakhs for this district for the next four years.

12. Implementation

Department of Agricultural Marketing and Agribusiness, Government of Tamil Nadu will be the implementing agency for proposed project. The Deputy Director of Agricultural Marketing along with the team of Officials and the Secretary of District Market Committees and team of Officials of Market Committee and Regulated Markets will be implementing the project jointly.

13. Project Performance Monitoring System

Outcomes of the project will be measured against initial baseline data which will provide a benchmark for future interventions. The details of each monitoring and evaluation activity will be refined and finalized during the first six months of the project, as a joint effort of the management of the project, the stakeholders and technical assistance by the Performance Monitoring Evaluation unit.

14. Sustainability

Project sustainability refers to the continuation of benefits generated by the project even after project completion. Through the project activities, stakeholders will improve their capacity in identifying market opportunities and taking sound business decisions regarding investment, production and marketing. The improved capacity will result in the emergence of profitable enterprises able to adapt better to market conditions and seize existing opportunities and benefits; the enterprises and the benefits will continue to exist even after the completion of the project. However, the success of the project also depends on the sustainability of some of the institutional mechanisms (for example DEMIC) introduced by the project. In some cases, the institutional support will have to be continued for the benefits to continue to flow after the completion of the project and result in the models and practices introduced by the project to be replicated by other stakeholders in the agricultural sector in the state.

Table 50. Details of Recommended Interventions of Agricultural Marketing and Agri Business

(Rs in lakhs)

Components wise Marketing Activities in Thiruvannamalai District													
Components	**2009**			**2010**			**2011**			**2012**			
	Unit cost	**Physical**	**Financial**	**Unit cost**	**Physical**	**Financial**	**Unit cost**	**Physical**	**Financial**	**Unit cost**	**Physical**	**Financial**	**Total**
Commodity group formation													
Groudnut	20000	5	100000	22000	5	110000	24000	5	120000	26000	0	0	330000
Blackgram	20000	5	100000	22000	5	110000	24000	5	120000	26000	5	130000	460000
Market Intelligence dissemination													
Groundnut Training	10000	5	50000	11000	5	55000	12000	5	60000	13000	5	65000	230000
Paddy Training	10000	5	50000	11000	5	55000	12000	5	60000	13000	5	65000	230000
Purchase of marketing materials	10000	1	10000	11000	1	11000	12000	1	12000	13000	1	13000	46000
Facilitation of contract farming	15000	3	45000	16500	3	49500	18000	3	54000	19500	3	58500	207000
Trainings													
Trainings	10000	30	300000	11000	30	330000	12000	30	360000	13000	30	390000	1380000
Value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Min PH Loss Trainings	10000	7	70000	11000	7	77000	12000	7	84000	13000	7	91000	322000
Export promotion	10000	4	40000	11000	4	44000	12000	5	60000	13000	5	65000	209000
Exposure visit to markets	20000	1	20000	22000	1	22000	24000	1	24000	26000	1	26000	92000

Table 50. Contd… **(Rs in lakhs)**

Components	2009			2010			2011			2012			
	Unit cost	Physical	Financial	Unit cost	Physical	Financial	Unit cost	Physical	Financial	Unit cost	Physical	Financial	Total
Visit to National Markets	150000	1	150000	165000	1	165000	181500	2	363000	199650	2	399300	1077300
Arrangement of buyer seller meetings	20000	1	20000	22000	2	44000	24000	2	48000	26000	2	52000	164000
Streng. of market extension centre	250000	2	500000	275000	0	0	300000	0	0	325000	0	0	500000
Streng. of village shandies	0	0	0	0	0	0	0	0	0	0	0	0	0
Market price surveillance	10000	1	10000	11000	2	22000	12000	2	24000	13000	2	26000	82000
Publicity - regulated market	**500000**	**1**	**500000**	**550000**	**1**	**550000**	**600000**	**1**	**600000**	**650000**	**1**	**650000**	**2300000**
Total	**0**	**72**	**1965000**	**0**	**72**	**1644500**	**0**	**74**	**1989000**	**0**	**69**	**2030800**	**7629300**

Abstract Budget

Table 51. Details of Over all Budget of Marketing Sector

(Rs. in lakhs)

Year	Total
2009	19.65
2010	16.445
2011	19.89
2012	20.308
Total	**76.293**

6.6. Water Resource Organization

Introduction

The Government of India has launched a National Agriculture Development Programme (NADP) / Rashtriya Krishi Vikas Yojana (RKVY) based on the recommendation of the National Development Council as resolved in its 53rd Meeting held on 29.5.2007. The RKVY aims at achieving four per cent annual growth in the Agricultural Sector during the 11th Plan period by ensuring a holistic development of agriculture and allied sectors. Its main aim is to develop the agricultural products in a profitable manner and improving the yield of the produce by conserving soil, water and adopting latest technologies in agriculture and its allied sector. The gap (in irrigated area) in the produce area has to be bridged and the total area under cultivation should be brought under use by making use of the latest technologies in agriculture and also stabilisation of the existing irrigable area is one of the aim of this scheme. Tiruvannamalai District is one of the most backward District in Tamil Nadu and this district also included under this scheme.

The total no. of tanks and anicuts under the control of Public Works Department in the jurisdiction of Middle Pennaiyar Basin Division, Tiruvannamalai are furnished in Table 52.

Table 52. Details of Tanks and Anicuts under the Department of Water Resource Organisation

(Area in hectares)

Sl. No.	Description.	No. of Tanks.	Ayacut
1)	Non System Minor Irrigation Tanks.	412	32482
2)	Cheyyar Anicut System Tanks.	147	7718
3)	Thandarai Anicut System Tanks.	10	573
4)	Tanks & Direct Ayacut under Sathanur Left Bank Canal.	30 + Direct Ayacut.	7017
5)	Minor Irrigation Anicuts.	75	1888
	Total:	**674**	**49678**

Source: Records of Assistant Executive Engineer, Tiruvannamalai

Under this Rashtriya Krishi Vikas Yojana Programme, it has been planned to take up the improvements and renovation of anicuts, tanks and supply channels to the total value of Rs.3310.70 Lakhs, in the five year programme.

6.7.1 Main Objectives of the Scheme

1) To increase the over all agricultural production under the selected minor irrigation tanks by conserving water and increasing the irrigable area and productivity.

2) To improve the living standard of farmers, especially small farmers by strengthening the minor irrigation tanks. The economic and social aspects of the farmers will also be improved. It will also help in preventing people migrating from their own places to metropolitan cities for search of job and income.

3) The Ground water potential in the tank would increase whichin turn will be useful for continued irrigation in the ayacut even in the dry conditions of the tank through well irrigation and also improving the drinking water supply for the villagers.

6.7.2. Constraint Analysis

Total population of Tiruvannamalai District was about 21,81,853. Out of this, the agricultural population accounted for 3,57,117. Hence, Agriculture is the main

occupation of the people of this District. One of the major problems faced in the Agriculture is the water scarcity for irrigation purposes. Even though nearly 74,000 hectares has been registered as wet lands in this district, due to poor maintenance of the various tanks and channels, the rain water fails to reach the tanks. Further due to heavy girth of vegetations and siltation in the tanks, the storage capacity of the tanks also considerably reduced. The tank bunds were also below standard in width and height. The tank sluices and weirs were leaky.

Therefore, it is important to renovate the existing anicuts and tanks and channels under these anicuts on massive scale to ensure full conservation of the water during the rainy season and to deliver the water through sluices without any wastage to the fields.

6.7.3. Rehabilitation of Anicuts

Details of recommended interventions for rehabilitation of Anicuts along with the costs are furnished in Table 53.

Table 53. Details of Recommended Interventions of Anicuts with Costs

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
1)	Rehabilitation of Nammiyandal Anicut constructed across Aliyar river in Thandarampattu Taluk.	55.06	1) Repairs to Anicut Bodywall and apron. 2) Desilting of Channel.	1	9.00
2)	Improvements and Rehabilitation of Moraiyar Anicut (constructed across Moraiyar River) and its tanks in Chengam Taluk.	106.22	1) Removal of Shoals in front of Anicut. 2) Repairs to bodywall. 3) Repairs to the apron. 4) Desilting of Supply channels and renewal of shutters.	1	10.00
3)	Improvements and rehabilitation of Bhee-manadhi Anicut and its tanks constructed across Bheemanadhi in Chengam Taluk.	190.69	- do -	1	12.00

Table 53. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
4)	Improvements and rehabilitation of Korattampattu Anicut and its tanks constructed across Bheemanadhi in Chengam Taluk.	54.81	1) Removal of Shoals in front of Anicut. 2) Repairs to bodywall. 3) Repairs to the apron. 4) Desilting of Supply channels and renewal of shutters.	1	10.00
5)	Improvements and Rehabilitation of Aliabad Anicut (constructed across Kamandalar River) and its tanks in Polur	1050.60	- do -	1	70.00
6)	Rehabilitation of Vediyappankoil Anicut (constructed across C.Sorpanandal Tank Surplus Course) and supply Channel and dividing dam in Chengam Taluk.	74.97	1) Improvements to Anicut. 2) Improvements to Dividing dam. 3) Desilting of Supply Channel.	1	10.00
7)	Rehabilitation of Kuppanthangal Anicut (constructed across Melpennathur Tank Surplus Course) and its supply channel and Dividing dam in Chengam Taluk.	52.46	- do -	1	10.00
8)	Rehabilitation of Mampattu Anicut (constructed across Manjalar River) in Polur Taluk.	98.38	1) Repairs to bodywall. 2) Repairs to apron. 3) Desilting of Supply Channel.	1	10.00
9)	Rehabilitation of Kamakkur Anicut (constructed across Kamandalar) and its supply channel in Arni Taluk.	429.16	1) Repairs to bodywall. 2) Repairs to apron. 3) Repairs to Supply Channel.	1	27.00
10)	Rehabilitation of K.N. Anicut (constructed across Kamandala Naganathi) and its supply channels and tanks in Arni Taluk.	1362.60	1) Repairs to operation platform. 2) Repairs to apron. 3) Repairs to supply sluice. 4) Repairs to Supply channel.	1	87.00

Table 53. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
11)	Rehabilitation of Kilanaikarai Anicut (constructed across olaiyar river) in Tiruvannamalai Taluk.	20.17	1) Repairs to bodywall & apron. 2) Improvements to solid apron. 3) Desilting of supply channel and construction of retaining wall.	1	10.00
12)	Rehabilitation of Melanaikarai Anicut (constructed across olaiyar river) in Tiruvannamalai Taluk.	20.18	- do -	1	10.00
13)	Rehabilitation of Endal Anicut (constructed across olaiyar river) in Tiruvannamalai Taluk.	23.00	- do -	1	10.00
14)	Improvements and rehabilitation of Bondai Anicut (constructed across Varattar River) in Thandarampattu Taluk	74.33	1) Repairs to Anicut. 2) Forming Flood Bank. 3) Construction of retaining wall.	1	30.00
15)	Improvements and rehabilitation of Varattar Anicut (constructed across varattar river) in Thandarampattu Taluk	120.99	- do -	1	30.00
16)	Rehabilitation of Nagarmedu Anicut (constructed across Suganathi) in Vandavasi Taluk.	129.98	1) Repairs to siphon & Anicut. 2) Desilting and repairs to supply channel.	1	20.00
	Total	**3863.60**		**16**	**365.00**

6.7.4 Rehabilitation of Tanks and Supply Channels

The details of recommended intervention for rehabilitation of tanks and supply channel in Thiruvannamalai district are furnished in Table 54.

Table 54. Details of Recommended Interventions for Tanks and Supply Channels

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
1)	Rehabilitation of Nadupattu tank in Tiruvannamalai Taluk	27.34	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4)Improvements of field channels.	1	9.00
2)	Rehabilitation of Aradapattu tank in Tiruvannamalai Taluk	14.33	- do -	1	8.00
3)	Rehabilitation of Kattampoondi tank in Tiruvannamalai Taluk	65.67	- do -	1	10.00
4)	Rehabilitation of Nariyapattu tank in Tiruvannamalai Taluk	19.34	- do -	1	10.00
5)	Rehabilitation of Kallottu tank in Tiruvannamalai Taluk	11.00	- do -	1	8.00
6)	Rehabilitation of Alligon-dapattu Tank in Tiruva-nnamalai Taluk.	6.25	- do -	1	7.00
7)	Rehabilitation of Thaliyampallam tank in Tiruvannamalai Taluk	62.70	- do -	1	10.00
8)	Rehabilitation of Athipadi tank in Tiruvannamalai Taluk	10.78	- do -	1	9.50
9)	Rehabilitation of M.N. Palayam Tank in Tiruvannamalai Taluk	51.71	1) Reconstruction of Sluice. 2) Repairs to Weir. 3) Improvements to Field Channel.	1	15.00
10)	Rehabilitation of Devanampattu Tank in Tiruvannamalai Taluk.	55.37	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Improvements to Field channel.	1	10.00
11)	Rehabilitation of Porkunam Tank in Tiruvannamalai Taluk.	61.92	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Repairs to Weir. 4) Improvements to Field channel.	1	15.00

Table 54. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
12)	Rehabilitation of Melpathurai Tank in Tiruvannamalai Taluk.	107.68	1) Strengthening the bund by desilting of tank. 2) Improvements to Field Channel.	1	10.00
13)	Rehabilitation of Karkonam Tank in Tiruvannamalai Taluk.	70.01	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Repairs to Weir. 4) Improvements to Field channel.	1	15.00
14)	Rehabilitation of Thenkarumbalur tank in Chengam Taluk	65.83	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Repairs to Weir. 4) Improvements to Field channel.	1	10.00
15)	Rehabilitation of Kottaiyur tank in Chengam Taluk	34.57	- do -	1	10.00
16)	Rehabilitation of Vana-puram tank in Chengam Taluk	24.25	- do -	1	10.00
17)	Rehabilitation of Edathanur tank in Chengam Taluk	24.50	- do -	1	6.50
18)	Rehabilitation of Kolundampattu tank in Chengam Taluk	52.06	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Repairs to Weir.	1	10.00
19)	Rehabilitation of Kayampattu tank in Chengam Taluk	57.89	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply channel.	1	12.00
20)	Rehabilitation of Veeranandal Chitheri in Chengam Taluk	41.40	- do -	1	9.00
21)	Rehabilitation of Vasudevanpattu tank in Chengam Taluk	41.93	- do -	1	10.00
22)	Rehabilitation of Allinagar tank in Polur Taluk	57.09	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Repairs to Weir. 4) Improvements to Field channel.	1	6.00

Table 54. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
23)	Rehabilitation of Karapoondi tank in Polur Taluk	146.09	- do -	1	18.00
24)	Rehabilitation of Thirumalai tank in Polur Taluk	105.62	- do -	1	12.00
25)	Rehabilitation of Pillur tank in Polur Taluk.	99.15	- do -	1	11.00
26)	Rehabilitation of Adanur Tank in Arni Taluk.	127.48	- do -	1	10.00
27)	Rehabilitation of Mullandram Chitheri in Arni Taluk	49.70	- do -	1	5.00
28)	Rehabilitation of Nesal Tank in Arni Taluk.	64.70	- do -	1	8.00
29)	Rehabilitation of Velleri Tank in Arni Taluk.	137.18	- do -	1	12.00
30)	Rehabilitation of Vetti-yanthozhuvam Tank in Arni Taluk.	61.03	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Repairs to Weir. 4) Improvements to Field channel.	1	8.00
31)	Rehabilitation of Agaram Big Tank in Arni Taluk.	87.84	- do -	1	9.00
32)	Rehabilitation of Ariyalam Big Tank in Arni Taluk.	140.74	- do -	1	15.00
33)	Rehabilitation of Thatchur Big Tank in Arni Taluk.	269.39	- do -	1	30.00
34)	Rehabilitation of Korukathur Tank in Cheyyar Taluk.	35.61	- do -	1	15.50
35)	Rehabilitation of Kaduganur Chitheri in Cheyyar Taluk.	26.30	- do -	1	6.00
36)	Rehabilitation of Keelapandai Tank in Cheyyar Taluk.	91.46	- do -	1	12.00
37)	Rehabilitation of Kazhiyur Chitheri in Cheyyar Taluk.	36.42	- do -	1	10.00

Table 54. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
38)	Rehabilitation of Veerambakkam Chitheri in Cheyyar Taluk.	33.58	- do -	1	12.50
39)	Rehabilitation of Alathur Chitheri in Cheyyar Taluk.	70.81	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Desilting of Supply Channel.	1	15.00
40)	Rehabilitation of Alathur Big Tank in Cheyyar Taluk.	93.06	1) Strengthening the bund by desilting of tank. 2) Desilting of Supply Channel.	1	14.00
41)	Rehabilitation of Vengodu Tank in Cheyyar Taluk.	82.94	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice.	1	15.00
42)	Rehabilitation of Kilkolathur Tank in Cheyyar Taluk.	77.70	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	20.00
43)	Rehabilitation of Thenilluppai Big Tank & Chitheri in Cheyyar Taluk.	36.82	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel	1	10.00
44)	Rehabilitation of Kovilur Tank in Cheyyar Taluk.	133.14	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel	1	30.00
45)	Rehabilitation of Nallalam Tank in Cheyyar Taluk.	59.49	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel	1	15.00
46)	Rehabilitation of Arasur Pallithangal Tank in Cheyyar Taluk.	8.90	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel	1	4.00

Table 54. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
47)	Rehabilitation of Palanjur Tank in Cheyyar Taluk.	33.18	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	9.00
48)	Rehabilitation of Mummuni Big Tank in Vandavasi Taluk.	96.32	- do -	1	16.00
49)	Rehabilitation of Athiyanur Tank in Vandavasi Taluk.	70.80	- do -	1	15.00
50)	Rehabilitation of Rama-samudram Chitheri in Vandavasi Taluk.	43.22	- do -	1	16.00
51)	Rehabilitation of Nallery Tank in Vandavasi Taluk.	40.87	- do -	1	16.00
52)	Rehabilitation of Kilvelliyur Tank in Vandavasi Taluk.	78.39	- do -	1	15.00
53)	Rehabilitation of Vizhamangalam Tank in Vandavasi Taluk.	46.18	- do -	1	12.00
54)	Rehabilitation of Vallam Chitheri in Vandavasi Taluk.	52.98	- do -	1	15.00
55)	Rehabilitation of S.Katteri Tank in Vandavasi Taluk.	54.96	- do -	1	15.00
56)	**Ex- zamin tanks** Rehabilitation of Neelanthangal tank in Tiruvannamalai taluk.	15.94	1) Strengthening the bund by desilting of tank. 2) Repairs to Sluice & weir 3) Desilting of supply channel 4) Improvements to field channels.	1	6.00
57)	Rehabilitation of Agaram Paranthangal tank in Tiruvannamalai taluk.	9.36	- do -	1	5.00
58)	Rehabilitation of Gudalur big tank in Tiruvan-namalai taluk.	22.02	- do -	1	4.00

Table 54. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
59)	Rehabilitation of Kallayee babam tank in Tiru-vannamalai taluk.	11.15	- do -	1	5.00
60)	Rehabilitation of Otteri tank in Polur Taluk.	28.86	- do -	1	5.00
61)	Rehabilitation of Rajammapuram tank in Polur Taluk.	32.10	1) Strengthening the bund by desilting of tank 2) Repairs to Sluice & weir 3) Improvements to field channels.	1	5.00
62)	Rehabilitation of Krishnapuram big tank in Polur Taluk.	35.16	- do -	1	5.00
63)	Rehabilitation of Woddanthangal tank in Arni Taluk.	9.50	1) Strengthening the bund by desilting of tank 2) Repairs to Sluice & weir 3) Improvements to supply channel 4) Improvements to field channels.	1	5.00
64)	Rehabilitation of Naval pakkam big tank in Vandavasi Taluk.	40.14	1) Strengthening the bund by desilting of tank 2) Repairs to Sluice & weir 3) Improvements to field channels.	1	7.00
65)	Rehabilitation of Jagannathapuram big tank in Vandavasi Taluk.	12.33	- do -	1	6.00
	Total:	**3772.23**		**65**	**719.00**

6.7.5. Recommended Intervention of Tanks and Supply Channel

The details of recommended interventions of tanks and supply channels along with costs are furnished in Table 55.

Table 55. Details of Recommended Interventions for Tanks and Supply Channel

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
1)	Rehabilitation of Chengam Anicut constructed across Cheyyar river and its tanks in Chengam Taluk.	491.62	1) Repairs to body wall and apron of anicut. 2) Strengthening of tank bund by desilting of tank. 3) Reconstruction of Sluice. 4) Desilting and Improvements to supply channel.	1	32.20
2)	Rehabilitation of Kottakulam Anicut constructed across Cheyyar river and its tanks in Chengam Taluk.	542.37	1) Repairs to body wall and apron of anicut. 2) Strengthening of tank bund by desilting of tank. 3)Repairs to surplus weir & sluice. 4)Desilting of supply channel.	1	33.90
3)	Rehabilitation of Kannamangalam Anicut constructed across Nagananadhi river in Arni Taluk.	304.33	1) Repairs to Anicut body wall. 2) Repairs to apron. 3) Removal of shoal.	1	18.60
4)	Rehabilitation of Ulundai Anicut constructed across Suganathi and Ulundai tank in Vanda-vasi Taluk.	145.44	1) Repairs to apron. 2) Renewal of shutters. 3) Repairs and desilting of supply channel 4) Strengthening of tank bund by desilting of tank. 5) Reconstruction of sluice. 6) Repairs to weir.	1	21.00

Table 55. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Work	Estimated Amount
5)	Improvements and Rehabilitation of Thenmudiyanur New Anicut constructed across Aliyar river in Thandarampattu Taluk	79.15	Repairs to Anicut body wall, apron and Desilting channel.	1	10.00
6)	Improvements and Rehabilitation of Eraiyur Anicut constructed across Cheyyar river and its tanks in Chengam Taluk.	728.29	Repairs to Anicut body wall, apron and Desilting channel.	1	41.00
7)	Improvements and Rehabilitation of Alathur Anicut constructed across Cheyyar river and its tanks in Chengam Taluk	973.89	Repairs to Anicut body wall, apron and Desilting channel.	1	52.00
	Improvements and Rehabilitation of Athimur Anicut constructed across Manjalar river in Polur Taluk.	49.19	Repairs to Anicut body wall, apron and Desilting channel.	1	10.00
9)	Improvements and Rehabilitation of Periagaram Anicut constructed across Manjalar river and its tanks in Polur Taluk.	123.89	Repairs to Anicut body wall, apron and Desilting channel.	1	10.00
10)	Improvements and Rehabilitation of Elathur Anicut constructed across Mirugundathi river and its tanks in Polur Taluk.	113.76	Repairs to Anicut body wall, apron and Desilting channel.	1	10.00
	Total	**3551.93**		**10**	**238.70**

6.7.6 Rehabilitation of Tanks and Supply Channel

The proposal for rehabilitation of tanks and supply channels for the years 2009-10 in Thiruvannamalai district along with costs is furnished in Table 56.

Table 56. Details of Recommended Interventions for Tanks and Supply Channel

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
1)	Rehabilitation of Su. Andapattu tank in Tiruvannamalai Taluk	32.69	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Improvements to field channels.	1	10.00
2)	Rehabilitation of Kolakudi tank in Tiruvannamalai Taluk	42.55	- do -	1	8.00
3)	Rehabilitation of Periyakallapadi tank in Tiruvannamalai Taluk	56.85	- do -	1	10.00
4)	Rehabilitation of Pavupattu tank in Tiruvannamalai Taluk	19.75	- do -	1	10.00
5)	Rehabilitation of Pariyampattu tank in Tiruvannamalai Taluk	17.49	- do -	1	8.00
6)	Rehabilitation of Navampattu tank in Tiruvannamalai Taluk	20.47	- do -	1	8.00
7)	Rehabilitation of Thachampattu tank in Tiruvannamalai Taluk	13.20	- do -	1	8.00
8)	Rehabilitation of Kandiyankuppam tank in Tiruvannamalai Taluk	17.17	- do -	1	10.00
9)	Rehabilitation of Sora-kulathur big tank in Tiruvannamalai Taluk	106.86	- do -	1	10.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
10)	Rehabilitation of Salaya-nur tank in Tiruvanna-malai Taluk	73.25	- do -	1	10.00
11)	Rehabilitation of Narthampoondi tank in Tiruvannamalai Taluk	170.00	- do -	1	8.00
12)	Rehabilitation of Nelli-medu tank in Tiruvan-namalai Taluk	48.55	- do -	1	7.00
13)	Rehabilitation of Kungi-linatham tank in Chengam Taluk	21.73	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Improvements to field channels.	1	10.00
14)	Rehabilitation of Allappanur tank in Chengam Taluk	18.74	- do -	1	8.00
15)	Rehabilitation of Agarampallipattu tank in Chengam Taluk	14.82	- do -	1	9.50
16)	Rehabilitation of Melsirupakkam tank in Chengam Taluk.	67.95	- do -	1	15.00
17)	Rehabilitation of Melpennathur tank in Chengam Taluk.	41.86	- do -	1	10.00
18)	Rehabilitation of Nallur tank in Chengam Taluk.	40.58	- do -	1	10.00
19)	Rehabilitation of Melapunjai tank in Chengam Taluk.	52.80	- do -	1	10.00
20)	Rehabilitation of Matta-piraiyur Tank in Polur Taluk.	41.68	1) Strengthening of Tank bund by desilting. 2) Improvements to Field Channel.	1	10.00
21)	Rehabilitation of Appedu Tank in Polur Taluk.	44.26	1) Strengthening of Tank bund by desilting. 2) Repairs to sluice.	1	5.00
22)	Rehabilitation of Chey-yanandal Tank in Polur Taluk.	41.57	- do -	1	5.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
23)	Rehabilitation of Ran-tham Tank in Polur Taluk.	58.29	- do -	1	7.00
24)	Rehabilitation of Kara-poondi Tank in Polur Taluk.	145.92	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Sluice. 3) Desilting of Supply Channel. 4) Improvements to field Channel.	1	10.00
25)	Rehabilitation of Kuralpakkam Tank in Polur Taluk.	92.97	- do -	1	10.00
26)	Rehabilitation of Alliya-lamangalam tank in Polur Taluk.	112.37	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Weir. 3) Improvements to field channels.	1	10.00
27)	Rehabilitation of Thiru-malai tank in Polur Taluk.	105.50	1) Strengthening of tank bund. 2) Repairs to Sluice & Weir. 3) Desilting of Supply Channel. 4) Improvements to field channels.	1	10.00
28)	Rehabilitation of Odala-vadi tank in Polur Taluk.	173.00	1) Strengthening of tank bund by desilting of tank. 2) Repairs to Weir. 3) Improvements to field channels.	1	10.00
29)	Rehabilitation of Senga-putheri tank in Polur Taluk.	54.57	1) Strengthening of tank bund. 2) Repairs to Sluice & Weir. 3) Desilting of Supply Channel. 4) Improvements to field channels.	1	10.00
30)	Rehabilitation of Matta-thari tank in Arni Taluk.	87.30	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Sluice. 3) Improvements to field channels.	1	10.00
31)	Rehabilitation of Vadu-gasathu tank in Arni Taluk.	114.39	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Weir. 3) Improvements to field channels.	1	15.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
32)	Rehabilitation of Vilai Chitteri tank in Arni Taluk.	58.60	1) Strengthening of tank bund by desilting of tank. 2) Repairs to Sluice. 3) Improvements to field channels.	1	10.00
33)	Rehabilitation of Mullandram Big tank in Arni Taluk.	114.53	- do -	1	8.00
34)	Rehabilitation of Sangeethavadi tank in Arni Taluk.	93.89	- do -	1	7.00
35)	Rehabilitation of Van-nankulam tank in Arni Taluk.	112.77	1) Strengthening of tank bund by desilting of tank. 2) Repairs to Sluice & Weir. 3) Improvements to field channels.	1	10.00
36)	Rehabilitation of Kazhi-yur Big tank in Cheyyar Taluk.	214.49	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Sluice & Weir. 3) Eviction of encroachments in the channel and desilting.	1	15.00
37)	Rehabilitation of Koda-nagar tank in Cheyyar Taluk.	76.69	- do -	1	10.00
38)	Rehabilitation of Vada-thinnalur tank in Cheyyar Taluk.	65.15	- do -	1	10.00
39)	Rehabilitation of Naval tank in Cheyyar Taluk.	108.86	- do -	1	10.00
40)	Rehabilitation of Anap-athur tank in Cheyyar Taluk.	166.49	- do -	1	10.00
41)	Rehabilitation of Madi-pakkam tank in Cheyyar Taluk.	122.36	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Sluice & Weir. 3) Eviction of encroachments in the channel and desilting.	1	10.00
42)	Rehabilitation of Irun-gal tank in Cheyyar Taluk.	103.19	- do -	1	10.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
43)	Rehabilitation of Then-senthamangalam tank in Vandavasi Taluk.	29.54	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Sluice & Weir. 3) Eviction of encroachments in the channel and desilting. 4) Improvements to field channels.	1	10.00
44)	Rehabilitation of Thellur tank in Vandavasi Taluk.	54.23	- do -	1	10.00
45)	Rehabilitation of Vazhur Big tank in Vandavasi Taluk.	93.48	- do -	1	10.00
46)	Rehabilitation of Karam Hissa tank in Vandavasi Taluk.	150.55	- do -	1	12.00
47)	Rehabilitation of Saluk-kai Chitheri in Vanda-vasi Taluk.	35.22	- do -	1	5.00
48)	Rehabilitation of Erum-bur Big & Small tank in Vandavasi Taluk.	150.14	- do -	1	10.00
49)	Rehabilitation of Kotha-ndapuram tank in Van-davasi Taluk.	97.17	- do -	1	10.00
50)	Rehabilitation of Peria-kolappalur Big tank in Vandavasi Taluk.	182.19	- do -	1	15.00
51)	Rehabilitation of Vallam Big tank in Vandavasi Taluk.	97.13	- do -	1	10.00
52)	Rehabilitation of Inji-medu tank in Vandavasi Taluk.	87.05	- do -	1	10.00
53)	Rehabilitation of Gen-gapuram tank in Vanda-vasi Taluk.	63.36	- do -	1	10.00
54)	Rehabilitation of Mudalaimadai tank in Thandamapattu Taluk.	82.88	- do -	1	15.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
55)	Rehabilitation of Perumpattam tank Chengam Taluk.	51.68	- do -	1	10.00
56)	Rehabilitation of Kangayanur tank in Polur Taluk.	84.18	- do -	1	10.00
57)	Rehabilitation of Paiyur tank in Arni Taluk.	71.33	- do -	1	10.00
58)	Rehabilitation of Ariyalam peria thangal tank.	46.96	Strengthening bund, Reconstruction of sluice, weir and desilting channel.	1	10.00
59)	Rehabilitation of Ekambaranallur tank in Arni Taluk.	53.48	- do -	1	9.00
60)	Rehabilitation of Erumaivetti tank in Cheyyar Taluk.	31.56	- do -	1	9.00
61)	Rehabilitation of Vilaripattu tank in Cheyyar Taluk.	29.14	- do -	1	9.00
62)	Rehabilitation of Vilanallur tank in Vandavasi Taluk.	56.65	- do -	1	25.00
63)	Rehabilitation of Mavadal tank in Cheyyar Taluk.	14.97	- do -	1	9.30
64)	**Ex- zamin – tanks** Rehabilitation of Kaniya-mpoondi tank in Tiru-vannamalai taluk.	37.74	1) Strengthening of Tank bund by desilting of tank. 2) Repairs to Sluice & Weir. 3) Eviction of encroachments in the channel and desilting. 4) Improvements to field channels.	1	6.00
65)	Rehabilitation of Guda-lur Pudu Eri in Tiruvan-namalai taluk.	33.62	- do -	1	5.00
66)	Rehabilitation of Palli-yampattu tank in Tiru-vannamalai taluk.	36.31	- do -	1	6.00
67)	Rehabilitation of Ponnamedu tank in Tiruvannamalai taluk.	8.31	- do -	1	4.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
68)	Rehabilitation of Vetta-valam mankuttai tank in Tiruvannamalai taluk.	10.35	- do -	1	5.00
69)	Rehabilitation of Vetta-valam Nallathanneer kuttai tank in Tiruvan-namalai taluk.	10.35	- do -	1	3.00
70)	Rehabilitation of Vetta-valam Samuthram tank in Tiruvannamalai taluk.	13.08	1) Strengthening the bund by desilting of tank. 2) Repairs to Sluice & weir 3) Desilting of supply channel 4) Improvements to field channels.	1	6.00
71)	Rehabilitation of Anuk-kumalai tank in Tiruvan-namalai taluk.	26.77	- do -	1	3.00
72)	Rehabilitation of Mada-venakkam Saduperi tank in Polur Taluk.	25.96	- do -	1	5.00
73)	Rehabilitation of Oddiyanthangal tank in Polur Taluk.	25.40	- do -	1	5.00
74)	Rehabilitation of Kakkanur tank in Polur Taluk.	25.06	- do -	1	5.00
75)	Rehabilitation of Sirumoor meleri tank in Arni Taluk.	14.40	1) Strengthening the bund by desilting of tank. 2) Repairs to Sluice & weir 3) Desilting of supply channel 4) Improvements to field channels.	1	5.00
76)	Rehabilitation of Akkur tank in Arni Taluk.	10.14	- do -	1	5.00
77)	Rehabilitation of Sri-nivaspuram Agraharam tank in Arni Taluk.	52.47	- do -	1	6.00

Table 56. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
78)	Rehabilitation of Naval pakkam Chitteri tank in Vandavasi Taluk.	21.10	- do -	1	5.00
79)	Rehabilitation of S.Katteri big tank in Vandavasi Taluk.	44.66	- do -	1	7.00
	Total	**5144.76**		**79**	**710.80**

6.7.7. Rehabilitation of Anicuts

The proposal for rehabilitaion of Anicuts for the year 2010-2011 are furnished in Table 57.

Table 57. Details of Recommended Interventions for Anicuts

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
1)	Rehabilitation of Pan-darapalayam Anicut in Thandarampet Taluk.	19.43	1) Repairs to Anicut Bodywall & Apron. 2) Desilting of Channel.	1	5.50
2)	Rehabilitation of Then-mudiyanur Old Anicut in Thandarampet Taluk.	39.96	- do -	1	7.50
3)	Improvements and Rehabilitation of Kanchi Anicut (Kallar Anicut) and its tanks in Chengam Taluk.	58.71	1) Removal of shoals in front of Anicuts. 2) Repairs to bodywall etc., 3) Repairs to the Apron. 4) Desilting Supply Channels, Renewal of shutters. 5) Retaining wall in the weak portion of channel bund. 6) Rehabilitation of Tanks.	1	10.00
4)	Improvements and Rehabilitation of Kunnathur Anicut and its tanks in Arni Taluk .	734.75	- do -	1	47.00
5)	Improvements and Rehabilitation of Marudhadu Anicut and its tanks in Vandavasi Taluk.	409.98	- do -	1	31.00
	Total	**1262.83**		**5**	**101.00**

6.7.8 Rehabilitation of Tanks and Supply Channel

The details of recommended interventions for rehabilitation of tanks and supply channels for the year 2010-11 are furnished in Table 58.

Table 58. Details of Recommended Interventions for Tanks and Supply Channel

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
1)	Rehabilitation of Periyakalampadi Chitheri in Tiruvannamalai Taluk.	63.66	1) Strengthening the bund by desilting of tank. 2) Desilting of Supply Channel. 3) Improvements to Field Channel.	1	8.00
2)	Rehabilitation of Agaramsibbandi Tank in Tiruvannamalai Taluk.	65.26	1) Strengthening the bund by desilting of tank. 2) Desilting of Surplus Course. 3) Improvements to Field Channel.	1	10.00
3)	Rehabilitation of Sorakulathur Paleri in Tiruvannamalai Taluk.	55.85	1) Strengthening the bund by desilting of tank. 2) Repairs to weir. 3) Desilting of Supply Channel. 4) Improvements to Field Channel.	1	12.00
4)	Rehabilitation of Kattuputhur Tank in Tiruvannamalai Taluk.	51.58	1) Strengthening the bund by desilting of tank. 2) Repairs to Weir. 3) Improvements to Field Channel.	1	8.00
5)	Rehabilitation of Melchengam Pudur Chitheri in Chengam Taluk.	60.22	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	7.00
6)	Rehabilitation of Uchimalaikuppam Tank in Chengam Taluk.	47.89	- do -	1	8.50
7)	Rehabilitation of Oravanthavadi Tank in Chengam Taluk.	97.31	- do -	1	8.50
8)	Rehabilitation of Nathavadi Tank in Chengam Taluk.	77.47	- do -	1	9.00

Table 58. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
9)	Rehabilitation of Setharampattu Tank in Polur Taluk.	42.60	- do -	1	5.00
10)	Rehabilitation of Kuralpakkam Tank in Polur Taluk.	93.08	- do -	1	10.00
11)	Rehabilitation of Thatchampadi Tank in Polur Taluk.	54.26	- do -	1	6.00
12)	Rehabilitation of Siruvallur Tank in Polur Taluk.	150.14	- do -	1	17.00
13)	Rehabilitation of Adaya-pulam Kayapakkam Tank in Arni Taluk.	75.37	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	7.50
14)	Rehabilitation of Lada-varam Sennathur Tank in Arni Taluk.	41.85	- do -	1	5.00
15)	Rehabilitation of Ogaiyur Tank in Arni Taluk.	58.76	- do -	1	6.00
16)	Rehabilitation of Pungambadi Tank in Arni Taluk.	83.82	- do -	1	9.00
17)	Rehabilitation of Melnagar Tank in Arni Taluk.	117.16	- do -	1	12.00
18)	Rehabilitation of Vannankulam Tank in Arni Taluk.	112.72	- do -	1	12.00
19)	Rehabilitation of Vinnamangalam Tank in Arni Taluk.	145.65	- do -	1	16.00
20)	Rehabilitation of Mullipattu Tank in Arni Taluk.	88.04	- do -	1	10.00
21)	Rehabilitation of Thozhupedu Tank in Cheyyar Taluk.	37.23	- do -	1	9.00
22)	Rehabilitation of Kilathur Tank in Cheyyar Taluk.	40.12	- do -	1	11.00
23)	Rehabilitation of Thavasi Tank in Cheyyar Taluk.	39.66	- do -	1	12.00

Table 58. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
24)	Rehabilitation of Thenelepakkam Tank in Cheyyar Taluk.	93.08	- do -	1	21.00
25)	Rehabilitation of Thenkalpakkam Tank in Cheyyar Taluk.	62.32	- do -	1	15.00
26)	Rehabilitation of Kolamandal Tank in Cheyyar Taluk.	24.69	- do -	1	7.00
27)	Rehabilitation of Kurumbur Tank in Cheyyar Taluk.	25.49	- do -	1	7.00
28)	Rehabilitation of Thethurai Big Tank in Cheyyar Taluk.	27.92	- do -	1	8.00
29)	Rehabilitation of Kilneerkundram Tank in Cheyyar Taluk.	68.79	- do -	1	18.00
30)	Rehabilitation of Echur Tank in Cheyyar Taluk.	112.10	- do -	1	28.00
31)	Rehabilitation of Arasur Vannanthangal Tank in Cheyyar Taluk.	6.07	- do -	1	3.00
32)	Rehabilitation of Kodalavady tank in Vandavasi Taluk.	28.33	- do -	1	8.00
33)	Rehabilitation of Manganallur Big Tank in Vandavasi Taluk.	75.20	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	18.00
34)	Rehabilitation of Kaveripakkam Tank in Vandavasi Taluk.	39.26	- do -	1	18.00
35)	Rehabilitation of Elangadu Tank in Vandavasi Taluk.	209.45	- do -	1	26.00
36)	Rehabilitation of Ponnur Big Tank in Vandavasi Taluk.	140.42	- do -	1	20.00
37)	Rehabilitation of Karanai Tank in Vandavasi Taluk.	63.13	- do -	1	16.00

Table 58. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
38)	Rehabilitation of Pernamallur Big Tank in Vandavasi Taluk.	204.05	- do -	1	30.00
39)	Rehabilitation of Namathodu Tank in Vandavasi Taluk.	129.55	- do -	1	20.00
40)	Rehabilitation of Beemanandal tank in Chengam Taluk	51.06	- do -	1	9.00
41	Rehabilitation of Nandhi mangalam tank in Chengam Taluk.	71.42	- do-	1	10.00
42	Rehabilitation of Vilapakkam tank in Polur Taluk	89.75	- do-	1	10.00
43	Rehabilitation of Panaiyur tank in Arni Taluk.	237.15	- do-	1	20.00
44)	Rehabilitation of Kaduganur big tank in Cheyyar Taluk	186.15	- do-	1	15.00
45)	Rehabilitation of Navapakkam tank in Cheyyar Taluk	61.34	- do-	1	25.00
46)	Rehabilitation of Vadanangur tank in Cheyyar Taluk	75.26	- do-	1	15.00
47)	Rehabilitation of Ayyavadi tank Cheyyar Taluk	31.56	- do-	1	10.00
48)	Rehabilitation of Melnarm tank in Cheyyar Taluk	32.37	- do-	1	12.00
49)	Rehabilitation of Kilnethapakkam tank Cheyyar Taluk	59.09	- do-	1	15.00
50)	Rehabilitation of Kilkodungalur tank in Vandavasi Taluk	68.39	- do-	1	14.45
	Total :	**3973.09**		**50**	**636.95**

6.7.9 Rehabilitation of Anicuts

The details of rehabilitation of anicuts along with costs for the year 2011-2012 are furnished in Table 59.

Table 59. Details of Recommended Interventions for Anicuts

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
1)	Rehabilitation of Agarampallipattu Anicut in Thandarampet Taluk	19.03	1) Repairs to Anicut Body wall & Apron. 2) Desilting of Channel.	1	10.00
	Total	**19.03**		**1**	**10.00**

6.7.10 Rehabilitation of Tanks and Supply Channel

The details of recommended interventions for rehabilitation of tanks and supply channel are furnished in Table 60.

Table 60. Details of Recommended Interventions for Tanks and Supply Channel

(Rs. in lakhs)

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
1)	Rehabilitation of Maruthuvampadi Tank in Tiruvannamalai Taluk.	57.70	1) Strengthening the bund by desilting of tank. 2) Reconstruction of Sluice. 3) Desilting of Supply Channel. 4) Improvements to Field Channel.	1	12.00
2)	Rehabilitation of Kamalaputhur Tank in Tiruvannamalai Taluk.	50.17	1) Reconstruction of sluice. 2) Repairs to weir. 3) Improvements to Field Channel.	1	8.00
3)	Rehabilitation of Melpulithiyur Tank in Chengam Taluk.	41.93	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	12.00
4)	Rehabilitation of Melnachipattu Tank in Chengam Taluk.	52.89	- do -	1	9.00
5)	Rehabilitation of Aritharimangalam Tank in Chengam Taluk.	45.22	- do -	1	7.50

Table 60. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
6)	Rehabilitation of Vambalur Tank in Polur Taluk.	92.68	- do -	1	12.00
7)	Rehabilitation of Seyya-nandal Tank in Polur Taluk.	41.62	- do -	1	5.00
8)	Rehabilitation of Senga-putheri Tank in Polur Taluk.	54.63	- do -	1	7.00
9)	Rehabilitation of Randam Korattur Tank in Arni Taluk.	118.17	- do -	1	13.00
10)	Rehabilitation of Virupatchipuram Tank in Arni Taluk.	64.35	- do -	1	7.00
11)	Rehabilitation of Ayyampalayam Tank in Arni Taluk.	94.50	- do -	1	10.00
12)	Rehabilitation of Srini-vasapuram Agraharam Tank in Arni Taluk.	52.45	- do -	1	6.00
13)	Rehabilitation of Pulavambadi Tank in Arni Taluk.	65.29	- do -	1	7.00
14)	Rehabilitation of Malayampattu Tank in Arni Taluk.	30.66	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	5.00
15)	Rehabilitation of Eraiyur Murukkeri in Cheyyar Taluk.	18.05	- do -	1	12.00
16)	Rehabilitation of Kovilampoondi Tank in Cheyyar Taluk.	32.37	- do -	1	5.00
17)	Rehabilitation of Vakkadai Mukkur Hissa Tank in Cheyyar Taluk.	471.06	- do -	1	25.00
18)	Rehabilitation of Vadaelapakkam Tank in Cheyyar Taluk.	62.59	- do -	1	16.00
19)	Rehabilitation of Cheyyatraivendran Tank in Cheyyar Taluk.	32.98	- do -	1	10.00

Table 60. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
20)	Rehabilitation of Alathurai Tank in Cheyyar Taluk.	106.81	- do -	1	22.00
21)	Rehabilitation of Mahajanapakkam Tank in Cheyyar Taluk.	64.75	- do -	1	17.00
22)	Rehabilitation of Karanai Big Tank in Cheyyar Taluk.	60.15	- do -	1	16.00
23)	Rehabilitation of Thirumpoondi Tank in Cheyyar Taluk.	32.37	- do -	1	9.00
24)	Rehabilitation of Thenthandalam Tank in Cheyyar Taluk.	29.14	- do -	1	8.00
25)	Rehabilitation of Vengunam tank in Vandavasi Taluk.	97.94	- do -	1	17.00
26)	Rehabilitation of Melkodungalore Tank in Vandavasi Taluk.	56.66	- do -	1	15.00
27)	Rehabilitation of Kavedu Tank in Vandavasi Taluk.	40.47	- do -	1	15.00
28)	Rehabilitation of Salavedu Tank in Vandavasi Taluk.	42.23	- do -	1	18.00
29)	Rehabilitation of Velliyambakkam Big Tank in Vandavasi Taluk.	82.43	- do -	1	15.00
30)	Rehabilitation of Vangaram Tank in Vandavasi Taluk.	51.77	- do -	1	12.00
31)	Rehabilitation of Irumbedu Chitheri in Vandavasi Taluk.	58.68	- do -	1	12.00
32)	Rehabilitation of Kilpakkam Tank in Vandavasi Taluk.	51.42	1) Strengthening the bund by desilting of tank. 2) Reconstruction of sluice. 3) Repairs to weir. 4) Desilting of Supply Channel.	1	15.00
33)	Rehabilitation of Ariyathur Tank in Vandavasi Taluk.	82.59	- do -	1	18.00

Table 60. Contd.,,, **(Rs. in lakhs)**

Sl. No	Name of Work	Registered Ayacut in Ha.	Component of Works to be carried out	No. of Works	Estimated Amount
34)	Rehabilitation of Kovalai Small Tank in Vandavasi Taluk.	58.70	- do -	1	13.00
35)	Rehabilitation of Irumbedu Murukkeri Tank in Vandavasi Taluk.	29.14	- do -	1	9.00
36)	Rehabilitation of Chetpet Tank in Vandavasi Taluk.	44.92	- do -	1	12.00
37)	Rehabilitation of Ariyapadi Tank in Vandavasi Taluk.	52.66	- do -	1	15.00
38)	Rehabilitation of Nellikuppam tank Chengam Taluk	65.15	- do -	1	10.00
39	Rehabilitation of Veeranandal big tank Chengam Taluk.	62.97	- do -	1	10.00
40)	Rehabilitation of Athurai tank in Polur Taluk.	72.84	- do -	1	10.00
41)	Rehabilitation of Devigapuram tank in Arni Taluk.	45.84	- do -	1	10.00
42)	Rehabilitation of Nedungal big tank in Cheyyar Taluk.	63.53	- do -	1	14.00
43)	Rehabilitation of Mazhu Vangaranai tank in Vandavasi Taluk.	44.11	- do -	1	14.00
44)	Rehabilitation of Salkkai big tank in Vandavasi Taluk.	85.83	- do -	1	14.75
	Total :	**2962.41**		**44**	**529.25**

Source: Records of Executive Engineer, PWD, WRO, Tiruvannamalai.

The details of overall budget requirement for Water Resource Organisation are furnished in Table 61.

Table 61. Details of Over all Budget for Water Resource Organisation Sector

(Rs. in lakhs)

Description of item	Year 2008-2009		Year 2009-2010		Year 2010- 11		Year 2011-12		Total	
	No. of Works	Estimated Amount	No. of Works	Estimated Amount	No. of Works	Estimated Amount	No. of Works	Estimated Amount	No. of Works	Estimated Amount
Rehabilitation of Anicuts.	16	365.00	10	238.70	5	101.00	1	10.00	32	714.70
Rehabili-tation of Tanks and Supply Channels.	65	719.00	79	710.80	50	636.95	44	529.25	238	2596.00
Total:	**81**	**1084.00**	**89**	**949.50**	**55**	**737.95**	**55**	**539.25**	**270**	**3310.70**

It could be seen that a sum of Rs.33.11 crores would be required for meeting out the interventions of Water Resource Organisation Sector.

PROCEEDINGS OF THE MEETING CONDUCTED FOR THE FORMULATION OF NATIONAL AGRICULTURAL DEVELOPMENT PROGRAMME (2008-2009 TO 2011-2012) IN TIRUVANNAMALAI DISTRICT.

DATE: 09.05.2008

THE PRESIDING OFFICER : DISTRICT COLLECTOR TIRUVANNAMALAI

THE CONVENOR : THE JOINT DIRECTOR OF AGRICULTURE TIRUVANNAMALAI.

PARTICIPANTS OF THE MEETING

The Chairman	: District Panchayat Council
The Vice-Chairman	: District Panchayat Council
Members	: District Panchayat Council
Chairmen	: Panchayat Union Councils
Members	: Panchayat Union Councils

Village Panchayat President and Members

The District Joint Director of Agriculture welcomed the Participants.

The District Collector in his address pointed out the importance of Agriculture and Allied activities in over all GDP and raising growth for Agriculture and Allied activities to four per cent.

The Assistant Professor, Centre for Agriculture and Rural Development Studies, Tamil Nadu Agricultural University, Coimbatore presented the Plan proposals and Components for the Department of Agriculture, and allied Departments, Department of Horticulture, Department of Agricultural Engineering, Department of Animal Husbandry, Department of Agricultural Marketing and Agri.Business, Department of Fisheries, Public Works Department (W.R.O), Department of Sericulture and Department of Seed Certification.

The participants discussed and wanted clarifications for the proposals and components presented and made suggestions to the proposals. The Assistant Professor of Tamil Nadu Agricultural University and concerned Heads of Department clarified the issues raised by the participants and made note of the suggestions made.

Plan Proposals

The Approved Plan proposals is as follows:

Department wise proposals approved

(Rs.in Lakhs)

1.	Department of Agriculture	9281.700
2	Department of Horticulture	387.200
3	Department of Animal Husbandry (Dairy +Fisheries)	1525.548
4	Department of Agricultural Engineering	2440.260
5	Department of Agrl.Marketing and Agri.Business	76.293
6	Water Resources Organisation	3310.700
	Total	**17021.701**

The District Panchayat Council Chairman enlightened the importance of National Agricultural Development Programme.

The District Collector emphasized the co-operation of the Panchayat institutions in successful implementation of the National Agricultural Development Programme.

Finally the Deputy Director of Agriculture (GOI) thanked the participants for their expression of views in formulating the Plan Proposals.

Sd.V.Kuppusamy
Joint Director of Agriculture
Tiruvannamalai

திருவண்ணாமலை மாவட்டம்
வேளாண்மைத்துறை

தேசிய வேளாண்மை வளர்ச்சி திட்டம்

மாவட்ட, வட்டார அளவிலான பஞ்சாயத்து பிரதிநிதிகளின்

ஆலோசனை கூட்ட அழைப்பிதழ்

அன்புடையீர், வணக்கம்.

நிகழும் திருவள்ளுவராண்டு 2039 சித்திரை திங்கள் 27ஆம் நாள் (09-05-2008) வெள்ளிக்கிழமை அன்று மாலை 4-00 மணியளவில் திருவண்ணாமலை, வேங்கிக்காலில் அமைந்துள்ள ஆண்டாள் சிங்காரவேலன் திருமண மண்டபத்தில் தேசிய வேளாண்மை வளர்ச்சி திட்டத்தின்கீழ் திருவண்ணாமலை மாவட்டத்திற்கான வேளாண்மை வளர்ச்சி திட்டங்களை தயாரிக்கும் பொருட்டு மாவட்ட, வட்டார அளவிலான பஞ்சாயத்து பிரதிநிதிகளின் ஆலோசனைக் கூட்டம் சிறப்பாக நடைபெற உள்ளது.

இவ்விழாவிற்கு
திருவண்ணாமலை மாவட்ட ஆட்சித்தலைவர்
திரு. **சத்யபிரத சாகு,** இ.ஆ.ப. அவர்கள்
தலைமையேற்கவும்

மாவட்ட ஊராட்சி குழு தலைவர்
திரு. **மு.பெ.கிரி** அவர்கள்
முன்னிலை வகிக்கவும்
அன்புடன் இசைந்துள்ளார்கள்.

இந்நிகழ்வில் வேளாண்மைத்துறை, தோட்டக்கலைத்துறை, வேளாண்மை பொறியியல் துறை, வேளாண்மை விற்பனை மற்றும் வேளாண் வணிகத்துறை, பொதுப்பணித்துறை, கால்நடை பராமரிப்புத்துறை, பட்டு வளர்ப்புத்துறை, மீன் வளத்துறைகளின் மாவட்ட அலுவலர்கள், மத்திய கூட்டுறவு வங்கி, நபார்டு வங்கி, தேசிய மயமாக்கப்பட்ட வங்கிகளின் பிரதிநிதிகள் மற்றும் தமிழ்நாடு வேளாண்மை பல்கலைக்கழக பேராசிரியர்கள் கலந்து கொண்டு சிறப்பிக்க உள்ளார்கள். இந்நிகழ்ச்சியில் மாவட்ட பஞ்சாயத்து உறுப்பினர்கள், ஊராட்சி ஒன்றியக்குழு பெருந்தலைவர்கள், துணைத்தலைவர்கள் மற்றும் மாவட்டத்தின் ஊராட்சி ஒன்றிய குழுக்களின் உறுப்பினர்களும் கலந்து கொண்டு சிறப்பிக்குமாறு அன்புடன் அழைக்கின்றோம்.

இவண்,
திரு. **வி.குப்புசாமி,** எம்.எஸ்.ஸி (விவ)
வேளாண்மை இணை இயக்குநர்
திருவண்ணாமலை.

District Level NADP Meeting Conducted at Thiruvannamalai

Women Panchayat Presidents participated in the NADP District Plan Meeting

TNAU Scientist and JDA Explained the Components Involved in the NADP District Plan

District Collector Explained the Importance of NADP District Plan

Farmers and All Line Department Official's Participated in the NADP District Plan Meeting

Joint Direct of Agriculture Explained the NADP Activities to the District Collector

Panchayat President's and Councilors participated in the District Level NADP meeting conducted at Thiruvannamalai

தினகரன்

திருவண்ணாமலை

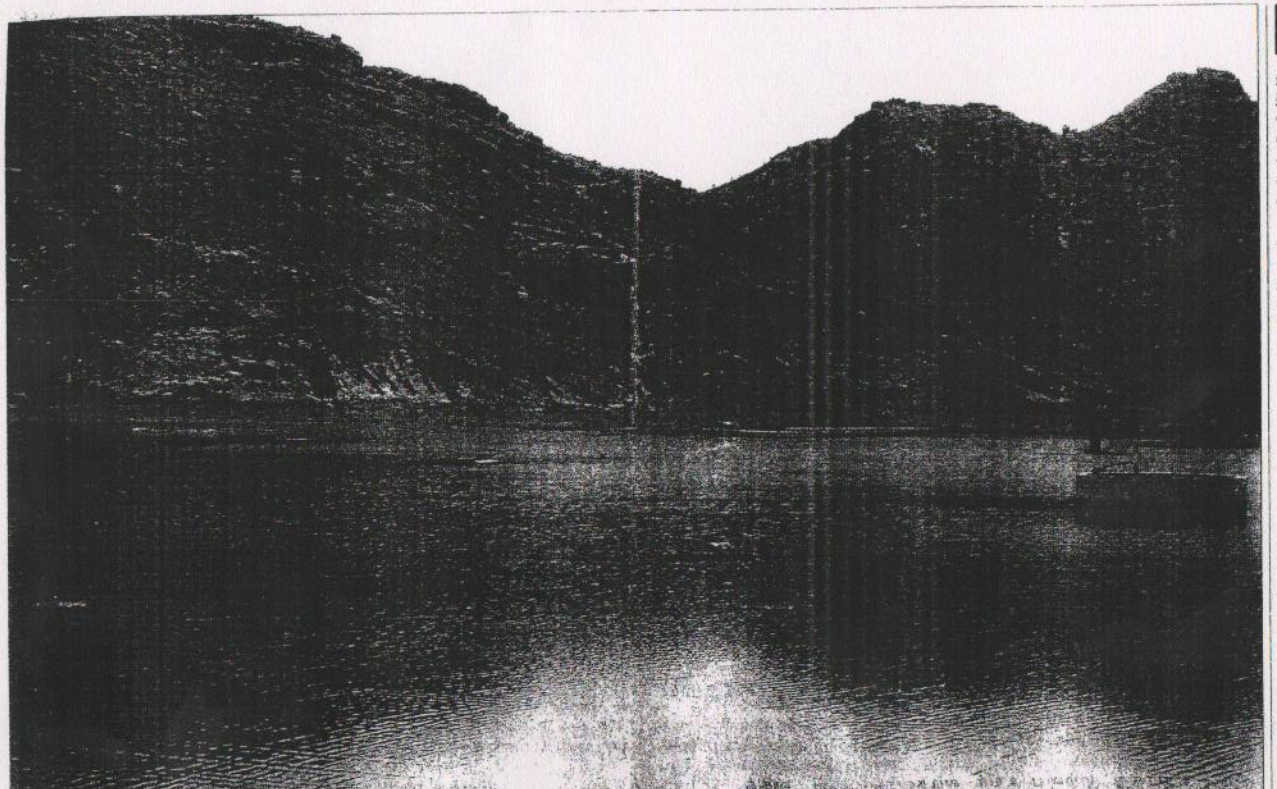
வணிகர் தினம் கடைகள் அடைப்பு

பக்கம் 18

செவ்வாய்க்கிழமை 6.5.2008

திருவண்ணாமலையில்

பஞ்சாயத்து பிரதிநிதிகள் ஆலோசனை கூட்டம்



வேலூர் ஓட்டேரியில் கடந்த பிப்ரவரி-மார்ச் மாதம் வரை 27 அடி தண்ணீர் இருந்தது தற்போது கோடை வெயிலையொட்டி ஒரே மாதத்தில் 15 அடியாக நீர் குறைந்து காணப்படுகிறது.

9ம் தேதி நடக்கிறது

திருவண்ணாமலை, மே 6: திருவண்ணாமலையில் வருகிற 9-ந் தேதி பஞ்சாயத்து பிரதிநிதிகள் ஆலோசனை கூட்டம் கலெக்டர் சத்யபிரதசாகு தலைமையில் நடைபெற உள்ளது.

திருவண்ணாமலை மாவட்ட தேசிய வேளாண்மை வளர்ச்சி திட்டத்தின் கீழ் திருவண்ணாமலை மாவட்டத்திற்கான, வேளாண்மை வளர்ச்சிக்கான திட்டங்களை தயாரிக்கும் பொருட்டு மாவட்ட வட்டார அளவிலான பஞ்சாயத்து பிரதிநிதிகள் கூட்டம் திருவண்ணாமலை ஆனந்தா சிங்கார வேலன் திருமண மண்டபத்தில் வருகிற 9-ந் தேதி வெள்ளிக்கிழமை காலை 10 மணியளவில் நடைபெறுகிறது. கூட்டத்திற்கு கலெக்டர் சத்யபிரதசாகு தலைமை தாங்குகிறார். மாவட்ட ஊராட்சி குழு தலைவர் முனுசாமி முன்னிலை வகிக்கிறார்.

இக்கூட்டத்தில் மாவட்டத்தில் உள்ள அனைத்து ஊராட்சி ஒன்றியங்களின் தலைவர்கள், துணை தலைவர்கள், மாவட்ட பஞ்சாயத்து உறுப்பினர்கள், ஊராட்சி ஒன்றியக் குழு உறுப்பினர்கள் கலந்து கொள்கிறார்கள். இக்கூட்டத்தில் திருவண்ணாமலை மாவட்டத்திற்கு 11-வது ஐந்தாண்டு திட்ட காலத்திற்கு தேசிய வேளாண்மை வளர்ச்சி திட்டத்தின் கீழ் நிறைவேற்ற வேண்டிய வேளாண்மை வளர்ச்சி திட்டங்கள் குறித்து விவாதித்து முடிவு செய்யப்படுகிறது.

நடப்பு பதினோராவது ஐந்தாண்டு திட்டத்தின் கீழ் வேளாண்மை வளர்ச்சியினை உயர்த்தும் பொருட்டு மத்திய அரசாங்கம் திட்டங்களை வகுத்துள்ளது. இத்திட்டத்தின் அந்தந்த பகுதிகளின் பருவம், நீர் நிலவள ஆதாரங்கள் மற்றும் காலநடை வளம் பாலவளம் மற்றும் மீன்வளம் இவைகளை கருத்தில் கொண்டு ஒரு திட்டமானது வகையில் திட்டம் தயார்க்கப்படும்.

இந்த திட்டச்சிறப்பு திட்டங்களை சுவை வண்ணை பொறியியல் துறை, வணிகத்துறை, பட்டு வளர்ச்சித்துறை, பொதுப்பணித்துறை, கூட்டுறவுத் துறை, நபார்டு வங்கி, தேசியமயமாக்கப்பட்ட வங்கிகளின் பிரதிநிதிகள் பலர் பங்கேற்கின்றனர்.

இந்த தகவலை கலெக்டர் சத்யபிரதசாகு தெரிவித்துள்ளார்.

நம் தினமதி - 03-5-2008

தி.மலையில் பஞ்சாயத்து பிரதிநிதிகள் கலெக்டர் தலைமையில் ஆலோசனை

திருவண்ணாமலை,மே 3-

தேசிய வேளாண்மை வளர்ச்சி திட்டம் தொடர்பான மாவட்ட, வட்டார அளவிலான பஞ்சாயத்து பிரதிநிதிகள் ஆலோசனை கூட்டம் வருகிற 9-ந்தேதி திருவண்ணாமலையில் மாவட்ட ஆட்சித்தலைவர் சத்யபிரதசாகு தலைமையில் நடைபெறுகிறது.

கூட்டத்திற்கு மாவட்ட ஆட்சித்தலைவர் சத்யபிரதசாகு தலைமை தாங்குகிறார். மாவட்ட ஊராட்சிக்குழு தலைவர் மு.பெ.கிரி முன்னிலை வகிக்கிறார். மாவட்ட பஞ்சாயத்து உறுப்பினர்களும் பங்கேற்கின்றனர். மேலும், மாவட்டத்தில் உள்ள அனைத்து ஊராட்சி ஒன்றியங்களின் தலைவர்கள், துணைத்தலைவர்கள், ஒன்றியக்குழு உறுப்பினர்களும் கலந்துகொள்கின்றனர்.

கூட்டத்தில் திருவண்ணாமலை மாவட்டத்திற்கு 11வது ஐந்தாண்டு திட்ட காலத்திற்கு தேசிய வேளாண்மை வளர்ச்சி திட்டத்தின்கீழ் நிறைவேற்றப்பட வேண்டிய வேளாண்மை வளர்ச்சி திட்டங்கள் குறித்து விவாதித்து முடிவு செய்யப்படும்.

நடப்பு 11வது ஐந்தாண்டு திட்டத்தின்கீழ் வேளாண் வளர்ச்சியை உயர்த்தும்பொருட்டு மத்திய அரசு திட்டங்களை வகுத்துள்ளது. இத்திட்டத்தில் அந்தந்த பகுதிகளின் பருவம் நீர், நிலவள ஆதாரங்கள் மற்றும் கால்நடை வளம், பால்வளம் மற்றும் மீன்வளம் இவைகளை கருத்தில்கொண்டு ஒருங்கிணைந்த வகையில் திட்டம் தயாரிக்கப்படும்.

இந்நிகழ்ச்சியில் தோட்டக்கலைத்துறை, வேளாண்மை பொறியியல் துறை, வேளாண்மை விற்பனை மற்றும் வணிகத் துறை, பட்டு வளர்ச்சித்துறை, கால்நடை பராமரிப்புத்துறை, மீன் வளர்ச்சித்துறை, பொதுப்பணித்துறை, கூட்டுறவுத்துறை, நபார்டு வங்கி, தேசியமயமாக்கப்பட்ட வங்கிகளின் பிரதி நிதிகள் கலந்துகொள்கின்றனர்.

தினகரன் ஞாயிற்றுக்கிழமை 11.5.2008

தேசிய வேளாண்மை வளர்ச்சி குறித்து

உள்ளாட்சி பிரதிநிதிகளுடன் ஆலோசனை கூட்டம்

கலெக்டர் தலைமையில் நடந்தது

திருவண்ணாமலை,மே 11: தி.மலை மாவட்டத்தில் நடைமுறைப்படுத்தப்பட உள்ள தேசிய வேளாண்மை வளர்ச்சி திட்ட நடைமுறைகள் குறித்து உள்ளாட்சி பிரதிநிதிகளுடன் கலெக்டர் சத்யபிரதசாகு ஆலோசனை நடத்தினார்.

தேசிய வேளாண்மை வளர்ச்சி திட்ட ஆலோசனைக் கூட்டம் தி.மலையில் நடந்தது.

கலெக்டர் சத்யபிரதசாகு தலைமை தாங்கினார். மாவட்ட ஊராட்சிக்குழு தலைவர் மு.பெ. கிரி, துணைத் தலைவர் வ. அன்பழகன் ஆகியோர் முன்னிலை வகித்தனர். முன்னதாக வேளாண் இணை இயக்குனர் வி. குப்புசாமி வரவேற்றார்.

தேசிய வேளாண்மை வளர்ச்சி திட்டம் குறித்து, தமிழ்நாடு வேளாண்மை பல்கலைக்கழக உதவி பேராசிரியர் பிரேமாவதி, பொதுப்பணித் துறை நீர்வள ஆதாரப் பிரிவு செயற்பொறியாளர் வள்ளிகந்தன், கால்நடை பராமரிப்புத்துறை மண்டல இணை இயக்குனர் பொன்கூத்தன், மீன்வளத்துறை உதவி இயக்குனர் கலியமூர்த்தி, வேளாண்மை துணை இயக்குனர் (மத்திய அரசு திட்டங்கள்) பிரான்சிஸ் ஆகியோர் விளக்கம் அளித்தனர்.

வேளாண்மை தொடர்புடைய அனைத்து துறைகளையும் ஒருங்கிணைந்து, விவசாய வளர்ச்சியை அதிகரிக்கும் வகையில் இத்திட்டம் மத்திய அரசால் மேற்கொள்ளப்பட உள்ளது. கடந்த 1.4.2008 முதல் நடைமுறைக்கு வந்துள்ள இத்திட்டத்தில் செய்ய வேண்டிய திருத்தங்கள், விவசாயிகளை பங்கேற்க வைப்பதற்கான ஆலோசனைகள் குறித்து உள்ளாட்சி பிரதிநிதிகளிடம் கலெக்டர் சத்ய பிரதசாகு கருத்து கேட்டறிந்தார். அதன் அடிப்படையில் மத்திய அரசுக்கு தேவையான பரிந்துரைகள் அளிக்கப்பட உள்ளன.

தேசிய வேளாண்மை வளர்ச்சி திட்டம் குறித்து திருவண்ணாமலையில் உள்ளாட்சி பிரதிநிதிகளுடன் கலாந்தாய்வு கூட்டத்தில் அதிகளவில் நெல் மகசூல் ஈட்டிய விவசாயிக்கு, கலெக்டர் சத்யபிரதசாகு ரூ.15 ஆயிரம் ரொக்க பரிசு வழங்கினார்.

கிராமங்களில் மீண்டும் கசிவுநீர் குட்டைகள்

ஊராட்சி பிரதிநிதிகள் கோரிக்கை

திருவண்ணாமலை வேங்கிக்காலில் வெள்ளிக்கிழமை நடந்த தேசிய வேளாண் வளர்ச்சித் திட்ட ஊராட்சி பிரதிநிதிகள் கூட்டத்தில் பேசுகிறார் திருவண்ணாமலை மாவட்ட ஆட்சியர் சத்யபிரதசாஹூ.

திருவண்ணாமலை, மே 10: கிராமங்களில் மீண்டும் அரசு கசிவுநீர் குட்டைகளை அமைக்க வேண்டும் என்று ஊராட்சி பிரதிநிதிகள் கோரிக்கை விடுத்தனர்.

திருவண்ணாமலை வேங்கிக்காலில் வெள்ளிக்கிழமை தேசிய வேளாண்மை வளர்ச்சித் திட்டம் குறித்த மாவட்ட, வட்டார அளவிலான ஊராட்சி பிரதிநிதிகள் ஆலோசனைக் கூட்டம் நடந்தது.

கால்நடைகள் வாங்க மகளிர் சுய உதவி குழுக்களுக்கு வங்கி மூலம் அரசு கடனுதவி வழங்குகிறது. ஆனால் பெரும்பாலான மகளிர் குழுக்கள் கடன் தொகையை தொழில் செய்ய பயன்படுத்தாமல் வட்டிக்கு விடுகின்றனர்.

அரசு விவசாயிகள் நலன் கருதி பல் வேறு திட்டங்களை அறிவித்தாலும் அவை விவசாயிகளை சென்றடைவதில்லை.

திருவண்ணாமலை மாவட்டத்தில் உள்ள உரக்கடைகளில் உரங்கள் உரிய விலையில் விவசாயிகளுக்கு கிடைப்பதில்லை. அவை கள்ளமார்கெட்டில் கூடுதல் விலைக்கு விற்கப்படுகிறது என்று ஊராட்சி பிரதிநிதிகள் குறை கூறினர்.

உரங்கள் கூடுதல் விலைக்கு விற்பனை செய்யும் கடைக்காரர்கள் மீது கடும் நடவடிக்கை எடுக்க வேண்டும் என்றும் கேட்டுக் கொண்டனர்.

மாவட்டத்தில் வேளாண் இடுபொருள்கள் விவசாயிகளுக்கு உரிய நேரத்தில் வழங்க வேண்டும். மண்வெட்டி, கடப்பாறை போன்ற வேளாண் கருவிகளை அரசு 50 சதவீத மானிய விலையில் வழங்க வேண்டும்.

பயிர்களை அறுவடை செய்ய ஒன்றிய அளவில் இரு இயந்திரங்களை அரசு வேளாண் பொறியியல் துறை மூலம் வாடகைக்கு விடவேண்டும் என்று கூட்டத்தில் கோரிக்கை வைக்கப்பட்டது.

கூட்டத்துக்கு ஆட்சியர் சத்யபிரதசாஹூ தலைமை தாங்கினார். வேளாண் இணை இயக்குநர் வி. குப்புசாமி முன்னிலை வகித்தார். மாவட்ட ஊராட்சித் தலைவர் மு.பெ.கிரி கூட்டத்தை தொடங்கி வைத்தார்.

துணைத் தலைவர் அன்பழகன், வங்கி அலுவலர்கள் நாராயணன், ஸ்ரீநிவாசன், திருவண்ணாமலை வட்டாட்சியர் ஆர். சந்திரசேகரன் உள்ளிட்டோர் பங்கேற்றனர்.

தினமலர் வேலூர் 11-5-2008

தேசிய வேளாண் திட்டம் வெற்றிபெற மக்களும், அதிகாரிகளும் ஒத்துழைக்கணும்

தி.மலை கலெக்டர் வலியுறுத்தல்

திருவண்ணாமலை, மே 11-

திருவண்ணாமலை மாவட்ட உள்ளாட்சி பிரதிநிதிகளுடன் தேசிய வேளாண் வளர்ச்சி திட்டம் குறித்த ஆலோசனை கூட்டம் கலெக்டர் தலைமையில் நடந்தது.

மாவட்ட வேளாண்மை துறையின் சார்பில் தேர்ந்தெடுக்கப்பட்ட உள்ளாட்சி அமைப்புகளின் பிரதிநிதிகளோடு தேசிய வேளாண் வளர்ச்சி திட்டம் குறித்த ஆலோசனை கூட்டம் தி.மலை வேங்கிக்கால் ஊராட்சியிலுள்ள ஆண்டாள் சிங்காரவேல் திருமண மண்டபத்தில் கலெக்டர் சத்தியபிரதசாகு தலைமையில் நடந்தது. மாவட்ட ஊராட்சிக்குழு தலைவர் கிரி, துணைத்தலைவர் அன்பழகன் முன்னிலை வகித்தனர். வேளாண் இணை இயக்குனர் குப்புசாமி வரவேற்றார்.

கலெக்டர் சத்தியபிரதசாகு பேசியதாவது:

வேளாண்மை வளர்ச்சியை அதிகப்படுத்தும் நோக்கத்தோடு மத்திய அரசு தேசிய வேளாண்மை வளர்ச்சித் திட்டத்தை கொண்டு வந்துள்ளது. இத்திட்டத்தை செயல்படுத்த மாவட்ட அளவிலான வேளாண்மை வளர்ச்சி திட்டம் தயாரிக்கப்பட்டு மாநில அளவில் அத்திட்டம் தொகுக்கப்பட்டு மத்திய அரசின் ஒப்புதல் பெறவேண்டும்.

இத்திட்டத்தில் விவசாயிகள் வாழ்க்கை தரம் உயரும் வகையில் ஒட்டுமொத்த பண்ணையின் உற்பத்தியை அதிகப்படுத்தவும் விவசாயிகள் அதிக வருவாய் ஈட்டிடவும் திட்டமிடப்பட்டு இதற்காக வேளாண்மை தோட்டக்கலைத்துறை, வேளாண்மை பொறியியல், நீர்வள ஆதாரம், கால்நடை பராமரிப்பு, பட்டு வளர்ச்சி, மீன் வளம் மற்றும் வேளாண் விற்பனை ஆகிய துறைகளுக்கான திட்டங்கள் தமிழ்நாடு வேளாண்மை பல்கலை கழகத்தால் ஒருங்கிணை திட்டம் தயாரித்துள்ளது.

இத்திட்டம் தயாரிப்பில் கிராம, வட்டார மாவட்ட அளவிலான உள்ளாட்சி பிரதிநிதிகள் ஆலோசனைகள் பெறப்பட்டு திட்டம் தயாரிக்கப்படுகிறது. அதற்காகத்தான் உள்ளாட்சி பிரதிநிதிகளில் கூட்டம் நடத்தப்படுகிறது.

வேளாண்மையினால் பொருட்கள் உலக அளவில் விற்பனை செய்யப்படுகிறது. சர்க்கரை அந்த காலத்தில் உற்பத்தி பற்றாக்குறையாக இருந்தது. தற்போது சர்க்கரை உற்பத்தி அதிகரித்து வெளி நாடுகளுக்கு ஏற்றுமதி செய்யப்படுகிறது. பூ உற்பத்தி செய்யப்பட்டு வாசனை பொருடகள் தயாரிக்கப்படுகிறது.

வேளாண் திட்டங்களில் மக்களும், மக்களும் பிரதிநிதிகளும், அரசு அதிகாரிகளும் ஒருங்கிணைந்து கூட்டாக செயல்பட்டால் வெற்றி பெற முடியும். இத்திட்டம் ஐந்து ஆண்டுகளுக்கு தயாரிக்கப்பட்டு ரூ.132 கோடி ஒதுக்கீடு செய்யப்பட்டு சம்மந்தப்பட்ட துறைகளுக்கு நிதி பங்கீடு செய்து திட்டம் செயல்படுத்தப்பட வுள்ளது.எனவே மக்கள் பிரதிநிதிகள் தங்களது ஆலோசனைகளை அரசு அதிகாரிகளிடம் தெரிவித்து இத்திட்டம் வெற்றிகரமாக செயல்பட ஒத்துழைக்க வேண்டும்.

இவ்வாறு கலெக்டர் பேசினார்.

கூட்டத்தில் இணை இயக்குனர் (கால்நடை) பொன் கூத்தன், செயற்பொறியாளர் நீர்வளம் வள்ளிகாந்தன், உதவி இயக்குனர்கள் தோட்டக்கலை ரவி, மீன்வளம் கலியமூர்த்தி, நபார்டு வங்கி உதவி பொதுமேலாளர் நாராயணன், பல்வேறு துறை அதிகாரிகள், மக்கள் பிரதிநிதிகள் அரசு அலுவலர்கள் கலந்து கொண்டனர்.

வேளாண்மை துணை இயக்குனர் பிரான்சிஸ் நன்றி கூறினார்.

CHENNAI
THE HINDU • MONDAY, MAY 12, 2008

Rs. 132-crore proposal to be sent for Centre's approval

Special Correspondent

TIRUVANNAMALAI: The district administration will be sending a proposal for Rs.132 crore to the Union government for the implementation of the five-year National Agricultural Development Programme (NADP) in Tiruvannamalai district.

This was disclosed by Collector Satyabrata Sahoo at a consultation meeting held with the officials of the agriculture and allied departments and local body representatives at the district, panchayat union and village panchayat levels at Vengikkal near here on Friday.

Mr. Sahoo said that a district-level agricultural development programme should be formulated and integrated into the State-level project before being submitted to the Centre for approval.

The programme aims at augmenting income of farmers

The programme aims at augmenting the income of the farmers and improving the quality of their life by adopting strategies to increase production.

The Tamil Nadu Agricultural University (TNAU), Coimbatore, would be involved in formulating the project report by coordinating with the Departments of Agriculture, Horticulture, Agricultural Engineering, Animal Husbandry, Sericulture, Fisheries, and Agricultural Marketing, and the Water Resources Organisation (WRO) of the Public Works Department.

Mr. Sahoo said that the project would be prepared after incorporating the views of the three-tier local body representatives.

It would be successful only through joint efforts of the people's representatives and the officials.

Once the funds are sanctioned, they would be apportioned to the various departments for the implementation of the project.

V. Kuppusamy, Joint Director of Agriculture, welcomed the gathering. Premavathy, Assistant Professor, TNAU, Pon Koothan, Joint Director of Animal Husbandry, Vallikanthan, Executive Engineer, WRO, PWD, M. Ravi, Assistant Director of Horticulture, Kaliyamoorthy, Assistant Director of Fisheries, S. Narayanan, Assistant General Manager, National Bank for Agriculture and Rural Development, and M. Vijayakumar, Information and Public Relations Officer, participated in the meeting. S. Francis, Deputy Director of Agriculture, proposed vote of thanks.